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# Running head: COPING MECHANISMS, PERSONALITY, AND CONFLICT MANAGEMENT

An Investigation of Whether Coping Mechanisms Mediate the Relationship between

Personality Traits and Conflict Management Styles

By

Julie Pepin

A Thesis Submitted to Saint Mary's University

Halifax, Nova Scotia

in Partial Fulfillment of the Requirements for the

Master of Science Degree in Industrial/Organizational Psychology

September, 2005

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Approved: Dr. Debra Gilin

Supervisor

Approved: Dr. Camilla Holmvall

**Examining Committee Member** 

Approved: Dr. James Cameron

**Examining Committee Member** 

Approved: Dr. Judy Haiven

**Examining Committee Member** 

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# Table of Contents

Acknowledgements	5
List of Tables	6
List of Figures	7
Abstract	8
Introduction	9
Goals of the Proposed Study	10
Stress and Coping	11
The Impact of Personality on the Stress-Coping Response	13
Organizational Conflict and Conflict Management Styles	16
The Impact of Personality on Conflict Management Styles	18
The Impact of Stress and Coping on Conflict Management Styles	20
Assessing the Mediating Effects of Coping Mechanisms on	
Personality Dimensions and Conflict Styles	23
Method	28
Participants	28
Materials	29
Procedure	35
Preliminary Analyses	36
Results	55
Correlation between Variables	55
Hypotheses 1 – 3	55
Hypotheses 4 – 7	60
Hypotheses 8 – 12	63

Hypothesis 13	66
Discussion	70
Limitations of this Study and Future Research	83
Implications of this Study	87
Conclusions	88
References	90
Appendices	
A. REB Certificate	98
B. Informed Consent Form	99
C. Comparing Mean Differences for Job Tenure	100
D. The Demographic Interview	102
E. Organizational Conflict Situation Question	104
F. Open-Ended Question Coding Scheme	105
G. Study Instructions	111

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# List of Tables

1.	Demographics of the Participants	. 30
2.	Factor Correlation Matrix for the Brief COPE	.38
3.	Questionnaire Items and Factor Loadings of the Brief COPE	.40
4.	Factor Correlation Matrix for the ROCI-II	.44
5.	Questionnaire Items and Factor Loadings of the ROCI-II	. 45
6.	Rotated Component Loadings of the NEO-FFI Items	.51
7.	Descriptive Statistics, Internal Consistency Coefficients, and Observed	
	Intercorrelations for the NEO-FFI, ROCI-II and Brief COPE	. 56
8.	Regression Analyses for Coping Strategies as Predicted by	
	Personality Traits	. 58
9.	Regression Analyses for Conflict Styles as Predicted by	
	Personality Traits	. 61
10.	Regression Analyses for Conflict Styles as Predicted by	
	Coping Mechanisms	. 64
11.	Regression Analyses for the Mediating Effects of Coping Mechanisms	
	on the Cooperation Style	.71
12.	Regression Analyses for the Mediating Effects of Coping Mechanisms	
	on the Avoiding Style	. 72
13.	Regression Analyses for the Mediating Effects of Coping Mechanisms	
	on the Dominating Style	. 73
14.	Regression Analyses for the Mediating Effects of Coping Mechanisms	
	on the Obliging Style	. 74

# List of Figures

1.	The Mediating Effects of Coping Mechanisms on the Relationship	
	between Personality Traits and Conflict Management Styles	24
2.	Scree Plot Indicating the Presence of a Five-Structure	
	for the NEO-FFI.	50

An Investigation of Whether Coping Mechanisms Mediate the Relationship between Personality Traits and Conflict Management Styles

## By Julie Pepin

#### **Abstract**

The purpose of this study was to evaluate the relationship between conflict management styles, personality traits, and coping mechanisms. Specifically, I examined whether coping mechanisms were predicted by personality styles as defined by the Big Five personality factors, whether interpersonal conflict management styles were predicted by personality factors and dispositional coping mechanisms, and lastly, whether coping mechanisms mediated the relationship between personality traits and conflict management styles. In a sample of 235 working individuals, results showed that, although conflict management styles were significantly predicted by personality factors and by problem-focused coping, the hypothesized mediating effects of dispositional coping mechanisms in the relationship between conflict management styles and personality dimensions of the Five-Factor Model (FFM) failed to show significance. These results suggest that coping mechanisms may not play a pivotal role in the relationship linking personality traits and conflict management styles.

Date of submission: September 26, 2005

#### Introduction

It is well recognized that the health consequences of prolonged exposure to stress depend largely on individuals' strategies to cope with the situation (Sandal, Andresen, Vaernes, & Ursin, 1999). In fact, the theoretical bases of the relationship between coping and stress were established by Lazarus and Folkman (1984) who argued that coping styles were a key element for adaptation to stress. Indeed, coping is believed to be part of a transactional process between the individual and the environment, which impacts mental and physical health functioning.

The study of stress and coping has had a long tradition in the field of personality psychology (Vollrath, 2001), and one's tendency to use particular coping mechanisms is suggested to be a stable, internal personality trait (Costa & McCrae, 1993). Not surprisingly, the Big Five personality dimensions of the Five-Factor Model (FFM) are said to be linked to specific dispositional coping mechanisms (Vollrath & Torgersen, 2000). For example, it is generally recognized that extraversion, agreeableness, and conscientiousness are related to active coping strategies, such as planning and problem-solving (O'Brien & DeLongis, 1996).

In addition to coping mechanisms, the FFM is shown to predict one's preferred conflict management strategies. For example, agreeableness and neuroticism have been shown to be negatively related to the dominating way of handling interpersonal conflict (Antonioni, 1998). Overall, these findings show that both coping mechanisms and conflict management styles are predicted by stable, dispositional, individual variables such as personality traits.

Organizational conflict is inevitable and its management is necessary to ensure a healthy workplace. Therefore, it should come as no surprise that conflict management

skills are recognized to be among the core competencies employees should possess to be effective collaborators (Yukl, 1994). In fact, considerable evidence points to the detrimental health-related consequences of unmanaged organizational conflicts. For example, unmanaged or mismanaged organizational conflicts typically create high levels of stress, and restrain workers' ability to function in a positive and productive manner, which consequently leads to negative outcomes for their health and wellbeing (McKenzie, 2002).

Taken together, the aforementioned findings suggest that Big Five personality dimensions are related to coping mechanisms, as well as to conflict management styles which are related to stress and wellbeing. Considering these relationships, it would make intuitive sense to establish a tripartite model linking personality dimensions as explained by the FFM, coping mechanisms and conflict management styles. However, there have been few attempts to integrate literature from these three areas of research, and no theoretical model explaining the relationship between dispositional coping mechanisms, personality dimensions, and conflict management styles has been proposed.

#### Goals of the Proposed Study

Four main questions were addressed in this study: (1) what is the pattern of the relationships between FFM personality dimensions and coping mechanisms? This study aims to replicate the findings from Hooker, Frazier, and Monaham (1994), who found clear patterns of relationships between Big Five personality traits and dispositional coping mechanisms. (2) What is the pattern of the relationship between FFM personality dimensions and conflict management styles? Similarly, this study attempts to replicate the findings from two previous studies (Antonioni, 1998; Moberg, 2001) which found support for the existence of specific links between personality traits as explained by the

FFM and conflict management styles. (3) What is the relationship between coping mechanisms and conflict management styles? I wish to understand how coping mechanisms relate to conflict management styles in an organizational setting. Although there are indications that relationships between coping strategies and conflict styles exist (e.g., Lepore, 1995), research addressing this issue is lacking in the I/O literature. (4) Do coping mechanisms mediate the relationship between personality traits and conflict styles? In other words, does the addition of coping mechanisms to the prediction of conflict management styles by personality traits change the relationship between personality and conflict styles? Also, if coping mechanisms are shown to mediate the relationship between personality traits and conflict styles, how specifically do they do so?

## Stress and Coping

Holmes and Rahe (1967) were among the first scholars to make a connection between the occurrence of particular life events and the onset of illnesses. Since their landmark research, the importance that life events have upon both emotional states and physical illness has been documented extensively in the literature (Lefcourt, 2001). For instance, the results from studies generally show that exposure to stress predicts a range of both physical and mental health problems, namely high-blood pressure (Schwartz, Pickering, & Landsbergis, 1996), depression (Kwon & Laurenceau, 2002), and drug addiction (Goeders, 2003).

Coping is thought to be a major component in the relationship between the experience of stress and health (Oakland & Ostell, 1996). Coping is defined as "a response aimed at diminishing the physical, emotional, and psychological burden that is linked to stressful life events and daily hassles" (Snyder & Dinoff, 1999, p. 5). While there is some empirical support for the existence of various dimensions of coping, there is

a lack of consensus on the structure of coping (Skinner, Edge, Altman, & Sherwood, 2003). Consequently, coping has been categorized in various manners throughout the years. For example, some researchers have divided coping into problem-focused and emotion-focused (e.g., Lazarus & Folkman, 1984), approach versus avoidance coping (e.g., Roth & Cohen, 1986), control versus escape coping (see Latack & Havlovic, 1992), and direct versus indirect coping strategies (e.g., Barrett & Campos, 1991). Despite this lack of consensus regarding the structure of coping, scholars generally agree that the study of coping is fundamental to an understanding of how stress affects people, and that individuals possess a repertoire of coping styles. The reader should note that coping styles, mechanisms and strategies will be used interchangeably in the current study, since research does not make a distinction between these terminologies.

In a critique of Lazarus and Folkman's (1984) coping structure, Carver, Scheier, and Weintraub (1989) suggest the existence of three dispositional coping factors: problem-focused coping, emotion-focused coping, and disengagement. These researchers also contend that individuals may use more than one style simultaneously. *Problem-focused coping* involves efforts to modify a stressful event and includes activities such as defining the problem, generating alternative solutions, planning and acting to solve the problem, and suppressing competing activities. *Emotion-focused coping* deals with the way emotions are regulated in reaction to a stressor through, for example, seeking of instrumental social support, and venting emotions. *Disengagement* includes denial, blaming, mentally and behaviourally withdrawing from the situation, and thus, entails an avoidance of the stressful situation.

In general, active coping strategies, whether problem-focused or emotion-focused, are thought to be adaptive ways of dealing with stressful events, compared with

disengagement (an avoidant coping strategy). Disengagement appears to be a psychological risk factor or marker for adverse responses to stressful life events (Holahan & Moos, 1987). For example, individuals who use problem-focused coping tend to report lower levels of distress, regardless of the amount of job demands and work support they experience (Parkes, 1990). Problem-focused coping was also shown to moderate the relationship between chronic work stressors (i.e., long term stressors people experience on a daily basis) and anxiety and depression (Greenglass & Burke, 1991). Conversely, disengagement can be considered a maladaptive coping strategy when individuals deliberately refrain from approaching the situation. For example, coping behaviours that involve denying or avoiding the problem have typically been linked with higher self-reported psychological distress (e.g., Violanti, 1992).

The Impact of Personality on the Stress-Coping Response

The Five-Factor Model of personality, comprised of the traits of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness, is currently the dominant model in studies of personality by organizational psychologists. McCrae and Costa (1987) have provided the following descriptions of the five factors:

\*Neuroticism\* is characterized by a tendency to experience negative affect, such as anxiety, depression or sadness, hostility, and self-consciousness, as well as a tendency to be impulsive. \*Extraversion\* is marked by a tendency to experience positive emotions and to be warm, gregarious, fun-loving, and assertive. \*Openness to experience\* is characterized by the presence of curiosity, imagination, creativity, originality, aesthetic sensitivity, and flexibility. \*Agreeableness\* reflects a tendency to be good-natured, acquiescent, courteous, helpful, and trusting. \*Conscientiousness\* has been characterized by a tendency to be careful, reliable, hard-working, well-organized, and purposeful.

Research examining the relationship between personality and ways of coping with stressful life events has been fruitful in the past decade (e.g., Bolger & Zuckerman, 1995; Sandal et al., 1999; Vollrath & Torgersen, 2000), and generally shows that one's personality is strongly related to one's preferred coping strategy. This makes sense as scholars suggest that commonly studied coping strategies reflect broader and more basic dispositional tendencies within the individual (Watson, David, & Suls, 1999). More specifically, researchers contend that neuroticism and extraversion are crucially important in influencing both the coping strategy one chooses and the level of distress one experiences. Effectively, research has demonstrated that individuals who are high on neuroticism tend to rely on passive, maladaptive forms of coping such as escapeavoidance, wishful thinking, and self-blame, and do not tend to rely on problem-focused coping strategies (Endler & Parker, 1990; Hooker et al., 1994). On the other hand, extraverted individuals are generally more likely to use adaptive forms of coping, such as positive reinterpretation and growth and social support seeking, and less likely to use maladaptive forms of coping (Hooker et al., 1994). Said differently, neuroticism is generally negatively related to the use of problem-focused coping, and positively related to disengagement coping strategies, whereas extraversion is positively related to emotionfocused coping strategies, and negatively related to disengagement coping strategies.

Studies examining the relationship between the remaining personality traits of the FFM (i.e., openness, agreeableness, and conscientiousness) and coping strategies have been scarce. In fact, in my review of the literature, few studies have assessed the influence of all the Big Five personality traits on individuals' coping responses. Hooker and colleagues (1994) are, as far as I am aware, the only group of researchers that examined the relationships between the five factors of the FFM and coping mechanisms.

They assessed a sample of spouse caregivers living in the same household with patients who had a confirmed diagnosis of Alzheimer's disease or a related dementia. The average age of their participants was 68.7 years. Using the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992) and the Ways of Coping Checklist (WCCL-R; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985), Hooker and colleagues looked at the effects of openness, agreeableness, and conscientiousness on the coping responses of the spouses, in addition to examining the effects of extraversion and neuroticism. Their findings showed that agreeableness was positively related to emotion-focused coping and negatively related to disengagement (a maladaptive form of coping), while conscientiousness was positively related to problem-focused coping and negatively related to disengagement. Surprisingly, Hooker and colleagues found that openness was unrelated to coping; however, they argued that this may be due to range restriction, since administration of the survey package was done at the participants' home, and that people who are willing to let a stranger come into their home and interview them about sensitive issues dealing with caregiving may be more "open" than a random sample of volunteers. Their study also revealed that neuroticism and extraversion were the only statistically significant predictors of coping strategies when all personality traits were considered simultaneously. Therefore, Hooker and colleagues' study failed to find support for the idea that agreeableness, openness, and conscientiousness uniquely predicted coping mechanisms. Yet, their study revealed that further research investigating the link between coping strategies and personality traits among other populations may yield significant findings since they found significant zero-order correlations between these personality traits and coping strategies.

The following three hypotheses were drawn with the goal of replicating Hooker and colleagues' (1994) results in a sample of working individuals. Because there are few previous studies examining the link between coping and agreeableness, conscientiousness, and openness to experience, the relationship between these personality traits and coping was examined in an exploratory manner. It is therefore hypothesized that:

Hypothesis 1: Problem-focused coping will be negatively related to neuroticism, and positively related to conscientiousness and openness to experience.

Hypothesis 2: Emotion-focused coping will be positively related to extraversion, openness and agreeableness.

Hypothesis 2 was based on the following findings: In their sample of caregivers, Hooker and colleagues (1994) found significant positive relationships between emotion-focused coping and extraversion and also between emotion-focused coping and agreeableness. As for openness to experience, I hypothesized it would also be positively linked with emotion-focused coping since open individuals have been shown to cope via emotional expression (O'Brien & DeLongis, 1996).

Hypothesis 3. Disengagement will be positively related to neuroticism, and negatively related to extraversion, agreeableness, openness and conscientiousness.

Organizational Conflict and Conflict Management Styles

Organizational conflicts typically emerge between co-workers or between individuals and the organization that employs them for reasons such as differing attitudes, values, skills, goals, and behaviours (Rahim, 2002). Blake and Mouton (1964) pioneered the development of an instrument measuring interpersonal conflict management styles. Their managerial grid and their proposed styles of managing conflicts laid ground for

Rahim and Bonoma's (1979) taxonomy of conflict management styles, which was used in the present study. This classification uses two continua of concern for self and concern for others; the intersection of these continua defines five styles of handling interpersonal conflicts: dominating, integrating, compromising, avoiding, and obliging. Essentially, dominating implies imposing one's view at the expense of other individuals, and comprises high concern for self and low concern for others. Integrating seeks to use a problem-solving strategy to confront differences directly, thus promoting high concern for both self and others. In the compromising approach, conflicting parties work together to find a middle ground solution. This approach is intermediate in concern for self and others. When using the avoiding style, individuals or parties withdraw from the conflict situation, implying a low concern for self and others. Lastly, when obliging, individuals put their own concerns aside to satisfy the concerns of the other party, designating a low concern for self and a high concern for others.

The aforementioned taxonomy of conflict styles paved the road for the development of the Rahim Organizational Conflict Inventory (ROCI; Rahim 1983), which is a self-report measure assessing individuals' use of conflict management strategies when in conflict with a supervisor. Although support for the five dimensions of the ROCI was found in a review examining samples of managers (see van de Vliert & Kabanoff, 1990), Rahim's factor structure failed to be replicated in a sample of college students. Indeed, using factor analysis, a group of researchers has rather found support for a four-factor model of interpersonal conflict management (Hammock, Richardson, Pilkington, & Utley, 1990). Their study contended that among a group of college students, integrating and compromising were undifferentiated components and thus, these two factors were collapsed to create a single factor labelled *cooperation*.

## The Impact of Personality on Conflict Management Styles

It is well established that conflict management strategies are generally linked to stable, dispositional variables such as personality traits. In two independent studies, Antonioni (1998) and Moberg (2001) found support for the fact that people's conflict management in the workplace could be predicted by merely knowing their personality characteristics. In a sample of managers, Antonioni and Moberg both found support for the following findings: Conscientiousness was negatively related to individuals' use of the avoiding style of handling interpersonal conflict, while being positively related to the use of the integrating style. They also found that extraversion was positively linked to the use of the integrating style, while agreeableness was negatively linked to the use of the dominating style of handling interpersonal conflict at work. In addition to the aforementioned findings, Antonioni found that the avoiding and the integrating styles were positively related to agreeableness, while the dominating style was negatively related to neuroticism. Moberg, who examined managers and supervisors in organizational settings, found that the avoiding style was positively linked to neuroticism and negatively linked to extraversion, whereas the integrating style was negatively related to neuroticism and positively related to openness. Moberg also found support for a positive relationship between openness, agreeableness, and the compromising style, as well as a positive relationship between the obliging style and neuroticism.

Taken together, the findings from Antonioni's (1998) and Moberg's study (2001) suggest that all five personality traits predict the use of one or more conflict management styles. Interestingly, both researchers found support for significant positive relationships between the integrating style and extraversion, as well as between the integrating style and conscientiousness among a sample of managers. They also found that

conscientiousness was negatively related to the avoiding style, while agreeableness was negatively related to a tendency to dominate. Consequently, it could be hypothesized that extraversion, conscientiousness, and agreeableness will show similar patterns of relationships with conflict management styles in the present study. With regards to openness to experience and neuroticism, Antonioni's and Moberg's respective studies revealed different findings. A possible explanation for these discrepancies may be that they used different measures to assess conflict management styles. While Antonioni used the ROCI-II, Moberg used the Organizational Communication and Conflict Instrument (OCCI; Putnam & Wilson, 1982). Hence, comparisons between the two studies were made through converting the OCCI scales into ROCI-II ones. This was done by collapsing two scales of the ROCI into one, since the OCCI is a four-factor measure and the ROCI-II is a five-factor one. Specifically, the OCCI comprises the following components: nonconfrontation, confrontation, control, and compromise. According to the conceptual definition of these scales, nonconfrontation was considered similar to avoiding, confrontation to integrating, control to dominating, and compromise was a mix between compromising and obliging. Although this made comparisons between Antonioni's and Moberg's results possible, it provided room for error of interpretation since the two measures are quite different. Therefore, conclusions about the prediction of conflict management styles from openness and neuroticism were less straightforward. However, since I am using the ROCI-II in the current study (like Antonioni did), the following hypotheses were drafted after Antonioni's results in the manager sample. The ROCI-II was chosen because it is a short measure (i.e., 28 items) that has been associated with a comprehensive model for diagnosing organizational conflict, that is one that links conflict styles to other important organizational variables, such as organizational

effectiveness (Weider-Hatfield, 1988). Therefore, in a sample of working individuals, it is hypothesized that:

Hypothesis 4. The integrating and compromising styles of handling interpersonal conflict will be positively related to extraversion, agreeableness, and conscientiousness.

Hypothesis 5. The avoiding style of handling interpersonal conflict will be positively related to agreeableness and negatively related to conscientiousness. Hypothesis 6. The dominating style of handling interpersonal conflict will be negatively related to agreeableness and neuroticism.

Although Antonioni (1998) failed to find a relationship between personality traits and the use of the obliging style among a sample of managers, he found support for the prediction of this style of handling interpersonal conflict among a sample of students.

Namely, he found that agreeableness and neuroticism were both positively related to obliging. Since Moberg (2001) found similar results in a sample of managers, the following hypothesis was drawn on the basis of their combined findings.

Hypothesis 7. The obliging style of handling interpersonal conflict will be positively related to agreeableness and neuroticism.

The Impact of Stress and Coping on Conflict Management Styles

The existence of a relationship between coping mechanisms and conflict

management has been reported in various health-related studies. For example, in a

experiment examining the relationship between cynicism, social support, and

cardiovascular reactivity, Lepore (1995) found that social support (a coping response)

was reasonably effective in reducing some of the ill effects of interpersonal conflict,

providing support for the idea that effective coping strategies are associated with effective

conflict management styles. However, little research attention has been devoted to demonstrating the existence of a relationship between conflict management styles and coping strategies in organizational settings (De Dreu, Van Dierendonck, & Dijkstra, 2004). Nonetheless, the failure to manage conflict effectively may carry long-term costs for organizations. In fact, considerable evidence points to the detrimental effects of unmanaged organizational disputes (McKenzie, 2002). For example, organizational conflict may have harmful consequences on employee morale (Lippitt, 1982), counterproductive behaviours (Ayoko, Callan, & Hartel, 2003), turnover intentions and organizational commitment (Schwepker, 1999).

The following hypotheses pertaining to the relationship between coping strategies and conflict management styles are theory-based and, thus, were drawn by extrapolation. Individuals who tend to use problem-focused coping typically engage in activities such as planning and acting to solve the problem (Lazarus & Folkman, 1984). These are activities similar to those related to the integrating style of handling interpersonal conflict, whereby individuals seek to use a problem-solving strategy to confront differences directly.

Conversely, individuals who tend to cope by disengaging from stressful situations may be less likely to tackle the problem directly, preferring to avoid it altogether. It is, therefore, hypothesized that:

Hypothesis 8. The integrating style of handling interpersonal conflict will be positively related to problem-focused coping and negatively related to disengagement.

Individuals typically engage in seeking social support and venting emotions when using emotion-focused coping (Carver et al., 1989). In terms of conflict management style, when individuals use the obliging style of handling interpersonal conflict, they put their

own concerns aside to satisfy the concerns of the other party. In other words, an obliging person attempts to play down the differences and emphasizes commonalities to satisfy the concerns of the other party (Rahim & Bonoma, 1979), There is a "social" component in both emotion-focused coping and the obliging style of handling interpersonal conflict, in that individuals who use these strategies rely on others to solve the problem or gauge their reactions to adapt them to the reactions of the other party. Therefore, individuals who tend to use emotion-focused coping strategies such as seeking emotional support from others, and who prefer to find comfort in other people, may also be suggested to use conflict styles whereby others' needs and concerns are viewed as vital to the resolution of the conflict. Individuals who use the obliging style of handling interpersonal conflict may also be less likely to use problem-focused coping strategies such as planning and problem-solving because they prefer finding comfort in other people. Therefore, it is hypothesized that:

Hypothesis 9. The obliging style of handling interpersonal conflict will be positively related to emotion-focused coping and negatively related to problem-focused coping.

Dominating implies imposing one's view at the expense of other individuals. Individuals who tend to dominate when in a conflict situation will use their power and influence to get their ideas across (Rahim & Bonoma, 1979), suggesting that they will approach stressful situations in a similar fashion. Specifically, individuals who use the dominating style may be inclined to cope with stress on their own, without the support of others. Therefore, it is hypothesized that:

Hypothesis 10. The dominating style of handling interpersonal conflict will be negatively related to emotion-focused coping.

Individuals who use the avoiding style of handling interpersonal conflict withdraw from the conflict situation. This is similar to the disengagement way of coping with stress in that these two strategies imply that one gets away from the situation by behaviourally escaping them. Thus, when using disengagement or avoiding, individuals do not face the issue at hand by attempting to solve it, they rather hide from it. It is, consequently, hypothesized that:

Hypothesis 11. The avoiding style of handling interpersonal conflict will be positively related to disengagement and negatively related to problem-focused coping.

Compromising in a conflict situation implies that conflicting parties work together to find a middle ground solution. Individuals who compromise try to find a solution that is satisfying to both parties, in a give and take manner (Rahim & Bonoma, 1979).

Compromising implies a problem-solving approach to the resolution of a conflict, and therefore, it is hypothesized that:

Hypothesis 12. The compromising style of handling interpersonal conflict will be positively related to problem-focused coping and negatively related to disengagement.

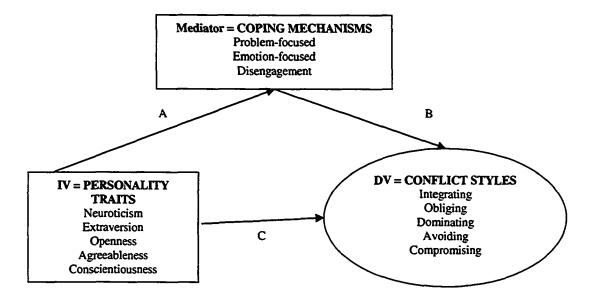
Assessing the Mediating Effects of Coping Mechanisms on

Personality Dimensions and Conflict Styles

Hypothesis 13. Coping mechanisms, including problem-focused, emotion-focused, and disengagement will mediate the effects of personality in predicting conflict management styles.

The hypothesized model linking personality traits, coping mechanisms, and conflict management styles is portrayed in Figure 1.

Figure 1. The Mediating Effects of Coping Mechanisms on the Relationship between Personality Traits and Conflict Management Styles<sup>1</sup>.



The following example illustrates the functioning of this model: Conscientious individuals are typically reliable, hard-working, well-organized, and purposeful individuals (McCrae & Costa, 1987). When examining the direct relationship between personality traits and conflict management styles, it has been demonstrated that conscientious individuals will be more likely to use the integrating style of handling interpersonal conflict at work (e.g., Antonioni, 1998). I am hypothesizing that what makes conscientious individuals handle interpersonal conflict in such a cooperative manner is the way they cope with stress. Indeed, because of their typical characteristics,

<sup>&</sup>lt;sup>1</sup> In this model, stress is viewed as an external, yet ubiquitous, variable in that it influences the appraisal of the situation and impacts the coping process. Stress can be suggested to be an antecedent as well as a consequence of organizational conflict, and it ultimately plays a role on how individuals cope with the situation. Although stress is an important contributor to the model shown in Figure 1 since it can be related to the three variables of interest, a comprehensive assessment of its influence on the model is beyond the scope of this research.

conscientious individuals may be more tempted to tackle stressful situations up front, by directly trying to solve the problem. In fact, conscientiousness has been linked to the use of problem-focused coping strategies (Hooker et al., 1994). Conscientiousness people will first appraise a conflict situation as being stressful, they will then cope with this situation by using problem-focused coping strategies (e.g., planning), and this will bring them to handle the conflict by integrating. In other words, the effect personality has on conflict styles is done through coping mechanisms. Specifically, problem-focused coping is the vehicle that brings conscientious individuals to handle interpersonal conflicts in an integrating manner. Coping mechanisms are therefore hypothesized to act as the connector between personality traits and conflict management styles. Consequently, problem-focused coping is hypothesized to mediate the relationship between conscientiousness and the integrating style, because it impacts the relationship between this personality trait and that conflict management style. Indeed, according to Baron and Kenny (1986), a variable may be considered a mediator to the extent to which it carries the influence of a given independent variable (IV) to a given dependent variable (DV). Said differently, personality traits impact conflict management styles through their influence on coping mechanisms.

The rationale of hypothesis 13 can be explained through *proximal* and *distal* influences. In a study assessing conflict in the context of romantic relationships, Corcoran and Mallinckrodt (2000) demonstrated the existence of a model linking conflict resolution styles to self-efficacy, adult attachment, and perspective taking. More specifically, using Rahim's (1983) taxonomy of conflict management styles, Corcoran and Mallinckrodt proposed that social competencies (i.e., social self-efficacy and perspective taking) acted as mediators in the relationship between attachment styles (secure versus non-secure) and

conflict resolution styles, suggesting that effective conflict management styles depended on a particular configuration of beliefs about self and others that are defining characteristics of a secure adult attachment style. The results from this study suggest that conflict resolution styles (i.e., the outcome) are predicted by *distal* mechanisms that have their roots in childhood (i.e., attachment styles); however this relationship is explained in part by *proximal* factors, such as social competencies. Proximal factors are typically linked with current life events. For example, retirement or the loss of a spouse, as well as social support are considered proximal factors (Martin & Martin, 2002). Similarly, in the present case, I am arguing that personality traits are *distal* influences, and coping mechanisms are *proximal* influences on conflict and its management (i.e., the outcome).

Personality traits are suggested to be *distal* variables in the current model because, according to McCrae and Costa (1999), the Big Five personality factors constitute basic tendencies that have a biological basis. In other words, the behavioural differences linked to the Big Five are represented within the body in terms of genes, brain structure, and so on. The argument for the influence of genes on personality traits was anchored in Freud's (1952) as well as in Murray's personality theory (1938). More recently, Eysenck (1967) linked extraversion, neuroticism, and psychoticism to individual differences in nervous system structures and functioning. In another study, the genetic and environmental etiology of the FFM as measured by the revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) was assessed using 123 pairs of identical twins and 127 pairs of fraternal twins (see Jang, Livesley, & Vernon, 1996). This group of scholars revealed that the broad genetic influence on the five dimensions of neuroticism, extraversion, openness, agreeableness, and conscientiousness was estimated at 41%, 53%, 61%, 41%, and 44%, respectively. These findings provide further support for the existence of a genetic basis to

personality traits. Therefore, personality traits can be argued to be distal antecedents in the model linking them to coping mechanisms, and conflict management styles.

In this same model, the coping process consists of a proximal influence because the appraisal of a stressful event, as well as the coping behaviours associated with this appraisal are hypothesized to influence the health and wellbeing of individuals, suggesting that coping strategies have a direct and present impact on individuals' functioning (Martin & Martin, 2002). Specifically, according to Lazarus and Folkman (1984), coping as a process involves some form of thought, action or feeling that is used, modified or eliminated to deal with a current event that elicits some form of psychological stress. This is why, in the current study, coping mechanisms are suggested to mediate the relationship between currently experienced stressful events (i.e., conflict situations) and the related outcomes (i.e., conflict management styles). For instance, an individual will typically appraise a conflict situation as a stressful event (McKenzie, 2002), and this appraisal will elicit a coping response from this individual (Lazarus & Folkman, 1984). That response is determined, in part, by the individual's personality (e.g., Hooker et al., 1994). Consequently, this suggests that as stressful events, conflicts – and their subsequent management- depend upon current appraisal of the situation and the following coping mechanisms, which are characteristics defined in part by personality.

In the light of the aforementioned findings, it would be reasonable to believe that conflict management styles are not directly influenced by FFM personality traits as demonstrated by Antonioni (1998) and Moberg (2001), but are in fact influenced by the indirect effects coping mechanisms have on the relationship between personality traits and conflict management styles. In sum, in the model represented by Figure 1, personality traits would play the role of the distal antecedents, since they are considered to be at the

origin of what defines an individual; whereas coping mechanisms would be the proximal influences having an impact on organizational conflict, and the consequent conflict management strategies.

#### Method

#### **Participants**

Because I intended to study conflict in a workplace context, I chose to study students and adults who had a minimum of two years of work experience. I considered that 2 years of work experience was a long enough period of time to have taken part in an interpersonal conflict at least once, either with a co-worker, superior, or subordinate. This study received ethics approval from the Research Ethics Board (REB; see Appendix A). Participants signed an informed consent form, which explained the purpose and procedure of the study, and that their participation was voluntary and they could terminate participation at any time (see Appendix B). The research was described as a survey study of coping, personality, and conflict. Recruitment of participants was done in two ways: (1) directly through the students in various MBA classes, Psychology undergraduate classes, as well as in Executive and Professional Development classes; and (2) by offering students who did not possess two years of work experience to ask their parents or friends to complete the survey package. Whether they took part in the study themselves, or had a family member or friend complete a survey package, Psychology undergraduate participants received one bonus point that could be applied to their courses. Other participants (i.e., MBA and Executive and Professional Development students, and participants recruited by the Psychology undergraduate students) had a chance of winning one of two cash prizes of \$250 each for their participation in the study.

From a total of 532 surveys distributed, 243 were returned (46% return rate).

Table 1 provides details on the demographics of the participants for which data was available. Although 20 participants did not meet the minimum required tenure of two years, their data was analyzed with the rest of the sample, because a one-way ANOVA showed that, aside from the emotion-focused factor of the coping measure, their scores on the other measures were not different from the scores of the other groups (see Appendix C for details).

#### Materials

The Demographic Interview (see Appendix D). This measure provided information about participants' gender, age, marital status, number of children, current life occupation, tenure, managerial level (if any), education level, ethnicity, and family income.

The Brief COPE (Carver, 1997). This questionnaire is an abbreviated version of the COPE-LB (Carver, Scheier, & Weintraub, 1989) which examines the general coping styles of an individual. The Brief COPE is a 28-item measure of the way people generally cope when under stress. The Brief COPE contains 14 scales and assesses topics such as positive reframing, planning, denial, self-distraction, religious coping, and behavioural disengagement. Items are rated using a four-point Likert scale that ranges from 1 = I usually don't do this at all to 4 = I usually do this a lot. Example of items include: "I've been blaming myself for things that happened" (i.e., self-blame), "I've been thinking hard about what steps to take" (i.e., planning), and "I've been trying to get advice or help from other people about what to do" (i.e., instrumental support). Carver (1997) reported internal consistency reliabilities from .50 to .90 for the 14 subscales. In order to help improve the reliability of the scales, and to obtain a factor structure similar to the one used by Carver

Table 1

Demographics of the Participants

Variables	Categories	N	%
Gender	0. Male	108	46
	1. Female	126	54
Age	1. < 25	30	13
(in years)	2. 25-34	85	36
	3. 35-44	28	12
	4. 45-54	70	30
	5. >54	21	9
Marital status	1. Married/Living with someone	139	59
	2. Widowed	1	.4
	3. Divorced	16	7
	4. Separated	5	2
	5. Never married	74	32
Job tenure	1. < 1	20	8
(in years)	2. 1 – 3 (inclusive)	34	14
	3. 3.1 – 5 (inclusive)	46	20
	4. 5.1 – 7 (inclusive)	36	15
	5. > 7	95	40

Table 1 (cont'd)

Variables	Categories	N	%
Education level	1. Did not finish high school	1	.4
	2. High school	29	12
	3. Trade school	19	8
	4. Some university training	47	20
	5. Bachelor's degree	88	37
	6. Master's degree	20	9
	7. Ph.D. degree	3	1
	8. Other (e.g., sales)	27	12
Family income	1. < \$30,000	38	16
(per year)	2. \$30,000 - \$50,000	53	23
	3. \$51,000 - \$100,000	96	41
	4. > \$100,000	44	19

and colleagues (1989), an exploratory factor analysis was performed and yielded a four-factor structure, although one of the factors (i.e., religious coping) was later dropped from further analyses because it was not part of the original factor structure established by Carver and colleagues (1989) on which hypothesises were based. The decision to use this measure notwithstanding its low internal consistency was made with the intention to reduce the completion time of the survey package. Indeed, in order to attract as many working individuals to this study as possible, care was taken to ensure that the survey package could be completed in a reasonable amount of time (i.e., 30–40 minutes). Using the short version of the COPE, instead of the longer 60-item version one was certainly helpful in this instance.

The NEO-FFI (Costa & McCrae, 1992). The Big Five personality dimensions were assessed using the short version of the NEO Personality Inventory, the NEO-FFI. This survey consists of 60 behavioural statements divided equally into five scales. Each factor is measured using 12 items. The NEO-FFI measures five domains of personality that correspond to the "Big Five" theory of personality. These domains, or major dimensions, are neuroticism (e.g., "I often feel inferior to others"), extraversion (e.g., "I like to have a lot of people around me"), openness to experience (e.g., "I am intrigued by the patterns I find in art and nature"), agreeableness (e.g., "I try to be courteous to everyone I meet"), and conscientiousness (e.g., "I keep my belongings clean and neat"). Participants respond using a five-point Likert-type scale, ranging from 1 = Strongly disagree to 5 = Strongly agree.

Cronbach's alpha for this study were .84 for the neuroticism scale, .78 for extraversion, .70 for openness, .75 for agreeableness, and .81 for conscientiousness.

The Rahim Organizational Conflict Inventory (ROCI-II; Rahim, 1983). This measure is comprised of 28 items and permits the assessment of the styles of handling

interpersonal conflicts. The five styles of handling interpersonal conflict are integrating (e.g., "I try to work with the other person for a proper understanding of a problem"), obliging (e.g., "I generally try to satisfy the needs of the other person"), dominating (e.g., "I use my influence to get my ideas accepted"), avoiding (e.g., "I usually avoid open discussion of my differences with the other person"), and compromising ("I try to find a middle course to resolve an impasse"). Respondents indicated on a five-point Likert scale the extent to which they engaged in each of the various conflict-handling behaviours (1 = Strongly disagree; 5 = Strongly agree). A higher score indicated greater use of a style of handling interpersonal conflict with a supervisor. The original measure only assessed conflict with a supervisor. In this study, however, the term supervisor was replaced by "other person" in order to also include co-workers and subordinates. Encompassing coworkers, supervisors, and subordinates ensured that individuals who did not generally engage in conflicts with their supervisor (because they did not work closely with them or simply because they got along well with them), could address conflicts they had with other individuals in their workplace. In their study, Rahim, Antonioni, and Psenicka (2001) found that Cronbach internal consistency reliability coefficients for the five subscales ranged between .76 and .85. However, in this study, an exploratory factor analysis yielded a four-factor structure (see analyses section for more details).

Organizational Conflict Situation Question (see Appendix E). In addition to completing the aforementioned self-report measures, participants were asked to describe in writing a conflict situation they had experienced at work with a colleague, subordinate, or superior. This open-ended question evaluated participants' conflict management styles through a situational interview-type question. Specifically, participants were asked to describe (1) the situation, (2) their thought process, (3) their behaviour (i.e., how they

reacted), and (4) the outcome/result of the conflict situation they had experienced. This measure was exploratory in nature, in that I planned to use it as an indicator of the latent endogenous construct *conflict style* in structural equation modeling (SEM), providing my data was suited for this type of analysis. This open-ended question was employed because it was considered as a less contaminated (by common self-report variance) measure than the conflict style scale and was valuable as a potential outcome.

In order to rate the answers to this question, a coding scheme was developed (see Appendix F). Two subject matter experts (SMEs) provided their input when developing and testing the coding scheme. The scheme assessed individuals' use of Rahim's (1983) five conflict styles (integrating, avoiding, dominating, obliging, and compromising) by rating on a four-point Likert-type scale (0 = did not mention this style to 5 = provided atleast 2 mentions of this style in the text) how much participants mentioned this style in their answers. These anchors were created with the intention to have variability in the responses. It was deemed reasonable to establish that participants who provided two clear mentions (see *Typical quotes* in Appendix F) of one style received the highest rating. The coding scheme also included an effectiveness rating, whereby participants' dominant conflict style (i.e., the style they mostly used) was evaluated for appropriateness. Indeed, according to Rahim (2002), each conflict style can be used in an appropriate or inappropriate manner. When used appropriately, a conflict style is said to be effective; when used inappropriately, it is deemed ineffective. The grid used in the current coding scheme replicated the one used in Rahim's study (2002). Participants' effectiveness in using a conflict management style was rated on a three-point Likert scale (1 = ineffective to 3 = highly effective). A preliminary analysis of the concurrent validity between the scores on the ROCI-II (Rahim, 1983) and the score on the open-ended question failed to

yield significant results. In other words, there was no concordance between participants' scores on the ROCI-II and their score on the situational question.

Although the open-ended question provided a wealth of information regarding participants' experience of conflict situations in the workplace, it may not have been suited for this study. Indeed, the situational question was modeled after a structured interview-type question in personnel selection. Specifically, this type of situational question is generally used as a guide throughout the interview process, and the interviewer typically tries to obtain the required answers by prompting the interviewee when necessary. Perhaps in the present instance the question was not straightforward enough and thus, participants did not entirely grasp what was required of them. In fact, by examining the answers to question 3 (i.e., "Please describe your behaviour"), I noticed that many participants answered by explaining their feelings and emotions when dealing with the conflict, (e.g., "I was angry"), whereas, I was looking for their behaviours (e.g., "I stop talking to the other person"). Moreover, inter-rater reliability between the investigator and the SMEs was low (r = .30) possibly explaining the reason for the lack of concurrent validity between the ROCI and the open-ended question. Consequently, the open-ended situational question was dropped from further analyses.

## Procedure

Participants were recruited directly or indirectly in various MBA, Executive and Professional Development and Psychology undergraduate classes. This was done with the agreement of the professor. Participants completed a survey package including measures of their personality, coping mechanisms, and conflict management styles, as well as a demographic information form. The order of the self-report measures (i.e., NEO-FFI, Brief COPE, and ROCI-II) was counterbalanced, such that there were six different

versions of the package. All participants were invited to fill in the survey package at a time of their convenience and to either return it in class to the main investigator the following week, or to drop it in a mailbox located in the Psychology Department. Detailed instructions on the purpose of the study and the participation process were provided orally by the investigator, and in writing on an instruction sheet (see Appendix G). The complete assessment took approximately 40 minutes.

Participation was voluntary; however, undergraduate students received one bonus point for taking part in the study, either directly or indirectly. In addition, each individual who completed a survey package or parts thereof had a chance to win one of two cash prizes of \$250. These draws were held on June 24, 2005.

## Preliminary analyses

Data Cleaning and Screening. An initial screening of the data for univariate and multivariate outliers, and violations of the assumptions on the residuals including non-linearity, non-normality, heteroskedasticity and independence was conducted using SPSS for Windows version 11.5. Two univariate outliers were detected, one on the *integrating* subscale of the ROCI-II and the other on the *denial* subscale of the Brief COPE. Six (five subscales of the Brief COPE, and one of the ROCI-II) of the initial 24 subscales (5 for the NEO-FFI, 5 for the ROCI-II, and 14 for the Brief COPE) were skewed, thus violating the assumption of normality for these subscales. This fact was, however, disregarded because regressions are quite robust to the violation of the normality assumption. After running the regressions, I also verified if the distributions of residuals had any outliers by looking at the maximum of Cook's distance. Seven multivariate outliers were found since their Cook's distance maximum was above 1. The data from these participants were therefore deleted from further analyses. Also, one participant completed only the situational

interview question, and failed to complete the surveys and the demographic information form. Therefore, this person's data was also deleted from further analyses. A missing value analysis in SPSS showed that data was missing at random and thus, missing data on the self-report measures were treated by using mean substitution.

Factor Structure of the Brief COPE. The Brief COPE (Carver, 1997) is a relatively new scale and has not been extensively validated. Therefore, Principal Component Analysis (PCA) and Exploratory Factor Analysis (EFA) tested whether the components fit the data collected in the current sample and replicated the original 14factor structure that was previously reported by its developer. Principal components extraction with varimax rotation was used prior to principal factors extraction to estimate number of factors, presence of outliers, absence of multicollinearity, and factorability of the correlation matrices. An initial estimation of the factor structure through PCA indicated that eight factors best fit the data (eigenvalues greater than one), explaining 63.56% of the variance. PCA was employed because the goal of the analysis was to replicate the component structures reported in the original studies in the current sample (Tabachnick & Fidell, 2001). Examination of the scree plot, however, suggested the presence of a four- or five-factor structure. Therefore, EFA using Principal Axis Factoring (PAF) was used to test both possibilities. Principal factor extraction with promax rotation was performed on 28 items from the Brief COPE for a sample of 235 individuals. The promax rotation was used because there is some degree of overlap between the subscales in the original work. Indeed, the factor correlation matrix revealed that the four factors were moderately correlated, with correlation coefficients varying between .03 to .42 (see Table 2). Although some factors were not highly correlated, the

Table 2

Factor Correlation Matrix for the Brief COPE

Factor	1	2	3	4
1	1.00	· · · · · · · · · · · · · · · · · · ·		<del></del>
2	.42	1.00		
3	.39	.20	1.00	
4	.21	.03	.09	1.00

decision was made to keep the oblique rotated structure since it provided a clearer factor structure. After extracting four and five factors, the former extraction resulted in the best fit of the data. Five items had ambiguous or unsatisfactorily low factor loadings and were eliminated, resulting in a 23-item four-factor measure that accounted for 44.31% of the total variance. The results from the four-factor structure of the Brief COPE showed a simple structure, since items that significantly loaded together on a factor did not cross-load on other factors. The criterion for inclusion in a factor was a loading of .32 or more, which represents a meaningful correlation (Tabachnick & Fidell, 2001).

The four factors, in order of percentage of variance, were labeled: *emotion-focused* (i.e., seeking emotional and instrumental support), *problem-focused coping* (i.e., action, planning, and positive reframing), *disengagement* (i.e., substance use, denial, humor, behavioural disengagement), and *religion* (i.e., praying and meditating). However, this last factor was not included in further analyses because it was not part of the original hypotheses. Moreover, it was deemed not usable because it contained only 2 items and it later violated the assumption of linearity with all the other variables of interest. This terminology was based on the nature of the items that loaded together on a factor. Table 3 shows the items that loaded on each factor, along with their factor loadings and internal reliabilities.

Factor Structure of the ROCI-II. In terms of its factor structure, the ROCI-II (Rahim, 1983) has received equivocal support, with some researchers arguing for a five-factor structure (e.g., van de Vliert & Kabanoff, 1990), while others defend a four-factor structure (e.g., Hammock et al., 1990). For this reason, PCA and EFA were used to test whether the components fit the data and replicate the original five-factor structure reported by Rahim. An approach similar to the one used for the validation of the Brief

Table 3

Questionnaire items and factor loadings of the Brief COPE

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
Emotion- focused	5.63	20.01	I've been getting emotional	.70
$(\alpha = .83)$			support from others.	
			I've been getting comfort and	.95
			understanding from someone.	
			I've been trying to get advice or	.73
			help from other people about	
			what to do.	
			I've been getting help and advice	.74
			from other people.	
			I've been expressing my negative	.48
			feelings.	
Problem- focused	2.79	9.95	I've been concentrating my	.53
$(\alpha = .75)$			efforts on doing something about	
			the situation I'm in.	
			I've been taking action to try to	.57
			make the situation better.	
			I've been trying to come up with	.68
			a strategy about what to do.	

Table 3 (cont'd)

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
			I've been thinking hard about	.66
			what steps to take.	
			I've been accepting the reality of	.45
			the fact that it has happened.	
			I've been trying to see it in a	.48
			different light, to make it seem	
			more positive.	
			I've been looking for something	.52
			good in what is happening.	
Disengagement	2.13	7.59	I've been saying to myself "this	.49
$(\alpha = .73)$			isn't real".	
			I've been refusing to believe that	.48
			it has happened.	
			I've been using alcohol and other	.46
			drugs to make myself feel better.	
			I've been using alcohol or other	.50
			drugs to help me get through it.	
			I've been making jokes about it.	.45
			I've been making fun of the	.47
			situation.	

Table 3 (cont'd)

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
			I've been giving up trying to deal	.53
			with it.	
			I've been giving up the attempt to	.56
			cope.	
			I've been doing something to	.46
			think about it less, such as going	
			to movies, watching TV, reading,	
			daydreaming, sleeping, or	
			shopping.	
Religion	1.87	6.67	I've been trying to find comfort in	.78
			my religion or spiritual beliefs.	
$(\alpha = .87)$			I've been praying or meditating.	.80

Note. n = 235. Principal factor extraction with promax rotation.

COPE was employed. Therefore, principal components extraction with varimax rotation was used prior to principal factors extraction to estimate number of factors, presence of outliers, absence of multicollinearity, and factorability of the correlation matrices. The initial PCA indicated the presence of a seven-factor structure (eigenvalues greater than one), explaining 60.63% of the variance. Examination of the scree plot, however, suggested the presence of a four-factor structure. Therefore, four factors were extracted through PAF. More specifically, PAF with promax rotation was performed on the 28 items of the ROCI-II for a sample of 226 individuals. The promax rotation was used because the items were correlated (see Table 4). The results from the four-factor structure of the ROCI-II showed a simple structure, with all items having large loadings on one factor and small loadings on other factors (see Table 5). No items were deleted. Thus, the resulting scale comprised 28 items, and the four-factor measure accounted for 48.26% of the total variance. The criterion for inclusion in a factor was a loading of .32or more for the same reason as mentioned above.

The resulting factor structure was similar to the one found by Hammock and colleagues (1990). The compromising and integrating factors were undifferentiated and thus, the items from their respective scales all loaded onto the same factor, and were therefore collapsed to create one broader factor labelled *cooperation*. The other three factors (avoiding, obliging, and dominating) contained the same items as the original scale. Table 5 shows the items that loaded on each factor, along with their factor loadings and internal reliabilities.

Table 4

Factor Correlation Matrix for the ROCI-II

Factor	1	2	3	4
1	1.00		<del></del> -	
2	05	1.00		
3	.23	.46	1.00	
4	11	09	.01	1.00

Table 5

Questionnaire items and factor loadings of the ROCI-II

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
Cooperation	5.55	19.12	I try to investigate an issue to find	.64
$(\alpha = .87)$			a solution acceptable to both of us.	
			I try to integrate my ideas with	.67
			those of the other person to come	
			up with a decision jointly.	
			I try to work with the other person	.75
			to find solutions to a problem	
			which satisfy our expectations.	
			I try to find a middle course to	.51
			resolve an impasse.	
			I exchange accurate information	.69
			with the other person to solve the	
			problem together.	
			I usually propose a middle ground	.59
			for breaking deadlocks.	
			I negotiate with the other person	.59
			so that a compromise can be	
			reached.	

Table 5 (cont'd)

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
			I use "give and take" so that a	.53
			compromise can be made.	
			I try to bring all our concerns out	.53
			in the open so that the issues can	
			be resolved in the best possible	
			way.	
			I collaborate with the other person	.77
			to come up with decisions	
			acceptable to us.	
			I try to work with the other person	.69
			for a proper understanding of a	
			problem.	
Avoiding	4.28	14.74	I attempt to avoid being "put on	.59
$(\alpha = .74)$			the spot" and try to keep the	
			conflict to myself.	
			I usually avoid open discussion of	.60
			my differences with the other	
			person.	

Table 5 (cont'd)

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
<del></del>			I try to stay away from	.81
			disagreement with the other	
			person.	
			I avoid an encounter with the other	.76
			person.	
			I try to keep my disagreement with	.61
			the other person to myself in order	
			to avoid hard feelings.	
			I try to avoid unpleasant	.54
			exchanges with the other person.	
Obliging	2.60	8.97	I generally try to satisfy the needs	.59
$(\alpha = .74)$			of the other person	
			I give in to the wishes of the other	.58
			person.	
			I usually accommodate the wishes	.69
			of the other person.	
			I usually allow concessions to the	.54
			other person.	
			I often go along with the	.46
			suggestions of the other person.	

Table 5 (cont'd)

Subscale	Eigenvalue	% Variance explained	Item	Factor loading
			I try to satisfy the expectations of	.55
			the other person.	
Dominating	1.57	5.43	I use my influence to get my ideas	.61
$(\alpha = .82)$			accepted.	
			I use my authority to make a	.71
			decision in my favour.	
			I use my expertise to make a	.60
			decision in my favour.	
			I am generally firm in pursuing	.44
			my side of the issue.	
			I sometimes use my power to win	.72
			a competitive situation.	

Note. n = 226. Principal factor extraction with promax rotation.

Factor Structure of the NEO-FFI. To explore whether the Big Five personality items of the NEO-FFI loaded onto their original factors by statistical methods, another PCA was performed. The original solution generated 18 eigenvalues greater than 1, explaining 65.96% of the total Variance. However, the scree plot indicated an emergence of five factors (see Figure 2). Thus, PAF with varimax rotation was performed on the 60 items of the NEO-FFI for a sample of 222 individuals. Varimax rotation was employed because the five factors showed to be uncorrelated (correlation coefficients varying between .003 and .36), most of them having a value below .2. A five-factor solution was forced, which was consistent with the original theory (see Table 6). Most items loaded onto their respective components, except two cross-loading items (see items 4, 52), three items with low loadings (see items 3, 15, 57), two items with low loadings on their own scale and high loadings on another scale (see items 34, 47), and four items with low loadings on all the scales (see items 8, 12, 18, 38). Specifically, openness and extraversion appeared to be the most problematic factors, with four of their respective items not loading adequately on the expected factors, or having low loadings on the expected scale. In fact, in a British study, Egan, Deary, and Austin (2000) found that although British norms corresponded favourably with American ones, the factor structure of the NEO-FFI was less satisfactory. Neuroticism, agreeableness, and conscientiousness appeared reliably, while many of the items of the openness and extraversion scales did not load adequately on the expected factors. This suggests that sample adequacy was not a reason to explain my failure to replicate the original simple structure of the NEO-FFI. Despite these findings, a decision was made to leave all items in the final solutions, because the internal consistency of the five scales was acceptable to good ( $\alpha = .70$  to .84).

Figure 2. Scree Plot Indicating the Presence of a Five-Structure for the NEO-FFI.

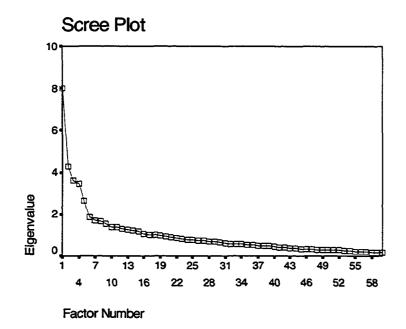


Table 6

Rotated Component Loadings of the NEO-FFI Items

N C E A O   -0.45   0.13   -0.10   0.07   0.04   6 - I often feel inferior to others.   0.49   -0.04   -0.16   0.09   -0.01   11 - When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.   0.49   0.01   -0.18   0.01   0.02   0.01   0.05   0.01   0.03   0.01   0.05   0.05   0.01   0.03   0.01   0.05   0.05   0.07   0.12   0.06   0.06   0.08   0.07   0.02   0.01   0.03   0.01   0.05   0.01   0.05   0.07   0.02   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.01   0.05   0.05   0.01   0.05   0	Components	Factor				
6 - I often feel inferior to others.   0.49   -0.04   -0.16   0.09   -0.01     11 - When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.   16 - I rarely feel lonely or blue. (R)   -0.61   -0.11   -0.14   -0.01   0.10     21 - I often feel tense and jittery.   0.60   -0.06   -0.12   -0.23   0.11     26 - Sometimes I feel completely   0.55   -0.19   -0.10   0.03   0.01     worthless.   31 - I rarely feel fearful or anxious. (R)   -0.47   0.05   -0.07   -0.12   0.06     36 - I often get angry at the way people treat me.   0.51   -0.08   -0.07   -0.28   -0.01     46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.06   -0.06   -0.08     51 - I often feel helpless and want someone else to solve my problems.   0.54   -0.35   -0.05   -0.07   -0.04     46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.02   -0.06   -0.04     51 - I often feel helpless and want someone else to solve my problems.   0.50   -0.15   -0.03   -0.16   -0.04     52 - I keep my belongings clean and neat.   -0.07   0.49   0.00   0.08   -0.22     10 - I'm pretty good about pacing myself so as to get things done on time.   -0.05   0.55   -0.05   0.04   0.03     15 - I am not a very methodical person. (R)   0.01   -0.25   -0.14   0.08   0.04     20 - I try to perform all the tasks assigned to me conscientiously.   -0.17   0.17   0.17     25 - I have a clear set of goals and work toward them in an orderly fashion.   -0.04   0.05   0.01   0.22   -0.03   0.02     30 - I waste a lot of time before settling down to work. (R)   -0.14   -0.50   -0.11   0.22   -0.10     35 - I work hard to accomplish my goals.   -0.07   0.06   0.08   0.01   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.11   0.05   0.15   0.05   0.05   0.05   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00		N	С	E	A	0
11 - When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.   16 - I rarely feel lonely or blue. (R)	1 - I am not a worrier. (R)	-0.45	0.13	-0.10	0.07	0.04
Sometimes I feel like I'm going to pieces.   16 - I rarely feel lonely or blue. (R)   -0.61   -0.11   -0.14   -0.01   0.10   21 - I often feel tense and jittery.   0.60   -0.06   -0.12   -0.23   0.11   26 - Sometimes I feel completely   0.55   -0.19   -0.10   0.03   0.01   worthless.   31 - I rarely feel fearful or anxious. (R)   -0.47   0.05   -0.07   -0.12   0.06   36 - I often get angry at the way people treat me.   41 - Too often, when things go wrong, I get discouraged and feel like giving up.   46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.22   -0.06   0.08   -0.12   desired in the self-graph of	6 - I often feel inferior to others.	0.49	-0.04	-0.16	0.09	-0.01
16 - I rarely feel lonely or blue. (R)	11 - When I'm under a great deal of stress,	0.49	0.01	-0.18	0.01	0.01
21 - I often feel tense and jittery.   0.60   -0.06   -0.12   -0.23   0.11     26 - Sometimes I feel completely worthless.   0.55   -0.19   -0.10   0.03   0.01     worthless.   31 - I rarely feel fearful or anxious. (R)   -0.47   0.05   -0.07   -0.12   0.06     36 - I often get angry at the way people treat me.   0.51   -0.08   -0.07   -0.28   -0.01     41 - Too often, when things go wrong, I get discouraged and feel like giving up.   0.49   -0.19   -0.16   0.06   -0.08     31 - I roften feel helpless and want someone else to solve my problems.   0.54   -0.35   0.04   0.08   -0.12     35 - I often feel helpless and want someone else to solve my problems.   0.50   -0.15   -0.03   -0.16   -0.04     wanted to hide.   5 - I keep my belongings clean and neat.   -0.07   0.49   0.00   0.08   -0.22     10 - I'm pretty good about pacing myself so as to get things done on time.   15 - I am not a very methodical person. (R)   0.01   -0.25   -0.14   0.08   0.04     20 - I try to perform all the tasks assigned to me conscientiously.   25 - I have a clear set of goals and work toward them in an orderly fashion.   30 - I waste a lot of time before settling down to work. (R)   35 - I work hard to accomplish my goals.   0.07   0.61   0.24   -0.02   0.11     40 - When I make a commitment, I can always be counted on to follow through.   45 - Sometimes I'm not as dependable or reliable as I should be. (R)   50 - I am a productive person who always gets the job done.   55 - I never seem to be able to get   -0.23   -0.54   0.03   -0.07   -0.06   organized. (R)   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   organized. (R)   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   organized. (R)   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   organized. (R)   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   organized. (R)   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   -0.07   -	sometimes I feel like I'm going to pieces.					
26 - Sometimes I feel completely worthless.   31 - I rarely feel fearful or anxious. (R)   -0.47   0.05   -0.07   -0.12   0.06   36 - I often get angry at the way people treat me.   41 - Too often, when things go wrong, I get discouraged and feel like giving up.   46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.22   -0.06   0.08   -0.12   like is older to solve my problems.   56 - At times I have been so ashamed I just wanted to hide.   5 - I keep my belongings clean and neat.   -0.07   0.49   0.00   0.08   -0.22   10 - I'm pretty good about pacing myself so as to get things done on time.   15 - I am not a very methodical person. (R)   0.12   0.49   0.08   0.17   0.17   0.17   0.19   0.10   0.19   0.00   0.08   0.17   0.17   0.19   0.00   0.08   0.17   0.17   0.19   0.00   0.08   0.04   0.03   0.04   0.05   0.	16 - I rarely feel lonely or blue. (R)	-0.61	-0.11	-0.14	-0.01	0.10
worthless.  31 - I rarely feel fearful or anxious. (R)  36 - I often get angry at the way people treat me.  41 - Too often, when things go wrong, I get discouraged and feel like giving up.  46 - I am seldom sad or depressed. (R)  51 - I often feel helpless and want someone else to solve my problems.  56 - At times I have been so ashamed I just wanted to hide.  5 - I keep my belongings clean and neat.  10 - I'm pretty good about pacing myself so as to get things done on time.  15 - I am not a very methodical person. (R)  20 - I try to perform all the tasks assigned to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get or a support of the property of	21 - I often feel tense and jittery.	0.60	-0.06	-0.12	-0.23	0.11
worthless.  31 - I rarely feel fearful or anxious. (R)  36 - I often get angry at the way people treat me.  41 - Too often, when things go wrong, I get discouraged and feel like giving up.  46 - I am seldom sad or depressed. (R)  51 - I often feel helpless and want someone else to solve my problems.  56 - At times I have been so ashamed I just wanted to hide.  5 - I keep my belongings clean and neat.  10 - I'm pretty good about pacing myself so as to get things done on time.  15 - I am not a very methodical person. (R)  20 - I try to perform all the tasks assigned to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get or a support of the property of	26 - Sometimes I feel completely	0.55	-0.19	-0.10	0.03	0.01
36 - I often get angry at the way people treat me.   41 - Too often, when things go wrong, I get discouraged and feel like giving up.   46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.22   -0.06   0.08     51 - I often feel helpless and want someone lese to solve my problems.   56 - At times I have been so ashamed I just wanted to hide.   5 - I keep my belongings clean and neat.   -0.07   0.49   0.00   0.08   -0.22     10 - I'm pretty good about pacing myself so as to get things done on time.   5 - I am not a very methodical person. (R)   0.12   0.49   0.08   0.17   0.17     15 - I am not a very methodical person. (R)   0.12   0.49   0.08   0.17   0.17     15 - I have a clear set of goals and work toward them in an orderly fashion.   30 - I waste a lot of time before settling down to work. (R)   35 - I work hard to accomplish my goals.   0.07   0.56   -0.09   0.00   -0.03     40 - When I make a commitment, I can always be counted on to follow through.   45 - Sometimes I'm not as dependable or reliable as I should be. (R)   50 - I am a productive person who always gets the job done.   55 - I never seem to be able to get   -0.23   -0.54   0.03   -0.07   -0.06   0.07   -0.06   0.07   -0.06   0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.07   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   -0.07   -0.06   -0.07   -0.08   -0.07   -0.06   -0.07   -0.06   -0.07   -0.06   -0.07   -0					ļ	ļ
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41 - Too often, when things go wrong, I get discouraged and feel like giving up.   46 - I am seldom sad or depressed. (R)   -0.66   -0.06   -0.22   -0.06   0.08     51 - I often feel helpless and want someone else to solve my problems.   56 - At times I have been so ashamed I just wanted to hide.   5 - I keep my belongings clean and neat.   -0.07   0.49   0.00   0.08   -0.22     10 - I'm pretty good about pacing myself so as to get things done on time.   15 - I am not a very methodical person. (R)   0.01   -0.25   -0.14   0.08   0.04     20 - I'try to perform all the tasks assigned to me conscientiously.   25 - I have a clear set of goals and work toward them in an orderly fashion.   30 - I waste a lot of time before settling down to work. (R)   35 - I work hard to accomplish my goals.   0.07   0.61   0.24   -0.02   0.11     40 - When I make a commitment, I can always be counted on to follow through.   45 - Sometimes I'm not as dependable or reliable as I should be. (R)   50 - I am a productive person who always gets the job done.   55 - I never seem to be able to get organized. (R)   60 - I strive for excellence in everything I   -0.03   0.53   0.29   -0.08   0.07   -0.06   0.07   -0.06   0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   0.07   -0.08   -0.07   -0.06   -0.07	36 - I often get angry at the way people	0.51	-0.08	-0.07	-0.28	-0.01
get discouraged and feel like giving up.  46 - I am seldom sad or depressed. (R)  51 - I often feel helpless and want someone else to solve my problems.  56 - At times I have been so ashamed I just wanted to hide.  5 - I keep my belongings clean and neat.  5 - I keep my belongings clean and neat.  5 - I keep my belongings clean and neat.  5 - I am not a very methodical person. (R)  5 - I try to perform all the tasks assigned to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  51 - I never seem to be able to get of the process of the proc	treat me.					
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S1 - I often feel helpless and want someone else to solve my problems.	get discouraged and feel like giving up.			İ		
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else to solve my problems.  56 - At times I have been so ashamed I just wanted to hide.  5 - I keep my belongings clean and neat.  5 - I keep my belongings clean and neat.  5 - I weep my belongings clean and neat.  10 - I'm pretty good about pacing myself so as to get things done on time.  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I weep my belongings clean and neat.  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I have a clear set of goals and work to me conscientiously.  25 - I have a clear set of goals and work to me conscientiously.  25 - I have a clear set of goals and work to make a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	51 - I often feel helpless and want someone	0.54	-0.35	0.04	0.08	-0.12
wanted to hide.  5 - I keep my belongings clean and neat.  5 - I was pretty good about pacing myself so as to get things done on time.  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I am not a very methodical person. (R)  15 - I try to perform all the tasks assigned to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07		.			ļ	ļ
5 - I keep my belongings clean and neat.       -0.07       0.49       0.00       0.08       -0.22         10 - I'm pretty good about pacing myself so as to get things done on time.       -0.05       0.55       -0.05       0.04       0.03         15 - I am not a very methodical person. (R)       0.01       -0.25       -0.14       0.08       0.04         20 - I try to perform all the tasks assigned to me conscientiously.       0.12       0.49       0.08       0.17       0.17         25 - I have a clear set of goals and work toward them in an orderly fashion.       -0.04       0.59       0.22       -0.03       0.02         30 - I waste a lot of time before settling down to work. (R)       -0.14       -0.50       -0.11       0.22       -0.10         35 - I work hard to accomplish my goals.       0.07       0.61       0.24       -0.02       0.11         40 - When I make a commitment, I can always be counted on to follow through.       -0.06       0.58       0.11       0.05       0.11         45 - Sometimes I'm not as dependable or reliable as I should be. (R)       -0.05       0.70       0.08       -0.04       0.15         50 - I am a productive person who always gets the job done.       -0.23       -0.54       0.03       -0.07       -0.06         55 - I never seem to be able to get organi	56 - At times I have been so ashamed I just	0.50	-0.15	-0.03	-0.16	-0.04
10 - I'm pretty good about pacing myself so as to get things done on time.   15 - I am not a very methodical person. (R)   0.01   -0.25   -0.14   0.08   0.04     20 - I try to perform all the tasks assigned to me conscientiously.   25 - I have a clear set of goals and work toward them in an orderly fashion.   30 - I waste a lot of time before settling down to work. (R)   35 - I work hard to accomplish my goals.   0.07   0.61   0.24   -0.02   0.11     40 - When I make a commitment, I can always be counted on to follow through.   45 - Sometimes I'm not as dependable or reliable as I should be. (R)   50 - I am a productive person who always gets the job done.   55 - I never seem to be able to get organized. (R)   60 - I strive for excellence in everything I   -0.03   0.53   0.29   -0.08   0.07   -0.08   0.07   -0.08   0.07   -0.08   -0.07   -0.08   -0.07   -0.08   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0.07   -0.07   -0.06   -0.07   -0.07   -0.07   -0.06   -0.07   -0.07   -0.06   -0.07   -0	wanted to hide.					
so as to get things done on time.       15 - I am not a very methodical person. (R)       0.01       -0.25       -0.14       0.08       0.04         20 - I try to perform all the tasks assigned to me conscientiously.       0.12       0.49       0.08       0.17       0.17         25 - I have a clear set of goals and work toward them in an orderly fashion.       -0.04       0.59       0.22       -0.03       0.02         30 - I waste a lot of time before settling down to work. (R)       -0.14       -0.50       -0.11       0.22       -0.10         35 - I work hard to accomplish my goals.       0.07       0.61       0.24       -0.02       0.11         40 - When I make a commitment, I can always be counted on to follow through.       -0.06       0.58       0.11       0.05       0.11         45 - Sometimes I'm not as dependable or reliable as I should be. (R)       -0.21       -0.56       -0.09       0.00       -0.03         50 - I am a productive person who always gets the job done.       -0.05       0.70       0.08       -0.04       0.15         55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	5 - I keep my belongings clean and neat.	-0.07	0.49	0.00	0.08	-0.22
15 - I am not a very methodical person. (R)	10 - I'm pretty good about pacing myself	-0.05	0.55	-0.05	0.04	0.03
20 - I try to perform all the tasks assigned to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	so as to get things done on time.					
to me conscientiously.  25 - I have a clear set of goals and work toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	15 - I am not a very methodical person. (R)	0.01	-0.25	-0.14	0.08	0.04
25 - I have a clear set of goals and work toward them in an orderly fashion.       -0.04       0.59       0.22       -0.03       0.02 toward them in an orderly fashion.         30 - I waste a lot of time before settling down to work. (R)       -0.14       -0.50       -0.11       0.22       -0.10 toward them in an orderly fashion.         35 - I waste a lot of time before settling down to work. (R)       0.07       0.61       0.24       -0.02       0.11 toward	20 - I try to perform all the tasks assigned	0.12	0.49	0.08	0.17	0.17
toward them in an orderly fashion.  30 - I waste a lot of time before settling down to work. (R)  35 - I work hard to accomplish my goals.  40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07						
30 - I waste a lot of time before settling down to work. (R)   -0.14   -0.50   -0.11   0.22   -0.10     35 - I work hard to accomplish my goals.   0.07   0.61   0.24   -0.02   0.11     40 - When I make a commitment, I can always be counted on to follow through.   45 - Sometimes I'm not as dependable or reliable as I should be. (R)   50 - I am a productive person who always gets the job done.   55 - I never seem to be able to get organized. (R)   -0.23   -0.54   0.03   -0.07   -0.06     60 - I strive for excellence in everything I   -0.03   0.53   0.29   -0.08   0.07	25 - I have a clear set of goals and work	-0.04	0.59	0.22	-0.03	0.02
down to work. (R)       35 - I work hard to accomplish my goals.       0.07       0.61       0.24       -0.02       0.11         40 - When I make a commitment, I can always be counted on to follow through.       -0.06       0.58       0.11       0.05       0.11         45 - Sometimes I'm not as dependable or reliable as I should be. (R)       -0.21       -0.56       -0.09       0.00       -0.03         50 - I am a productive person who always gets the job done.       -0.05       0.70       0.08       -0.04       0.15         55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	toward them in an orderly fashion.					
35 - I work hard to accomplish my goals.       0.07       0.61       0.24       -0.02       0.11         40 - When I make a commitment, I can always be counted on to follow through.       -0.06       0.58       0.11       0.05       0.11         45 - Sometimes I'm not as dependable or reliable as I should be. (R)       -0.21       -0.56       -0.09       0.00       -0.03         50 - I am a productive person who always gets the job done.       -0.05       0.70       0.08       -0.04       0.15         55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	30 - I waste a lot of time before settling	-0.14	-0.50	-0.11	0.22	-0.10
40 - When I make a commitment, I can always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	down to work. (R)					
always be counted on to follow through.  45 - Sometimes I'm not as dependable or reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	35 - I work hard to accomplish my goals.	0.07	0.61	0.24	-0.02	0.11
45 - Sometimes I'm not as dependable or reliable as I should be. (R)       -0.21       -0.56       -0.09       0.00       -0.03         50 - I am a productive person who always gets the job done.       -0.05       0.70       0.08       -0.04       0.15         55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	40 - When I make a commitment, I can	-0.06	0.58	0.11	0.05	0.11
reliable as I should be. (R)  50 - I am a productive person who always gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	always be counted on to follow through.					
50 - I am a productive person who always gets the job done.       -0.05       0.70       0.08       -0.04       0.15         55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	45 - Sometimes I'm not as dependable or	-0.21	-0.56	-0.09	0.00	-0.03
gets the job done.  55 - I never seem to be able to get organized. (R)  60 - I strive for excellence in everything I -0.03	reliable as I should be. (R)					
55 - I never seem to be able to get organized. (R)       -0.23       -0.54       0.03       -0.07       -0.06         60 - I strive for excellence in everything I       -0.03       0.53       0.29       -0.08       0.07	50 - I am a productive person who always	-0.05	0.70	0.08	-0.04	0.15
organized. (R)  60 - I strive for excellence in everything I -0.03 0.53 0.29 -0.08 0.07	gets the job done.	_				
60 - I strive for excellence in everything I -0.03 <b>0.53</b> 0.29 -0.08 0.07	55 - I never seem to be able to get	-0.23	-0.54	0.03	-0.07	-0.06
60 - I strive for excellence in everything I -0.03 <b>0.53</b> 0.29 -0.08 0.07	ı					
		-0.03	0.53	0.29	-0.08	0.07
	,					

Table 6 (cont'd)

Components	Factor				
•	N	С	E	A	0
2 - I like to have a lot of people around me.	-0.16	-0.11	0.52	-0.08	0.01
7 - I laugh easily.	-0.14	-0.01	0.50	0.03	0.05
12 - I don't consider myself especially	-0.18	-0.06	-0.21	0.18	-0.06
"light-hearted." (R)					
17 - I really enjoy talking to people.	-0.16	0.12	0.50	0.00	0.15
22 - I like to be where the action is.	-0.20	0.05	0.51	-0.23	0.10
27 - I usually prefer to do things alone. (R)	-0.26	-0.05	-0.40	0.14	-0.11
32 - I often feel as if I'm bursting with	-0.21	0.20	0.40	-0.24	0.05
energy.					
37 - I am a cheerful, high-spirited person.	-0.19	0.16	0.62	0.17	0.05
42 - I am not a cheerful optimist. (R)	-0.27	0.11	-0.54	0.26	0.08
47 - My life is fast-paced.	-0.17	0.36	0.24	-0.24	0.09
52 - I am a very active person.	-0.19	0.34	0.34	-0.18	0.05
57 - I would rather go my own way than be	-0.36	0.16	-0.22	-0.08	0.18
a leader of others. (R)					
4 - I try to be courteous to everyone I meet.	0.06	0.25	0.41	0.39	0.10
9 - I often get into arguments with my	-0.24	0.08	0.03	-0.42	-0.02
family and co-workers. (R)					
14 - Some people think I'm selfish and	-0.09	0.08	0.09	-0.56	-0.02
egotistical. (R)					
19 - I would rather cooperate with others	0.18	-0.03	0.09	0.34	-0.01
than compete with them.					
24 - I tend to be cynical and skeptical of	-0.44	0.08	0.09	-0.30	0.09
others' intentions. (R)					
29 - I believe that most people will take	-0.31	-0.08	-0.09	-0.31	0.02
advantage of you if you let them. (R)					
34 - Most people I know like me.	-0.13	0.17	0.38	0.23	0.06
39 - Some people think of me as cold and	-0.17	0.01	0.27	-0.47	0.03
calculating. (R)	0.14	0.14		0.50	0.04
44 - I'm hard-headed and tough-minded in	-0.14	-0.14	-0.01	-0.52	0.04
my attitudes. (R)	004	0.00	0.00	0.40	0.10
49 - I generally try to be thoughtful and	0.04	0.30	0.23	0.42	0.13
considerate.	0.00	0.02	0.00	0.54	0.00
54 - If I don't like people, I let them know	-0.03	-0.03	-0.09	-0.56	-0.02
it. (R)	0.00	0.16	0.20	0.54	0.07
59 - If necessary, I am willing to	0.06	0.16	-0.28	-0.56	-0.07
manipulate people to get what I want. (R)	L	l	l		L

Table 6 (cont'd)

Components	Factor				
	N	C	E	A	0
3 - I don't like to waste my time	0.11	-0.32	0.01	0.01	-0.25
daydreaming. (R)					
8 - Once I find the right way to do	-0.14	-0.21	-0.24	0.10	-0.03
something, I stick to it. (R)					
13 - I am intrigued by the patterns I find in	0.07	0.00	0.13	0.13	0.68
art and nature.					
18 - I believe letting students hear	0.00	-0.02	0.11	0.01	-0.11
controversial speakers can only confuse					
and mislead them. (R)					
23 - Poetry has little or no effect on me.	0.05	0.05	-0.03	0.16	-0.56
(R)					
28 - I often try new and foreign foods.	-0.14	0.04	0.11	-0.04	0.42
33 - I seldom notice the moods or feelings	0.10	0.03	0.04	-0.06	-0.43
that different environments produce. (R)					
38 - I believe we should look to our	0.02	-0.05	-0.21	-0.13	-0.09
religious authorities for decisions on moral					
issues. (R)					
43 - Sometimes when I am reading poetry	0.07	0.10	-0.07	0.09	0.61
or looking at a work of art, I feel a chill or					
wave of excitement.					
48 - I have little interest in speculating on	0.02	0.01	-0.08	0.00	-0.59
the nature of the universe or the human					
condition. (R)					
53 - I have a lot of intellectual curiosity.	-0.04	0.04	0.20	-0.19	0.56
58 - I often enjoy playing with theories or	-0.12	-0.01	-0.03	-0.08	0.47
abstract ideas.					

Note. N = Neuroticism; E = Extraversion; O = Openness to experience; A = Agreeableness; C = Conscientiousness.

<sup>(</sup>R) represents reverse coded items

Consequently, it was deemed reasonable to use the NEO-FFI in its entirety, respecting the original five-factor structure. Hence, the resulting scale comprised 60 items and the five-factor measure accounted for 36.70% of the total variance.

Checking Assumptions on the Revised Scales. Following the aforementioned factor analyses and the creation of different subscales for the Brief COPE and the ROCI-II, the assumptions of normality, linearity, homoskedasticity, independence of residuals, and multicollinearity were re-checked in the process of the hierarchical regression analyses. No violation of these assumptions was indicated. More specifically, normality of the three distributions (coping, personality and conflict) was checked by recalculating the z-scores for the skew for all their respective subscales. One of the coping subscales (disengagement) was positively skewed, with a z-score for skew of 4.76. No kurtosis was present in any of the distributions. There were no univariate outliers. I also checked for linearity and homoskedasticity by looking at the scatterplots. All the scatterplots were showing linearity and homoskedasticity between the criterion and the predictor.

Overall, these data do not violate the homogeneity of variance assumption (i.e., homoskedasticity). In regression analyses, however, we usually conduct the preliminary screening of the data through the residuals. Examination of residuals scatterplots provided a test of assumptions of normality, linearity, and homoskedasticity between predicted DV scores and errors of prediction (Tabachnick & Fidell, 2001). The observation of the various scatterplots representing the relationship between the predictors and criteria residuals showed that all assumptions had been met. Therefore, the data were suited for further analyses. After the final cleaning and screening of the data, the responses of 235 individuals were suited for further analyses.

## Results

## Correlations between Variables

In order to examine strength of relationships among the personality, coping, and conflict style variables, correlations between them were performed (see Table 7). Table 7 also shows the means and standard deviations of the variables (N = 235). As indicated in Table 7, the components of the NEO-FFI were all intercorrelated, except for the openness scale. These results were, for the most part, consistent with both Moberg's (2001) and Antonioni's (1998) results on the inter-correlations of the Big Five factors of personality. When examining the inter-correlations between the subscales of the ROCI-II, Table 7 shows that the obliging style was positively correlated with the cooperation and the avoiding styles of handling interpersonal conflict. Although surprising, the results between the cooperation and the obliging styles were somewhat similar to Antonioni's (1998) findings. He found a positive relationship between obliging and compromising, which, in the current study was merged with integrating to create the cooperation subscale. Another surprising result came from the inter-correlations between the factors of the Brief COPE, which all showed positive significant relationships. Theoretically, disengagement should show a negative relation to problem-focused coping, and not a positive one (Carver et al., 1989), as found in this study.

Hypotheses 1-3: Regression Analyses between Personality and Coping

While it is important to determine the extent to which each personality trait relates to each coping mechanism, these personality traits are all present to some degree in every individual, and it may be that in the context of all the traits, certain ones stand out as being more important than others in relation to coping strategies (Hooker et al., 1994).

Table 7

Descriptive Statistics, Internal Consistency Coefficients, and Observed Intercorrelations for the NEO-FFI, ROCI-II and Brief COPE

Variables		_		Perso	onality			Co	onflict sty	le	Coping mechanism				
	M	SD	<del></del> 1	2	3	4	5	6	7	8	9	10	11	12	
Personality				<del></del>											
1.Neuroticism	2.51	0.64	(.84)	45**	25**	25**	.02	13*	.23**	11	.15*	.22**	14*	.19**	
2.Extroversion	3.52	0.54		(.78)	.25**	.19**	.06	.21**	15*	.19**	05	.10	.19**	06	
3.Conscientiousness	3.91	0.52			(18.)	.19**	05	.28**	03	.02	06	13*	.13	34**	
4.Agreeableness	3.74	0.48				(.75)	.02	.26**	.13	32**	.24**	.03	.13	20**	
5.Openness	3.33	0.51					(.70)	.23**	03	04	.04	.16*	.29**	.11	
Conflict style															
6.Cooperation	3.94	0.45						(.87)	05	03	.19**	.03	.18**	04	
7.Avoiding	3.01	0.77							(.74)	05	.46**	04	.00	.06	
8.Domination	2.94	0.68								(.82)	.03	03	.05	.11	
9.Obliging	3.01	0.57									(.74)	.21**	.10	.10	
Coping mechanism															
10.Emotion-focused	2.64	0.74										(.83)	.31**	.32**	
11.Problem-focused	3.20	0.54											(.75)	.164	
12.Disengagement	1.75	0.47												(.73	

Note. \* p < .05; \*\* p < .01; Listwise N = 235;  $\alpha$  on diagonal is Cronbach's alpha of the scale.

Therefore, in order to determine how personality traits predict coping strategies, a multivariate approach, considering all the personality traits together, was necessary to answer this question. In order to explore the question of the relative importance of the personality dimensions in predicting coping strategies, three multiple regression analyses were conducted using the coping scales as dependent variables and entering the five personality factors into the equation simultaneously. Additionally, factors which may be related to coping with workplace stress such as age (Vaillant, 1977), gender<sup>2</sup> (Carver et al., 1989), marital status and work experience (or job tenure; Isikhan, Comez, & Danis, 2004), and SES<sup>3</sup> (i.e., education level and family income; Billings & Moos, 1981) were also entered into the equations so that the personality coefficients would have the influence of these factors statistically removed. A hierarchical model was thus employed.

Table 8 includes the B and  $\beta$  coefficients and change statistics in the three hierarchical regression analyses in predicting the three dimensions of coping with stress. Demographic variables were included in the first step to control for their effects. Gender was shown to significantly predict emotion-focused coping ( $\beta$  = .26, p < .001), job tenure significantly predicted emotion-focused coping ( $\beta$  = -.22, p < .01), and family income significantly predicted problem-focused coping ( $\beta$  = .17, p < .05) and emotion-focused coping ( $\beta$  = .17, p < .05). As shown in Table 8, hypotheses 1, 2, and 3 were partly

<sup>2</sup> For example, tendencies to focus on and vent emotions and to seek social support are greater among women than among men; whereas men tend to cope by using alcohol or drugs more than women (Carver et al., 1989).

<sup>3</sup> For example, people with higher SES have been shown to be more likely to use problem-focused coping (Billings & Moos, 1981).

Table 8

Regression Analyses for Coping Strategies as Predicted by Personality Traits

Predictors		Proble	m-focused			Emotio	n-focused	Disengagement						
	В	(SE)	β	%	В	(SE)	β	%	В	(SE)	β	%		
Step I										,		<del></del>		
Demographic variables														
Gender	.04	(.07)	.03	.00	.39	(.10)	.26***	.06	07	(.06)	07	.00		
Age	.03	(.04)	.08	.00	03	(.05)	05	.00	05	(.03)	14	.01		
Marital status	.00	(.02)	.01	.00	.01	(.03)	.02	.00.	.01	(.02)	.02	.00		
Job tenure	05	(.03)	12	.01	12	(.04)	22**	.03	03	(.03)	10	.01		
Education level	00	(.02)	01	.00	.01	(.03)	.03	.00	02	(.02)	06	.00		
Family income	.10	(.04)	.17*	.02	.13	(.05)	.17*	.02	03	(.03)	05	.00		
	$R^2 = .0$	)7			$R^2 = .$	19		$R^2 = .$	$R^2 = .12$					
	F (6, 2	221) = 2.60	0.p = .019		F (6,	221) = 8.4	1, p = .000	F(6, 221) = 5.21, p = .0001						
Step 2														
Personality traits														
Neuroticism	04	(.07)	05	.00	.22	(.09)	.19*	.02	.07	(.06)	.09	.01		
Extraversion	.08	(80.)	.09	.00	.26	(.10)	.19**	.02	.01	(.06)	.01	.00		
Openness	.29	(.07)	.28***	.07	.14	(.09)	.10	.01	.09	(.06)	.10	.01		
Agreeableness	.06	(80.)	.05	.00	.07	(.10)	.05	.00	07	(.06)	07	.00		
Conscientiousness	.07	(.07)	.07	.00	23	(.09)	17*	.02	21	(.06)	24***	.05		
	$\Delta R^2 =$	.10			$\Delta R^2 =$	· .07		$\Delta R^2 = .09$						
	$\Delta F$ (5,	(216) = 5.3	31, p = .000	10	$\Delta F$ (5	5, 216) = 3	.90, p = .00	2	$\Delta F$ (5	$\Delta F$ (5, 216) = 5.12, $p$ = .0001				

Note. B is the unstandardized parameter estimate.

SE is the standard error of the parameter estimate.

 $<sup>\</sup>beta$  is the standardized regression coefficient.

<sup>%</sup> is the percentage of unique variance explained by the variable (squared semi-partial correlations).

<sup>\*</sup>p < .05; \*\*p < .01; \*\*\*p < .001; Listwise N = 228.

supported: As predicted in hypothesis 1, problem-focused coping was shown to be significantly predicted by openness ( $\beta = .28$ , p < .001), however it was not predicted by neuroticism ( $\beta = -.05$ , p > .05), nor conscientiousness ( $\beta = .07$ , p > .05). As predicted (hypothesis 2), emotion-focused coping was significantly predicted by extraversion ( $\beta$  = .19, p < .01), however, unlike hypothesized, it was also predicted by neuroticism ( $\beta = .19$ , p < .05) and conscientiousness ( $\beta = -.16 p < .05$ ). Emotion-focused coping was not predicted, as expected, by openness ( $\beta = .10$ , p > .05) and agreeableness ( $\beta = .05$ , p >.05). As hypothesized (hypothesis 3), disengagement was shown to be significantly predicted by conscientiousness ( $\beta = -.24$ , p < .001), however, the regression failed to produce the expected results for neuroticism ( $\beta = .09$ , p > .05), extraversion ( $\beta = .01$ , p > .05) .05), agreeableness ( $\beta = -.07$ , p > .05), and openness ( $\beta = .10$ , p > .05). In sum, neuroticism, extraversion, openness, and conscientiousness were all significant predictors of coping mechanisms in these hierarchical regressions. Although agreeableness had a zero-order relationship with coping strategies, it was correlated with neuroticism, extraversion, and conscientiousness, thus reducing the variance apportioned to it in the multivariate models.

The hierarchical regression analysis results showed that the demographic variables, entered in the first step, accounted for a significant proportion of the variance in the three equations. Specifically, demographic variables accounted for 7% of the variance in problem-focused coping (F(6, 221) = 2.60, p < .05), 19% in emotion-focused coping (F(6, 221) = 8.41, p < .001), and 12% in disengagement (F(6, 221) = 5.21, p < .001). Entering personality traits simultaneously into the equation significantly improved the prediction of problem-focused coping  $(\Delta R^2 = .10, F_{inc}(5, 216) = 5.31, p < .001)$ , emotion-

focused coping ( $\Delta R^2 = .07$ ,  $F_{inc}(5, 216) = 3.90$ , p < .01), and disengagement ( $\Delta R^2 = .09$ ,  $F_{inc}(5, 216) = 5.12$ , p < .001).

Overall, the results from these regression analyses show that personality is related to use of coping mechanisms in this sample of working individuals, accounting for an increment portion of the variance of 10% in problem-focused, 7% in emotion-focused, and 9% in disengagement.

Hypothesis 4 – 7: Regression Analyses between Personality and Conflict

In order to examine how personality traits predicted conflict management styles, analyses similar to the ones used to examine coping mechanisms were performed. Four hierarchical regressions analyses were conducted to explore the question of the relative importance of the personality dimensions in predicting conflict management styles. In order to control for extraneous variables statistically -because they could be a possible source of variance in the criterion variables- gender, age, marital status, job tenure, education level, and family income were also entered in the equations. In a similar fashion as for coping mechanisms, demographic variables were entered in the first step of the hierarchical regressions, and the five personality factors were entered together in the second step. Conflict styles were the dependent variables.

Table 9 shows that some of the personality traits are significant predictors of conflict management strategies. Indeed, as predicted in hypothesis 4, cooperation (the merger between *integrating* and *compromising*) was significantly predicted by agreeableness ( $\beta = .21$ , p < .01), and conscientiousness ( $\beta = .23$ , p < .01), however, openness ( $\beta = .25$ , p < .001) was also a significant predictor of cooperation, which was not hypothesized. Moreover, unlike expected, extraversion ( $\beta = .11$ , p > .05) was not a

Table 9 Regression Analyses for Conflict Styles as Predicted by Personality Traits

Predictors		Coop	eration		Avoiding					Do	minating		Obliging				
	В	(SE)	β	%	В	(SE)	β	%	В	(SE	3) β	<del>%</del>	В	(SE)	β	%	
Step 1									<del></del>	<del></del>							
Demographic variables																	
Gender	.04	(.06)	.05	.00	.03	(11.)	.02	.00	15	(.09)	11	.01	.15	(.08)	.13	.01	
Age	06	(.03)	16	.01	07	(.06)	12	.01	.00	(.05)	.00	.00	07	(.04)	16	.01	
Marital status	03	(.02)	12	.01	.02	(.03)	.05	.00	.06	(.03)	.16*	.02	.01	(.02)	.02	.00	
Job tenure	.04	(.02)	.13	.01	.05	(.04)	.10	.01	.00	(.04)	.00	.00	.03	(.03)	.06	.00	
Education level	01	(.02)	04	.00	.03	(.03)	.08	.01	00	(.03)	.00	.00	01	(.02)	03	.00	
Family income	02	(.03)	04	.00	03	(.06)	03	.00	.08	(.05)	.11	.01	.06	(.04)	.10	.01	
	$R^2 = .0$	02			$R^2 = .$	04			$R^2 = .$	08			$R^2 = .0$	)5			
F(6, 221) = .92, p = .484				F (6,	221) = 1.	35, p = .2	36	F (6,	221) = 3.	$12, p \approx .00$	6	F(6, 221) = 1.98, p = .070					
Step 2																	
Personality traits																	
Neuroticism	.00	(.05)	.01	.00	.22	(.10)	.18*	.02	09	(80.)	09	.00	.12	(.07)	.13	.01	
Extraversion	.09	(.06)	.11	.01	17	(.11)	12	.01	.22	(.09)	.18*	.02	05	(.08)	04	.00	
Openness	.22	(.06)	.25***	.06	05	(.10)	03	.00	02	(80.)	02	.00	.03	(.07)	.02	.00	
Agreeableness	.20	(.06)	.21**	.04	.33	(.11)	.21**	.04	52	(.09)	38***	.12	.36	(.08)	.30***	.08	
Conscientiousness	.20	(.06)	.23**	.04	.05	(.10)	.03	.00	.07	(.09)	.05	.00	09	(80.)	08	.00	
	$\Delta R^2 =$	$\Delta R^2 =$	: .07			$\Delta R^2 =$	: .14			$\Delta R^2 = .09$							
	$\Delta F$ (5)	, 216) = 10	0.36, p = .00	001	$\Delta F$ (5	i, 216) = :	3.48, p = .	005	$\Delta F$ (5	, 216) = <sup>(</sup>	7.81, p = .0	001	$\Delta F$ (5, 216) = 4.35, $p$ = .001				

*Note*. B is the unstandardized parameter estimate. SE is the standard error of the parameter estimate.

β is the standardized regression coefficient.

<sup>%</sup> is the percentage of unique variance explained by the variable (squared semi-partial correlations). p < .05; \*\* p < .01; \*\*\* p < .001; Listwise N = 228.

significant predictor of cooperation. The avoiding style of handling interpersonal conflict (hypothesis 5) was predicted by agreeableness ( $\beta$  = .21, p < .01), as expected, as well as by neuroticism ( $\beta$  = .18, p < .05), which was not expected. Also, conscientiousness ( $\beta$  = .03, p > .05) was not a significant predictor of the avoiding style, as hypothesized. Hypothesis 6 was also partly supported since agreeableness ( $\beta$  = -.38, p < .001) was a significant predictor of the dominating style, so was extraversion ( $\beta$  = .18, p < .05), which was not expected. Furthermore, neuroticism ( $\beta$  = -.09, p > .05) was not a significant predictor of that style of handling interpersonal conflict. Lastly, hypothesis 7 received partial support since agreeableness ( $\beta$  = .30, p < .001) was a significant predictor of the obliging style, while neuroticism ( $\beta$  = .13, p > .05) did not predict the obliging style.

The demographic variables accounted for a significant amount of variance in only one of the four models (the model predicting dominating;  $R^2$  = .08, F (6, 221) = 3.12, p < .01), with marital status ( $\beta$  = .16, p < .05) being a significant predictor of the use of the dominating style of handling interpersonal conflict. Specifically, people who are not married or living with a partner are more likely to use this style of handling interpersonal conflict than married individuals. When personality factors were entered into the equations after demographic variables, they accounted for significant additional variance in all four models. Namely, personality traits accounted for an increment of 19% of the variance in the model predicting cooperation ( $F_{inc}$  (5, 216) = 10.36, p < .001), 7% in the model predicting avoiding ( $F_{inc}$  (5, 216) = 3.48, p < .01), 14% in the model predicting dominating ( $F_{inc}$  (5, 216) = 7.81, p < .001), and 9% in the model predicting obliging ( $F_{inc}$  (5, 216) = 4.35, p < .01).

In sum, hypotheses 4 to 7 were partly supported, and the equations predicting the four conflict management styles from personality traits were all significant, with the increment percentage of variance accounted for ranging from 7% to 19%.

Hypothesis 8 – 12: Regression Analyses between Coping and Conflict

In order to examine how coping mechanisms predicted conflict management styles, analyses similar to the aforementioned ones were performed. Four hierarchical regressions analyses were conducted to explore the question of the relative importance of the coping mechanisms in predicting conflict management styles, whereby conflict styles were the dependent variables. In order to control for extraneous variables statistically gender, age, marital status, job tenure, education level, and family income were entered in the equations in the first step of the model, and the three coping mechanisms (IVs) were entered simultaneously in the second step of the equation.

As shown in Table 10, only problem-focused coping was a significant predictor of conflict management styles. More specifically, hypothesis 8, which stated that the integrating style of handling interpersonal conflict would be predicted by problem-focused coping and disengagement was partially supported. Problem-focused coping ( $\beta$  = .20, p < .01) was a significant predictor of cooperation, as expected; whereas disengagement was not ( $\beta$  = -.06, p > .05). Hypothesis 9 was not supported. Indeed, the obliging style of handling interpersonal conflict was not shown to be predicted by emotion-focused coping ( $\beta$  = -.13, p > .05) or problem-focused coping ( $\beta$  = .04, p > .05). The hypothesized prediction of the dominating style of handling interpersonal conflict (hypothesis 10) was not supported since emotion-focused coping ( $\beta$  = -.09, p > .05) failed to predict this style. Also, problem-focused coping ( $\beta$  = .04, p > .05) and disengagement

Table 10 Regression Analyses for Conflict Styles as Predicted by Coping Mechanisms

Predictors		Coope	eration		Avoiding					Don	ninating		Obliging				
	В	(SE)	β	%	В	(SE)	β	%	В	(SE)	β	%	В	(SE)	β	%	
Step 1					<u></u>					<del></del>			<del>.</del>				
Demographic variables																	
Gender	.09	(.06)	.10	.01	.25	(.11)	.16*	.02	22	(.09)	16*	.02	.19	(.08)	.17*	.02	
Age	03	(.03)	09	.00	05	(.06)	08	.00	05	(.05)	09	.00	04	(.04)	09	.00	
Marital status	03	(.02)	10	.01	.02	(.03)	.05	.00	.06	(.03)	.15	.02	.01	(.03)	.04	.00	
Job tenure	.04	(.03)	.11	.01	.05	(.05)	.08	.01	.01	(.04)	10.	.00	.04	(.03)	.10	.01	
Education level	01	(.02)	02	.00	.04	(.03)	.08	.01	.00	(.03)	.01	.00	01	(.02)	04	.00	
Family income	02	(.04)	04	.00	03	(.06)	-,03	.00	.11	(.05)	.16*	.02	.03	(.05)	.05	.00	
	$R^2 =$	.02			$R^2 = .$	.04			$R^2 = .$	80			$R^2 = 0$	05			
	F(6, 221) = .92, p = .484				F(6, 221) = 1.35, p = .236				F (6,	221) = 3.1	2, p = .00	6	F(6, 221) = 1.98, p = .070				
Step 2																	
Coping mechanisms																	
Emotion-focused	.00	(.05)	00	.00	15	(80.)	15	.02	09	(.07)	09	.01	.10	(.06)	.13	.01	
Problem-focused	.17	(.06)	.20**	.03	.05	(.10)	.04	.00	.06	(.09)	.05	.00	.04	(.08)	.04	.00	
Disengagement	06	(.07)	06	.00	.16	(.12)	.10	.01	.15	(.11)	.10	.01	.06	(.09)	.05	.00	
	$\Delta R^2$ =	= .04			$\Delta R^2 = .02$				$\Delta R^2 =$	.01			$\Delta R^2 = .03$				
	ΔF (:	3, 218) = 2	2.78, p = .0	)42	$\Delta F$ (3	$\Delta F$ (3, 218) = 1.33, $p$ = .267			$\Delta F$ (3, 218) = 1.03, $p$ = .378				$\Delta F$ (3				

Note. B is the unstandardized parameter estimate.

SE is the standard error of the parameter estimate.

β is the standardized regression coefficient.

<sup>%</sup> is the percentage of unique variance explained by the variable (squared semi-partial correlations). p < .05; \*\* p < .01; \*\*\* p < .001; Listwise N = 228.

 $(\beta = .10, p > .05)$  did not significantly predict avoiding (hypothesis 11). The results of hypothesis 12 are collapsed with those of hypothesis 8 since cooperation is comprised of the integrating and compromising styles of handling interpersonal conflict (see *analyses* section). Overall, coping mechanisms can be argued to be somewhat related to the use of conflict management styles in this sample of working individuals, however, not as hypothesized.

The hierarchical regression analysis results showed that the demographic variables successfully accounted for a significant proportion of variance (8%) in the dominating equation (R = .21, F (6, 221) = 3.12, p < .01), with gender ( $\beta$  = -.16, p < .05) and family income ( $\beta$  = .16, p < .05) being significant predictors. Gender was a significant predictor of three conflict management styles, namely avoiding, dominating, and obliging such that women were more likely to use avoiding and obliging than men, while men were more likely to use dominating, Entering personality traits into the equation significantly improved the prediction of cooperation ( $\Delta R^2$  = .04,  $F_{inc}$  (3, 218) = 2.78, p < .05), however, this was not the case for avoiding ( $\Delta R^2$  = .02,  $F_{inc}$  (3, 218) = 1.33, p > .05), dominating ( $\Delta R^2$  = .01,  $F_{inc}$  (3, 218) = 1.03, p > .05), and obliging ( $\Delta R^2$  = .03,  $F_{inc}$  (3, 218) = 2.01, p > .05).

Overall, hypotheses 8 and 12 (which were combined to assess the prediction of *cooperation*) were partly supported, as problem-focused coping was a significant predictor of these styles of handling conflict; however, emotion-focused coping and disengagement were not shown to be significant predictors of any style. Hypothesis 9 was not supported, nor were hypotheses 10 and 11. Interestingly, however, coping mechanisms were shown to predict the use of the cooperation (integrating and

compromising) style of handling interpersonal conflict over and above demographic variables, while the other three conflict styles were not shown to be predicted by coping mechanisms.

Hypothesis 13: The Mediation Effects of Coping Mechanisms in Predicting Conflict Management Styles.

Mediation can be assessed with traditional regression models or with path analytic techniques, such as structural equation modeling (SEM). In the current study, the original goal was to use the SEM technique, which is a technique designed to evaluate how well a causal model represents the data. The key finding of interest in mediation is whether the direct relationship from personality to conflict styles would be necessary to achieve satisfactory model fit. If not, this would provide some support for the idea that coping mediates the personality-conflict style relationship. If, by contrast, a direct path from personality traits to conflict management styles is needed to achieve satisfactory fit, then the effect of personality is less likely to be completely due to coping strategies. Therefore, it would be inconsistent with a mediation model if personality continued to have a direct effect on conflict styles, even when coping mechanisms were included in the model.

Conversely, support for full or partial mediation would be found if a direct path from personality traits to conflict management styles was not necessary to achieve satisfactory model fit, suggesting that coping mechanisms mediated the relationship between personality and conflict management styles.

Specifically, SEM refers to a hybrid model with both multiple indicators for each variable (called latent variables or factors), and specified paths connecting the latent variables (Garson, n.d.). The SEM process centers around two steps: (1) validating the measurement model and (2) fitting the structural model. The former step is accomplished

primarily through confirmatory factor analysis (CFA), while the latter is accomplished primarily through path analysis with latent variables (Garson, n.d.). One starts by specifying a model on the basis of theory. Each variable in the model is conceptualized as a latent one, measured by multiple indicators. In the current study, personality (comprising five indicators), coping (comprising four indicators), and conflict (comprising four indicators and one additional indicator resulting from the coded conflict situation open-ended answers) were the latent variables. In theory, several indicators are developed for each model, with a view to winding up with at least three per latent variable after CFA (Garson, n.d.). Factor analysis is used to establish that indicators seem to measure the corresponding latent variables, represented by the factors. In order to establish if the structural model fits the data, the researcher has to first validate the measurement model. In the current study, this first condition was not met. Indeed, in an attempt at testing the SEM technique on the data, using EQS 6.1 for Windows, the factors of each latent construct were found to be separate, some orthogonal in fact, making them unsuitable for SEM as indicators of a single latent construct. In other words, SEM could not be used because the latent constructs of personality and coping did not truly have multiple indicators (the subfacets of coping, personality, conflict, are distinct and not different measurements of the same thing). For instance, while personality is one construct, its five dimensions (which were found to be orthogonal in this study) did not fit as indicators, and very little percent variance of each trait was getting into the solution, contributing to abysmal fit. In sum, as a test of the meaningfulness of latent variables and their indicators, the CFA step in SEM failed to show that this data was suited for step 2 of the SEM technique. Hence, because the data was not suited for SEM, multiple regressions

were use to test for the mediating effects of coping mechanisms on conflict management styles.

Generally speaking, mediation can be said to occur when (1) the IV significantly affects the mediator (path A in Figure 1), (2) the IV significantly affects the DV in the absence of the mediator (path C in Figure 1), (3) the mediator has a significant unique effect on the DV (path B in Figure 1), and (4) the effect of the IV on the DV shrinks upon the addition of the mediator to the model (Preacher & Leonardelli, 2001; originally presented by Baron and Kenny, 1986). Therefore, the first three conditions require that the three paths (A, B, and C) are all individually significant. The final step consists of demonstrating that when the mediator and the IV are used simultaneously to predict the dependent variable, the previously significant path between the IV and DV (path C) is significantly reduced, if not nonsignificant. Maximum evidence for mediation would occur if path C dropped to zero (Howell, 2002). That is, I expected that the impact of personality traits (the IV or predictor) on conflict management styles (the DV or criterion) would be substantially or completely reduced by introducing coping mechanisms (the mediator) within the model, thus documenting partial or complete mediation, respectively. In other words, the effects of coping mechanisms on conflict management styles were expected to prevail over those of personality traits.

The first three steps required to test for mediation using the Baron and Kenny (1986) multi-step regression procedure are detailed above, in the sections related to hypotheses 1 through 12. Specifically, step 1 was tested through the multiple regressions assessing the impact personality traits had on coping mechanisms (hypotheses 1-3). Three of the four regressions testing these hypotheses were found to be significant (see Table 8), providing support for the idea that personality traits do predict coping mechanisms.

Namely, problem-focused, emotion-focused, and disengagement coping strategies were significantly predicted by some personality traits. Therefore, condition 1 of the Baron and Kenny (1986) procedure was met, or said differently, path A was significant. Indeed, although not all predictors were significant for all outcomes, the addition of personality in the model predicting coping mechanisms was significant for the three predictions. Therefore, since I was interested in evaluating the increment of personality traits (entered simultaneously), this was as an indication that path A of the mediation model was significant. Similarly, path C of the model was significant. More specifically, Step 2 was tested through the multiple regressions examining the effect personality traits had on conflict management styles (hypotheses 4-7). As shown in Table 9, all of the four multiple regressions testing hypotheses 4 to 7 were significant, demonstrating that personality did indeed predict conflict management styles, or said differently, path C was significant. Condition 2 was, thus, also met. Step 3, assessing the impact coping mechanisms had on conflict management styles (hypotheses 8-12) did not produce the desired findings. Of the four multiple regressions performed to examine these hypotheses, only one individual predictor variable was found to be significant (i.e., the one predicting the dominating style; see Table 10); moreover, the only significant predictors of this equation were demographic variables (i.e., gender and family income). In other words, the relationships between coping mechanisms and conflict management styles were not found to be significant, failing to provide support for the existence of path B. Said differently, path B was nonsignificant, and this violates one of the rules of Baron and Kenny's (1986) multi-step mediation procedure. This had further implications on the analysis of the mediation model, since the effect of the IV (personality) on the DV (conflict styles) was unlikely to be reduced upon the addition of the mediator (coping) to

the model. The multiple regressions testing the mediation hypothesis (hypothesis 13) were still performed to complete the multi-step procedure.

To complete the test of the mediated path, a direct test of the full or partial mediational path (Personality traits → Coping mechanisms → Conflict Management Styles) was conducted. This test was done through hierarchical regression, whereby the demographic variables were first entered simultaneously, the coping mechanisms were entered together in the second step, and the personality traits were entered together in the third step. This resulted in nonsignificant models of mediation for all four conflict management styles (see Tables 11-14), since all the predictors that were significant in Step 2 (Path C) of the multi-step method were still significant after the addition of coping mechanisms to the equations. If mediation had been successful, all or at least some of the predictors would have failed to yield significance in this last step of the procedure, and individual betas would have changed from Table 9.

In sum, the effects of coping mechanisms on conflict management styles did not prevail over those of personality traits. In fact, personality predicted all four conflict management styles after taking into consideration the effects of demographic variables and coping mechanisms. Taken together, the results from these analyses demonstrate that coping mechanisms do not mediate the relationship between personality traits and conflict management styles. Thus, the mediation hypothesis failed to be supported.

#### Discussion

The major objective of this study was to investigate relations between personality traits, coping mechanisms and conflict management styles, namely whether coping mechanisms mediated the relationship between personality traits and conflict

Table 11

Regression Analyses for the Mediating Effects of Coping Mechanisms on the Cooperation

Style

Step	Predictors	В	β	R	$R^2$	$\Delta R^2$	$\Delta F$
1	Gender	.04	.05	.16	.02	.02	.92
	Age	06	16				
	Marital status	03	12				
	Job tenure	.05	.15				
	Education level	01	03				
	Family income	02	04				
2	Emotion-focused	.00	.01	.25	.06	.04	2.78*
	Problem-focused	.05	.06				
	Disengagement	.05	.05				
3	Neuroticism	.00	.00	.47	.22	.16	8.63***
	Extraversion	.09	.10				
	Openness	.20	.23*				
	Agreeableness	.20	.21*				
	Conscientiousness	.20	.24*				

Table 12

Regression Analyses for the Mediating Effects of Coping Mechanisms on the Avoiding

Style

Step	Predictors	В	β	R	$R^2$	$\Delta R^2$	$\Delta F$
1	Gender	.11	.07	.19	.04	.04	1.35
	Age	08	12				
	Marital status	.02	.05				
	Job tenure	.05	.08				
	Education level	.04	.09				
	Family income	.00	01				
2	Emotion-focused	17	17*	.23	.05	.02	1.33
	Problem-focused	.11	.07				
	Disengagement	.15	.09				
3	Neuroticism	.25	.21*	.36	.13	.08	3.75**
	Extraversion	13	10				
	Openness	06	04				
	Agreeableness	.34	.22*				
	Conscientiousness	.03	.02				

Table 13

Regression Analyses for the Mediating Effects of Coping Mechanisms on the Dominating

Style

Step	Predictors	В	β	R	$R^2$	$\Delta R^2$	$\Delta F$
1	Gender	11	08	.28	.08	.08	3.12**
	Age	.01	.01				
	Marital status	.06	.16*				
	Job tenure	.00	.00				
	Education level	.00	.01				
	Family income	.08	.12				_
2	Emotion-focused	06	07	.30	.09	.01	1.03
	Problem-focused	.06	.05				
	Disengagement	.16	.11				
3	Neuroticism	09	08	.48	.23	.14	7.75***
	Extraversion	.23	.19*				
	Openness	05	03				
	Agreeableness	51	37***				
	Conscientiousness	.09	.07				

Table 14

Regression Analyses for the Mediating Effects of Coping Mechanisms on the Obliging

Style

Step	Predictors	В	β	R	$R^2$	$\Delta R^2$	$\Delta F$
1	Gender	.13	.11	.23	.05	.05	1.98
	Age	07	15				
	Marital status	.01	.02				
	Job tenure	.04	.10				
	Education level	01	03				
	Family income	.04	.07				
2	Emotion-focused	.08	.11	.28	.08	.03	2.02
	Problem-focused	.05	.05				
	Disengagement	.07	.06				
3	Neuroticism	.10	.11	.40	.16	.08	4.12*
	Extraversion	07	07				
	Openness	01	01				
	Agreeableness	.35	.30***				
	Conscientiousness	05	05				

management styles. The results of this study failed to support the mediation hypothesis; however, some of the expected overall predictions between the three variables of interest were significant. Indeed, personality traits were shown to significantly predict coping mechanisms, as previously demonstrated by Hooker and colleagues (1994). Moreover, as previously shown by Antonioni (1998) and Moberg (2001), personality traits were shown to significantly predict conflict management styles. As expected, coping mechanisms were partly shown to predict conflict management styles. Contrary to expectation, however, coping mechanisms did not mediate the relationship between personality traits and conflict management styles.

When examining the unique contribution personality traits have on coping mechanisms, one notices that hypotheses 1 to 3 received partial support. Specifically, problem-focused coping was shown to be significantly predicted by openness (hypothesis 1), emotion-focused coping was significantly predicted by extraversion (hypothesis 2), and disengagement was shown to be significantly predicted by conscientiousness (hypothesis 3). Unexpected findings emerged, namely, emotion-focused coping was shown to be predicted by neuroticism and conscientiousness. A possible explanation for these findings may be that neurotic individuals, who are typically more anxious, sad, and self-conscious than individuals who are less neurotic (McCrae & Costa, 1987) need to get their feelings validated. Therefore, it is likely that they rely on coping mechanisms that entail seeking emotional and instrumental support from co-workers and family members in order to vent off their negative feelings. On the other hand, conscientious individuals, who tend to be careful, reliable, hard-working, well-organized, and purposeful (McCrae & Costa, 1987), may prefer to avoid using their social network when dealing with stressful situations at work, and to tackle the issue on their own.

Although support for the aforementioned hypotheses was found, many of the predicted relationships failed to be supported. Indeed, contrary to hypothesis 1 and contrary to Hooker and colleagues' (1994) study, problem-focused coping was not found to be predicted by neuroticism (hypothesis 1). Problem-focused coping also failed to be predicted by conscientiousness (hypothesis 1). Emotion-focused coping was not predicted by openness or agreeableness (hypothesis 2). Also, contrary to hypothesis 3 and to Hooker and colleague's study, disengagement was not shown to be predicted by neuroticism, nor was it predicted by extraversion, agreeableness, and openness.

There are three possible explanations for the failure to find support for these relationships. The first explanation lies in the type of stressful response assessed. Specifically, in the current study, a dispositional measure of coping mechanisms was employed. Indeed, Carver (1997) claims the Brief COPE measures individuals' general tendency to cope with stressful events. However, the Brief COPE was developed and tested among a sample of community residents who were participating in a study of recovery after Hurricane Andrew (Carver, 1997). Although an advantage of using this measure was that it had been validated among a non-student sample, its external validity may have been limited by the fact that the Brief COPE assesses individuals' use of coping mechanisms when they are under a good deal of real-life stress. In other words, perhaps the Brief COPE is better suited to evaluate coping responses when individuals are in a crisis situation, which was the not the case in the current study. Consequently, the Brief COPE may be suggested to be unsuited to assess working individuals' general coping strategies when dealing with daily hassles and typical stressful events such as organizational conflicts.

A second possible explanation may be related to the instructions given to participants before completing the Brief COPE and to item wording. When filling out this measure, participants were asked to "indicate what you generally do and feel when you experience stressful events". Instead of using such general instructions, in retrospect it may have been better to specify that stressful events had to be work-related, since it is believed that individuals adapt their coping strategies to the type of stressful situations they face. Indeed, according to Terry (1994), individuals typically employ problemfocused coping to deal with potential controllable problems such as work-related problems and family-related problems; whereas stressors perceived as less controllable, such as physical health problems, incite more emotion-focused coping. If participants had been asked to rate their coping strategies when dealing with a work-related issue, they may have reported their coping styles differently. In fact, the Brief COPE scores may suffer from range restriction, which would explain the low variability in the scores. Also, the wording of the items on the brief COPE could be better written to tap into dispositional coping. For instance, instead of this wording: "I've been getting emotional support from others", items could read as follows: "I usually get emotional support from others".

Third, some of the current hypotheses were modeled after Hooker and colleagues' (1994) study which, as previously mentioned, assessed a sample of spouse caregivers living in the same household with patients who had a confirmed diagnosis of Alzheimer's disease or a related dementia. Although Hooker and colleagues' study was well designed, it may lack in external validity. Indeed, some researchers argue that coping strategies evolve over the years as a result of changes in cognitive-developmental reorganization in adulthood and developmental maturity (Irion & Blanchard-Fields, 1987). It is, in fact,

suggested that older adults become more effective copers and have a better sense of reality than younger adults (Vaillant, 1977), and that older adults more effectively balance both instrumental and emotional coping strategies depending on the appraised controllability of the situation (Blanchard-Fields, 1989). Consistent with this theory, researchers have found that compared with younger individuals, adults seem to use more flexible and mature coping mechanisms in the second half of the life-span (Diehl, Coyle, & Labouvie-Vief 1996). Such mechanisms include withholding inappropriate feelings and thoughts until a more appropriate setting is encountered, or reinterpretation of situations on the basis of more general principles. Other researchers have also reported a decrease, among older adults, in the use of hostile reactions and escapist-fantasy strategies (McCrae, 1982). Therefore, coping behaviours should differ among younger and older adults, and perhaps it is not possible to generalize the results from Hooker and colleagues' study to a sample of younger working adults, such as those assessed in the current study (where the mode for age was 25 to 34 years).

In sum, the findings from this study demonstrated that four of the five personality traits, namely neuroticism, extraversion, openness to experience, and conscientiousness uniquely predicted the use of one or two coping styles. Neurotic individuals were more likely to use emotion-focused coping; extraverted individuals were more likely to use emotion-focused coping; open individuals were more likely to use problem-focused coping; and conscientious individuals were less likely to use emotion-focused coping and disengagement. The overall hierarchical regression equations showed that personality traits significantly predicted the use of all three coping mechanisms.

Hypotheses 4 to 7, measuring the unique impact of personality traits on conflict management styles, also received partial support. As predicted, cooperation (the merger

between *integrating* and *compromising*) was significantly predicted by agreeableness and conscientiousness (hypothesis 4), avoiding was predicted by agreeableness (hypothesis 5), dominating was significantly predicted by agreeableness (hypothesis 6), and obliging was shown to be predicted by agreeableness as well (hypothesis 7).

Unexpected results were also found, namely, cooperation was significantly predicted by openness, avoiding was shown to be predicted by neuroticism, and dominating was predicted by extraversion. Although these relationships were not found in Antonioni's (1998) manager sample, they were shown among his student sample. Indeed, in his study examining the relationship between personality traits and conflict management styles, Antonioni assessed two groups: one comprised of 120 managers, and one comprised of 351 undergraduate students. Both samples completed the same measures, yet the results from the two samples were somewhat different. Among the discrepancies between the results in Antonioni's study were those found unexpectedly here. In other words, Antonioni's results in his student sample are quite similar to the results found in the present study. Specifically, as found in this study, Antonioni found (in his student sample) that cooperation was significantly predicted by openness, avoiding was predicted by neuroticism, and dominating was predicted by extraversion. In fact, of the eight significant unique predictions yielded in this part of the current study, seven match those found in the student sample of Antonioni's study, while only three match the results yielded in his manager sample. This suggests that the sample assessed in the current study may be more similar to Antonioni's student sample than to his sample of managers. This suggestion is likely since a large portion of the participants of the current study were students, whether at the undergraduate or MBA level (the exact number of students is not known), while only one third of participants were managers.

Although support for the existence of a significant relationship between personality traits and conflict styles was found, some of the predicted relationships failed to be supported. Indeed, contrary to expectations, cooperation was not significantly predicted by extraversion (hypothesis 4), avoiding was not predicted by conscientiousness (hypothesis 5), dominating was not predicted by neuroticism (hypothesis 6), and obliging was not predicted by neuroticism (hypothesis 7). A possible explanation for the failure to yield the aforementioned findings may be due to sampling. In fact, there are quite some similarities between the findings and the lack of findings between the sample examined in this study and Antonioni's (1998) student sample. That is, in addition to the similarities found in the expected and unexpected findings between this study and Antonioni's student sample (as shown above), similarities were also encountered in the failure to find some unique predictions between personality traits and conflict management styles. Indeed, as it was the case in the current study, Antonioni found no relationship between extraversion and cooperation, between avoiding and conscientiousness, or between dominating and neuroticism. Since the current sample did include several students, whether Psychology undergraduates or MBA students, it is likely that both Antonioni's student sample and the current sample possess similar characteristics, and thus, yielded similar results. Antonioni suggested that the differences in managers' and students' results were, in part, due to the difference in the type of environment both groups typically evolved in. For example, he argued that organizations are generally less likely to encourage an attitude of openness compared to universities, which generally foster intellectualism, philosophical and artistic thinking, not to mention creativity and imagination. This may explain why openness was not a significant predictor of conflict styles in his manager sample but it was in his student sample, as it is the case in the

current study. Overall, this suggests that the present sample parallels Antonioni's student sample, more than it does his manager sample (on which hypotheses were based).

In sum the findings from this study demonstrated that all five personality traits uniquely predicted the use of one or more conflict management styles. Neurotic individuals were more likely to use avoiding; extraverted individuals were more likely to use dominating; open individuals were more likely to use cooperation; and, conscientious individuals were more likely to use cooperation as well. Interestingly, agreeableness was found to be the strongest predictor of conflict management styles, since it was shown to predict all four conflict styles. Namely, agreeable individuals are more likely to use cooperation, avoiding, and obliging, and less likely to use dominating. The overall hierarchical regression equations showed that personality traits significantly predicted the use of all four conflict management styles above and beyond the effect of demographic variables.

Hypotheses 8 to 12 measured the impact of coping mechanisms on conflict management styles. Only one of the expected results was found, namely, problem-focused coping significantly predicted cooperation (hypotheses 8 and 12, since cooperation represents the collapse of *integrating* and *compromising*). Moreover, one of the four hierarchical regressions examining the prediction of conflict styles by coping mechanisms was significant. Indeed, cooperation was significantly predicted by coping mechanisms. These findings are quite interesting and confirm the hypothesis that coping mechanisms come into play when individuals handle interpersonal conflicts at work.

Most of the other hypothesized predictions between coping mechanisms and conflict management styles, however, failed to reach significance. Indeed, hypothesis 8, which stated that the integrating style of handling interpersonal conflict would also be predicted

by disengagement was not supported. Hypothesis 9, whereby emotion-focused coping and problem-focused coping were expected to predict the obliging style of handling interpersonal conflict was not shown to be significant. Hypothesis 10, which stated that emotion-focused coping would predict the dominating style was also not supported, nor was hypothesis 11, whereby problem-focused coping and disengagement were expected to predict the avoiding style.

The reasons explaining the failure to find support for the majority of the predictions of conflict management styles by coping mechanisms (hypotheses 8 to 12) are similar to the ones mentioned for the prediction of coping mechanisms by personality traits (hypotheses 1 to 3). Specifically, it is suggested that conflicting parties are unlikely to qualify a conflict situation as a "life threatening" issue. Conflict will typically be described as a stressful event, however, not to a point where it is considered a critical, uncontrollable issue. Therefore, perhaps the use of the Brief COPE was inadequate for this study. That is, the goal of the study was to assess individuals' coping strategies when dealing with daily hassles and typical life events and not crisis-like events. By the same token, perhaps the instructions associated to the Brief COPE should have directed participants to rate their coping mechanisms when dealing with work-related stressful events, rather than to report their rating of "coping with stress in general". This may have permitted direct comparisons between the coping mechanisms and conflict management styles associated to a particular work-related stressful situation. In other words, I hereby suggest that if the Brief COPE's instructions had directed participants to rate their stresscoping responses when they were experiencing conflict at work, significant predictions between coping strategies and conflict management styles may have been found. However, in the current study, only one of the overall equations examining the prediction

of conflict management styles by coping strategies was found to be significant. This raises the question of the mere existence of a relationship between coping mechanisms and conflict management styles. Perhaps both constructs are simply unrelated, and that individuals' way of handling interpersonal conflicts, whether in the work or home environment, is dictated by internal mechanisms such as personality, self-efficacy or self-esteem, more so than by the cognitive appraisal of the situation followed by the coping response it generates. Said differently, although conflict situations typically involve stress, the original reaction they engender may be deeply rooted in one's anima (individual's true inner self), more so than in one's cognitive processes.

Finally, hypothesis 13, which stated that coping mechanisms would mediate the relationship between personality traits and conflict management styles failed to be supported. Coping mechanisms were not shown to mediate this relationship, and this is most likely explained by the lack of relationship between coping mechanisms and conflict management styles (hypotheses 8 to 12). Indeed, I was unlikely to find support for the idea that coping mediated the relationship between personality traits and conflict management styles, since coping alone was found to significantly predict only one conflict style (while personality traits were strongly linked to conflict management styles). Again, the mediation hypothesis may have been supported had I used another coping measure, or more situation-specific instructions. However, as previously mentioned, mediation may have not been yielded because coping mechanisms and conflict management styles are simply not related.

Limitations of this Study and Future Research

A limitation of this study is that most variables were measured via self-reports, and thus the possibility cannot be ruled out that some of the relationships between

variables were inflated by common method variance. Moreover, the one measure that was not a self-report one (i.e., the organizational conflict situation question) showed to be inadequate for analysis in this study. While acknowledging the possibility that common method variance may have occurred, the variability in the magnitude of the correlations (Table 7) suggests that substantive factors were also at work. Nevertheless, using multiple methods to measure many of the variables would have strengthened the study.

Consequently, in addition to self-report measures, future research should attempt to use other assessment tools such interviews or focus groups to fully grasp the underlying mechanisms linking coping mechanisms and conflict management styles.

With this in mind, a second limitation concerns the self-report coping measure. As mentioned extensively in the previous paragraphs, the Brief COPE (Carver, 1997) might not have been suited for this study, and thus it may not have fully captured participants' coping strategies in the intended way. Therefore, future research should find a better adapted measure, while keeping in mind that it should remain relatively short (which was the main advantage of the Brief COPE). For example, Latack (1986) designed a 26-item instrument assessing coping in the workplace, whereby the following five dimensions of coping are measured: avoidance/resignation, positive thinking, direct action, help seeking and alcohol use. Specifically, Latack's measure assesses the coping strategies used by workers to manage the negative emotional consequences of stressful events. This scale was validated on a sample of managers and professionals working in a manufacturing firm and an osteopathic hospital, and its typical use is done among samples of working individuals (e.g., nurses; Wong, Leung, So, & Lam, 2001).

A third limitation is the cross-sectional design of the study. Assessing individuals' coping mechanisms may be better done in a longitudinal manner, whereby these

behaviours would be monitored regularly, and not solely on a given day. This would help understand how individuals cope with stress in general, since it would be possible to average their typical coping responses on a number of weeks or months. It would, therefore, help understand whether individuals always use a core set of coping strategies, or whether they adapt their coping strategies to the situation at hand. Research testing these two hypotheses is lacking, and it is consequently difficult to know how specifically to assess coping mechanisms (i.e., in a situational versus a dispositional manner).

There are other reasons that could explain the failure of this study to yield the hypothesized mediational effect. The suggested model linking personality traits, coping mechanisms, and conflict management styles may have been overly simplistic. Specifically, many other variables may come into play when stress, coping, and organizational conflicts are concerned. For example, the current study did not assess situational variables such as the severity of the conflict situation or the type of conflict participants were evaluating. It may well be that people's conflict management styles vary as a function of the type or severity of conflict they are involved in. In fact, within organizations, several authors have distinguished conflict processes evolving around work and task-related issues, or around socio-emotional and relationship issues (e.g., Jehn, 1995). Examples of task conflict are conflicts about the distribution of resources, about procedures and policies, and about judgments and interpretation of facts; whereas examples of relationship conflict are conflicts about personal taste, about political preferences, about values, and about interpersonal style (De Dreu et al., 2004). It could be argued that people's conflict management styles are adapted to the nature of the conflict they are facing, that is whether the conflict is task-related or relationship-related. Future research should attempt to either control for such variables (i.e., type and severity of

conflict) or ensure that they are being measured and taken into consideration in the interpretation of the results.

As previously mentioned, coping is considered to be a proximal influence in the model linking personality traits, coping mechanisms, and conflict management styles. However, other proximal influences may have an impact in this model. Namely, the organizational culture individuals evolve in. Indeed, research has shown that departments within organizations, and even entire organizations, develop a conflict culture that determines how conflict is viewed and valued, what conflict management strategies are deemed appropriate or inappropriate, and so on (De Dreu et al., 2004). Thus, there are departments/organizations in which open-minded debate and problem-solving strategies are seen as appropriate ways of managing the conflict. However, there are also departments in which conflict is seen as personal and identity-related, and in which withdrawal is deemed as an appropriate way of handling conflict. Therefore, a more complex picture of the relationship between personality, coping, and conflict could be drawn. With this in mind, it could be argued that other proximal influences such as social and economic resources may come into play. For instance, employees may adopt a specific conflict management style because they wish to fit in and do not want to be marginalized from their co-workers. Individuals may also choose to handle interpersonal conflict in a manner consistent with the corporate culture for economic reasons: they do not want to lose their job. Future research should therefore attempt to include as many potential extraneous variables in the model as possible in order to paint a complete picture of the relationship that exists between the three constructs.

Lastly, the difference between coping mechanisms and coping behaviours needs further attention. It may be that individuals report using a specific style of coping with

stressful situations, but behave in a manner inconsistent with that style. Again, this highlights the necessity for future research to use other means of assessing individuals' coping response than self-report measures. Interviews and focus groups could be useful tools in this instance because they permit the evaluation of complex phenomena and allow for the inclusion of the context, which adds a lot of richness to the data being collected.

#### Implications of this Study

The results of this study did not provide support for the idea that relationships between personality traits and conflict management styles were mediated by coping mechanisms; however, in the case of interpersonal conflict management styles, there was evidence that both personality traits and coping mechanisms uniquely predicted their use. These findings may have implications for selection purposes in the case of recruiting employees for positions known for their high conflict-related content. For example, when hiring the leader of a team known for its disputes among members, human resources (HR) specialists may decide to select an individual who will tend to use *cooperation*, and thus could target individuals who possess the personality traits and coping mechanisms most likely related to the use of *cooperation*. Therefore, according to the results found in the current study, HR specialists would opt for an open, agreeable and conscientious individual, and/or for someone who tends to cope through a problem-focused strategy.

In general, managing conflict to enhance learning and effectiveness requires the use of an integrating (i.e., *cooperation*) or problem solving style (Rahim, 2002).

Cooperation is said to be ideal in that conflict situations are tackled in a constructive, active manner. Rahim indeed argues that the use of cooperation is appropriate when issues are complex, or when a commitment is needed from all the parties in order to

achieve successful implementation. Keeping in mind that problem-focused coping was shown to predict the use of *cooperation*, the results from this study may help HR specialists decide on training needs. Specifically, coping skills have been demonstrated to be trainable (e.g., Hains & Szyjakowski, 1990; Toobert, Glasgow, Nettekoven, & Brown, 1998), and therefore, since *cooperation* is the organizational conflict management style of choice, it would be possible for employees to be trained on developing their problem-focused coping skills in order to resolve organizational conflicts in a constructive, *cooperative* manner. Said differently, the findings from this study may have implications on the identification of organizational training needs, which would in turn allow organizations to ensure that employees receive the adequate training to become effective in their conflict management.

#### **Conclusions**

The present study found further support for relationships established in previous studies, that is by Antonioni (1998), Moberg (2001) and Hooker and colleagues (1994), however, in a sample comprised of 235 working individuals. Therefore, the generalizability of the findings from this study to a larger sample of working individuals, as opposed to merely managers (i.e., Antonioni, 1998; Moberg 2001) or older adults (i.e., Hooker et al., 1994) is possible.

In sum, conflict management styles have been shown to be uniquely predicted by Big Five personality traits (i.e., neuroticism, extraversion, openness, agreeableness, and conscientiousness), and by coping mechanisms (i.e., problem-focused coping, emotion-focused coping, and disengagement). Moreover, the presence of an overall significant variance in conflict management styles when predicted by coping mechanisms suggests they may be connected. Although the current results failed to show that coping

mechanisms mediated the relationship between personality traits and conflict management styles, results did reveal that working individuals' coping mechanisms were uniquely predicting the way with which they handle the cooperation style of handling interpersonal conflicts, and this is, to my knowledge, the first study that attempted to find a connection between these two constructs among a sample of working individuals.

Lastly, an area rich in possibilities has been identified, namely that of linking personality traits, coping mechanisms, and conflict management styles. The model linking these three variables merits additional exploration and seems to have potential to play an important role in the performance management process, including selection, training, coaching, development, and employee-employer relationships.

#### References

- Antonioni, D. (1998). Relationship between the big-five personality factors and conflict management styles. *International Journal of Conflict Management*, 9, 336-355.
- Ayoko, O.B., Callan, V.J., & Hartel, C.E.J (2003). Workplace conflict, bullying and counterproductive behaviours. *International Journal of Organizational Analysis*, 11, 283-301.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Barrett, K.C., & Campos, J.J. (1991). A diacritical function approach to emotions and coping. In E. Cummings, E. Mark, & A. Greene (Eds.), *Life-span developmental psychology: Perspectives on stress and coping* (pp. 21-41). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc,
- Blake. R.R., & Mouton, J.S. (1964). The Managerial Grid. Houston, TX: Gulf.
- Blanchard-Fields, F. (1989). Controllability and adaptive coping in the elderly: An adult developmental perspective. In P.S. Fry (Ed.), *Psychological Perspectives of Helplessness and Control in the Elderly* (pp. 43-61). The Netherlands: Elsevier Science Publishers B.V.
- Bolger, N., & Zuckerman, A. (1995). A framework for studying personality in the stress process. *Journal of Personality and Social Psychology*, 69, 890-902.
- Carver, C.S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100.

- Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267-283.
- Corcoran, K.O., & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling and Development*, 78, 473-483.
- Costa, P.T., & McCrae, R.R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) professional manual. Odessa, FL:

  Psychological Assessment Resources.
- Costa, P.T., & McCrae, R.R. (1993). Ego development and trait models of personality.

  \*Psychological Inquiry, 4, 20-23.
- Diehl, M., Coyle, N., & Labouvie-Vief, G. (1996). Age and sex differences in strategies of coping and defense across the life-span. *Psychology and Aging, 11*, 127-139.
- De Dreu, C.K.W., Van Dierendonck, D., & Dijkstra, M.T.M. (2004). Conflict at work and individual well-being. *International Journal of Conflict Management*, 15, 6-26.
- Egan, V., Deary, I, & Austin, E. (2000). The NEO-FFI: Emerging British norms and an item-level analysis suggest N, A and C are more reliable than O and E.

  Personality & Individual Differences, 29, 907-920.
- Endler, N.S., & Parker, J.D.A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58, 844-854.
- Eysenck, H.J. (1967). The Biological Basis of Personality. Springfield, Ill: Thomas.
- Freud, S. (1952). *Major Works of Sigmund Freud*. Chicago, Ill: Encyclopaedia Britannica.

- Garson, G.D. (n.d.). Structural Equation Modeling. In *PA 765 Statnotes: An online textbook*. Retrieved July 25, 2005, from http://www2.chass.ncsu.edu/garson/pa765/structur.htm
- Goeders, N.E. (2003). The impact of stress on addiction. *European Neuropsychopharmacology*, 13, 435-441.
- Greenglass, E.R., & Burke, R.J. (1991). The relationship between stress and coping among Type As. *Journal of Social Behavior and Personality*, 6, 361-371.
- Hains, A.A., & Szyjakowski, M. (1990). A cognitive stress-reduction intervention program for adolescents. *Journal of Counseling Psychology*, 37, 79-84.
- Hammock, G.S., Richardson, D.R., Pilkington, C.J., & Utley, M. (1990). Measurement of conflict in social relationships. *Personality & Individual Differences*, 11, 577-583.
- Holahan, C.J., & Moos, R.H. (1987). Personal and contextual determinants of coping strategies. *Journal of Psychology and Social Psychology*, 52, 946-955.
- Holmes, T.H., & Rahe, R.H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Hooker, K., Frazier, L.D., & Monaham, D.J. (1994). Personality and coping among caregivers of spouses with dementia. *The Gerontologist*, 34, 386-392.
- Howell, D. (2002). *Mediating and moderating relationships*. Retrieved July 15, 2005, from http://www.uvm.edu/~dhowell/StatPages/Methods/MedModCorrection.pdf
- Irion, J.C., & Blanchard-Fields, F. (1987). A cross-sectional comparison of adaptive coping in adulthood. *Journal of Gerontology*, 42, 502-504.
- Isikhan, V., Comez, T., & Danis, M.Z. (2004). Job stress and coping strategies in health care professionals working with cancer patients. *European Oncology Nursing Society*, 8, 234-244.

- Jang, K.L., Livesley, W.J., & Vernon, P.A. (1996). Heritability of the big five personality dimensions and their facets: A twin study. *Journal of Personality*, 64, 577-591.
- Jehn, K. (1995). A multi-method examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256-282.
- Kwon, P., & Laurenceau, J.P. (2002). A longitudinal study of the hopelessness theory of depression: Testing the diathesis-stress model within a differential reactivity and exposure framework. *Journal of Clinical Psychology*, 58, 1305-1321.
- Latack., J.C. (1986). Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*, 71, 377-385.
- Latack, J.C., & Havlovic, S. J (1992). Coping with job stress: A conceptual evaluation framework for coping measures. *Journal of Organizational Behavior*, 13, 479-508.
- Lazarus, R.S., & Folkman, S. (1984). Stress, Appraisal, and Coping. New York: Springer.
- Lefcourt, (2001). The Humor Solution. In C.R. Snyder (Ed), *Coping with Stress*, (pp. 68-92). New York: Oxford University Press.
- Lepore, S.J. (1995). Cynicism, social support, and cardiovascular reactivity. *Health Psychology*, *14*, 210-216.
- Lippitt, G.L. (1982). Managing conflict in today's organization. *Training & Development Journal*, 36, 66-74.
- Martin, P., & Martin, M. (2002). Proximal and distal influences on development: The model of developmental adaptation. *Developmental Review*, 22, 78-96.
- McRae, R.R. (1982). Age differences in the use of coping mechanisms. *Journal of Gerontology*, 37, 454-460.

- McCrae, R.R., & Costa, P.T. (1987). Validation of the Five-Factor Model of personality across instruments and observers. *Personality & Social Psychology*, 52, 81-90.
- McCrae, R.R., & Costa, P.T (1999). A Five-Factor theory of personality. In L.A. Pervin, O.P. John (Eds.), *Handbook of Personality: Theory and Research* (2nd ed; pp. 139-153). New York NY: Guilford Press.
- McKenzie, C. (2002). Developing a CCO: Conflict Competent Organization. *New Zealand Management*, 49, 34-37.
- Moberg, P.J. (2001). Linking conflict strategy to the Five Factor Model: Theoretical and empirical foundations. *International Journal of Conflict Management*, 12, 47-68.
- Murray, H.A. (1938). Explorations in personality: A clinical and experimental study of fifty men of college age. Oxford, England: Oxford Univ. Press.
- 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, 775-813.\*\*
- Oakland, S., & Ostell, A. (1996). Measuring coping: A review and critique. *Human Relations*, 49, 133-155.
- Parkes, K.R. (1990). Coping, negative affectivity, and the work environment: Additive and interactive predictors of mental health. *Journal of Applied Psychology*, 75, 399-409.
- Phelps, S.B., & Jarvis, P.A. (1994). Coping in adolescence: Empirical evidence for a theoretically based approach to assessing coping. *Journal of Youth and Adolescence*, 23, 359-371.

- Preacher, K. J., & Leonardelli, G. J. (2001, March). Calculation for the Sobel test: An interactive calculation tool for mediation tests [Computer software]. Available from http://www.unc.edu/~preacher/sobel/sobel.htm.
- Putnam, L.L., & Willson, C. (1982). Communicative strategies in organizational conflict:

  Reliability and validity of a measurement scale. In M. Burgoon (Ed.),

  Communication Yearbook, (Vol. 6, pp. 629-652). Newbury Park, CA: Sage.
- Rahim, M.A. (1983). A measure of styles of handling conflict. Academy of Management Journal, 26, 368-376.
- Rahim, M.A. (2002). Toward a theory of managing organizational conflict. *International Journal of Conflict Management*, 13, 206-235.
- Rahim, M.A., & Bonoma, T.V. (1979). Managing organizational conflict: A model for diagnosis and intervention. *Psychology Reports*, 44, 1323-1344.
- Rahim, M.A., Antonioni, D., & Psenicka, C. (2001). A structural equations model of leader power, subordinates' styles of handling conflict, and job performance.

  International Journal of Conflict Management, 12, 191-212.
- Roth, R., & Cohen, L.J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, 41, 813-819.
- Sandal, G.M., Endresen, I.M., Vaernes, R., & Ursin, H. (1999). Personality and coping strategies during submarine missions. *Military Psychology*, 11, 381-404.
- Schwartz, J.E., Pickering, T.G., & Landsbergis, P.A. (1996). Work-related stress and blood pressure: Current theoretical models and considerations from a behavioural medicine perspective. *Journal of Occupational Health Psychology*, 1, 287-310.

- Schwepker, C.H., Jr. (1999). Research note: The relationship between ethical conflict, organizational commitment and turnover intentions in the salesforce. *Journal of Personal Selling & Sales Management*, 19, 43-49.
- Skinner, E.A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129, 216-269.
- Snyder, C.R., & Dinoff, B.L. (1999). Coping: Where have you been? In C.R. Snyder (Ed), Coping: The Psychology of What Works (pp. 3-19). New York: Oxford University Press.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4<sup>th</sup> ed.). Needham Heights, MA: Allyn & Bacon.
- Terry, D. (1994). Determinants of coping: The role of stable and situational factors.

  Journal of Personality and Social Psychology, 66, 895-910.
- Toobert, D.J., Glasgow, R.E., Nettekoven, L.A., & Brown, J.E. (1998). Behavioral and psychosocial effects of intensive lifestyle management for women with coronary heart disease. *Patient Education & Counseling*, 35, 177-188.
- Vaillant, G.E. (1977). Adaptation to Life. Boston, MA: Little, Brown & Company.
- Van de Vliert, E., & Kabanoff, B. (1990). Toward theory-based measures of conflict management. Academy of Management Journal, 33, 199-209.
- Violanti, J.M. (1992). Coping strategies among police recruits in a high stress training environment. *Journal of Social Psychology*, 132, 717-729.
- Vitaliano, P.P., Russo, J., Carr, J.E., Maiuro, R.D., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavioral Research*, 20, 3-26.

- Vollrath, M., & Torgersen, S. (2000). Personality types and coping. *Personality and Individual Differences*, 29, 367-378.
- Vollrath, M. (2001). Personality and stress. Scandinavian Journal of Personality, 42, 335-347.
- Watson, D., David, J.P., & Suls, J. (1999). Personality, affectivity, and coping. In C.R. Snyder (Ed), *Coping: The Psychology of What Works*, (pp. 119-140). New York: Oxford University Press.
- Weider-Hatfield, D. (1988). Assessing the Rahim Organizational Conflict Inventory-II (ROCI-II). *Management Communication Quarterly*, 1, 350-366.
- Wong, D., Leung, S., So, C., & Lam, D. (2001): Mental health of Chinese nurses in Hong
  Kong: The roles of nursing stresses and coping strategies. Online Journal of
  Issues in Nursing, 5, Manuscript 7. Available from
  http://www.nursingworld.org/ojin/topic12/tpc12\_7.htm.
- Yukl, G. (1994). *Leadership in Organizations*, 3rd ed. Englewood Cliffs, NJ: Prentice Hall.

Appendix C

# Comparing Mean Differences for Job Tenure -One-Way ANOVA Results

# Analysis of Variance for Job Tenure

Source	df	F	$\eta^2$	p
RELIGION	5	2.13	.05	.063
Emotion-focused	5	3.94*	.08	.002
Problem-focused	5	1.96	.04	.086
Disengagement	5	3.38*	.07	.006
Neuroticism	5	2.09	.04	.068
Extraversion	5	1.50	.03	.192
Openness	5	.382	.01	.861
Agreeableness	5	2.61*	.06	.026
Conscientiousness	5	1.79	.04	.116
Cooperation	5	1.01	.02	.415
Avoiding	5	1.24	.03	.292
Dominating	5	1.72	.04	.132
Obliging	5	.451	.01	.812

Note. \* significant F-tests. Bonferroni tests were performed on these distributions to find where the mean differences were.

## Descriptive Statistics for Emotion-Focused Coping as a function of Job Tenure

Job Tenure	M	SD
Less than one year	3.04 <sup>A</sup>	.81
1 to 2 years inclusive	2.90 <sup>AB</sup>	.60
3 to 5 years inclusive	2.71 <sup>AB</sup>	.76
6 to 7 years inclusive	2.58 <sup>AB</sup>	.67
More than 7 years	2.44 <sup>B</sup>	.72

Note. Means with the same letter in their superscripts do not differ significantly from one another according to a Bonferroni test with a .05 limit on familywise error rate.

## Descriptive Statistics for Disengagement Coping as a function of Job Tenure

Job Tenure	M	SD
Less than one year	1.88 <sup>AB</sup>	.38
1 to 2 years inclusive	1.96 <sup>A</sup>	.46
3 to 5 years inclusive	1.81 <sup>AB</sup>	.44
6 to 7 years inclusive	1.73 <sup>AB</sup>	.58
More than 7 years	1.63 <sup>B</sup>	.42

Note. Means with the same letter in their superscripts do not differ significantly from one another according to a Bonferroni test with a .05 limit on familywise error rate.

## Descriptive Statistics for Agreeableness as a function of Job Tenure

Job Tenure	М	SD
Less than one year	3.85 <sup>A</sup>	.42
1 to 2 years inclusive	3.62 <sup>A</sup>	.54
3 to 5 years inclusive	3.64 <sup>A</sup>	.51
6 to 7 years inclusive	3.61 <sup>A</sup>	.49
More than 7 years	3.74 <sup>A</sup>	.44

Note. Means with the same letter in their superscripts do not differ significantly from one another according to a Bonferroni test with a .05 limit on familywise error rate.

# Appendix D

# The Demographic Interview

1.	What is	is your gender? (Please check one)		
			Male	Female
2.	a. b. c. d.	is your age? (Please circle) Below 25 years-old 25-34 35-44 45-54 Over 54 years-old		
3.	a. b. c. d.	is your current marital status? (Please Married or living with a partner Widowed Divorced Separated Never married	circle)	
4.	Do you	u have any children? (Please answer !	YES or NO)	
5.	a. b. c.	S, how many children do you have? (I One Two Three More than three	f NO, skip to question	n 6)?
6.	What is	is your major life occupation?		
7.	a. b. c. d.	ong have you been holding this positi Less than 1 year More than 1 year, but less than 3 ye More than 3 years, but less than 5 y More than 5 years, but less than 7 y More than 7 years	ars ears	
8.	Is it a r	managerial position? (Please answer	YES or NO)	-
9.		answered YES to the previous question to question 10)?	on, how many emplo	yees report to you? (If
		11-25 26-50 51-75		

10. What is	s the highest level of education you <u>completed?</u> (Please circle)
a.	Did not finish high school
b.	High school
c.	Trade school
d.	Some university training but no diploma
e.	Bachelor's degree
f.	Master's degree
g.	Ph.D. degree
h.	Other. Please specify
a. b. c. d.	ch of the following ethnic group(s) do you belong? (Please circle all that apply) Caucasian/White African Canadian/Bahamian/Black Asian Arab Other. Please specify
	indicate in which of the following groups you consider your <u>family income</u> to be:
a.	Less than \$30,000/year

b. \$30,000 to \$50,000/year

c. \$50,000 to \$100,000/yeard. More than \$100,000/year

## Appendix E

# **Organizational Conflict Situation Question**

# Managing Organizational Conflicts

# (Please complete directly on this sheet)

Please answer the following questions that pertain to a conflict situation you have experienced at work with a colleague or supervisor. When answering the questions, please be as detailed as possible. If you require more space than the one provided here, you can use an extra sheet or write on the back of this one. In this case, please make sure to label the question.

	1.	Please describe the situation:
	-	
	2.	Please describe your thought process and reasoning (i.e., what was going through your mind at the time of the conflict?):
	-	
_	3.	Please describe your behaviour (i.e., how did you react?):
_		
_		
	4.	Please describe the outcome/result of the conflict:
_		
_		

## Appendix F

# **Open-Ended Question Coding Scheme**

#### [1] FIVE-STYLE CODING SCHEME

According to Rahim (1983), there are 5 styles of handling interpersonal conflict: *Integrating, Obliging, Dominating, Avoiding, and Compromising.* 

Here are the definitions of these 5 styles of handling interpersonal conflict:

Integrating (high concern for both self and others): it seeks to use a problem-solving strategy to confront differences directly; it involves openness, exchange of information, and examination of differences to reach an effective solution acceptable to both parties. This approach is ideal in that conflict situations are tackled in a constructive, creative, and active manner.

#### Examples of such behaviour:

- person tries to investigate the issue with the other person to find an acceptable solution to both of them.
- person exchange accurate information with the other person to solve the problem together.
- person brings all his/her concerns out in the open so that the issue can be resolved in the best possible way.

#### Typical quotes:

"At the time, I wanted to calm him down and somehow resolve or at least help him out with the situation. I spoke with him and offered to pull some other workers into the kitchen to help him with the more menial tasks."

"I wanted to speak with my colleague rather than leave resentful feelings build. I went into the conversation calmly, and I told her that I appreciated working with her. However, I had noticed that lately she was not pulling her weight, being absent more often and taking longer lunch hours. So I inquired if perhaps there was a reason for her absences, let her explain and got my point across."

2. Obliging (low concern for self and a high concern for others): it is associated with attempting to play down the differences and emphasizing commonalities to satisfy the concern of the other party, i.e., individuals put their own concerns aside to satisfy the concerns of the other party.

#### Examples of such behaviour:

- person generally tries to satisfy the needs of his/her supervisor (or of a co-worker).
- person usually accommodates the wishes of his/her supervisor (or co-worker).
- person allows concessions to his/her supervisor (or co-worker).
- person goes along the suggestions of his/her supervisor (or co-worker).

#### Typical quote:

"One of the staff was always coming to work late. Every time he was late, he was providing me very reasonable reasons, so I had to forgive him."

3. **Dominating** (high concern for self and low concern for others): it has been identified with win-lose orientation; it implies imposing one's view at the expense of other individuals and forcing behaviour to win one's position.

#### Examples of such behaviour:

- person uses his/her influence to get ideas accepted.
- person uses his/her authority to make a decision in his/her favour.
- person uses his/her expertise to make a decision in his/her favour.
- person is firm in pursuing his/her side of the issue.
- person uses his/her power to win a competitive situation.

#### Typical quotes:

"Nothing had been done, so I needed to take things into my own hands. She was doing damage to the organization, so I called our confidential ethics line and reported her for 2 situations".

"My supervisor talked with me and gave me some bad comment on my working attitude. But I thought I was the most diligent people in our department and did most of the work. I thought he was totally wrong. So I just told him my ideas directly."

4. <u>Avoiding</u> (low concern for self and others): it has been associated with withdrawal, buck-passing, or side stripping situations, i.e., individuals or parties withdraw from the conflict situation altogether.

#### Examples of such behaviour:

- person attempts to avoid being "put on the spot" and tries to keep the conflict to him/herself.
- person avoids open discussion of his/her differences with the other person (supervisor or colleague).
- person tries to stay away from disagreement with the other person.
- person avoids encounters with the other person.
- person tries to avoid unpleasant exchanges with the other person.

#### Typical quotes:

"I let the comments roll off my back and tried to ignore them."

"During the completion of the project, I avoided my team leader and chose to work independently except for staff meetings."

5. <u>Compromising</u> (intermediate in concern for self and others): it implies that conflicting parties work together to find a middle ground solution; give-and-take whereby both parties give up something to make a mutually acceptable decision.

## Examples of such behaviour:

- person tries to find a middle course to resolve the impasse.
- person negotiates with other person so that a compromise can be reached.

## Typical quotes:

"I wanted to help resolve the situation. So I sat down with the 2 employees separately and then together in order to seek common ground."

"I explained my situation to my colleague and said that I would do my part of the work ASAP so that she could finish her job (after I am done with mine)."

#### Example of not rateable:

"Had a conflict with a co-worker. He became too bossy and quite loud. He was not the boss. Conflict was not resolved."

## [1] FIVE-STYLE CODING SCHEME

Participant #	Partic	ipant	#	
---------------	--------	-------	---	--

Please use the following scale to evaluate the answer to the PBDI question (i.e., open-ended conflict question). Please check the cell that corresponds to your rating:

	0	1-2	3-4	5	66	99
Integrating						
Obliging						
Dominating						
Avoiding						
Compromising						

#### Whereby:

- 0 = did not mention this style. Represents 0% of the style used by that person.
- 1 2 = provided a hint / slightly mentioned this style. Bottom third, i.e., 1% to 33%.
- 3-4 = provided 1 clear mention of this style and made some allusions to it elsewhere in the text. Middle third, i.e., 34% 66%.
- 5 =at least 2 mentions of this style were provided in the text. Top third, i.e., 67% 100%.
- 66 = missing data (i.e., participant did not write down anything).
- 99 = not rateable (e.g., impossible to read hand writing, or text is incoherent).

Here is an example:

	0	1-2	3-4	5	66	99
Integrating		1	/			
Obliging		<b>V</b>				
Dominating	✓					
Avoiding		7				
Compromising				1		

# [2] EFFECTIVENESS RATING

# Styles of handling interpersonal conflict and the situations where they are appropriate or inappropriate.

Conflict style	Situations where appropriate	Situations where inappropriate
INTEGRATING	<ul> <li>Issues are complex.</li> <li>Synthesis of ideas is needed to come up with better solutions.</li> <li>Commitment is needed from other parties for successful implementation.</li> <li>Time is available for problem-solving.</li> <li>One party alone cannot solve the problem.</li> <li>Resources possessed by different parties are needed to solve their common problems.</li> </ul>	<ul> <li>Task or problem is simple.</li> <li>Immediate decision is required.</li> <li>Other parties are unconcerned about outcomes.</li> <li>Other parties do not have problem-solving skills.</li> </ul>
OBLIGING	<ul> <li>You believe that you may be wrong.</li> <li>Issue is more important to the other party.</li> <li>You are willing to give up something in exchange for something from the other party in the future.</li> <li>You are dealing from a position of weakness.</li> <li>Preserving relationship is important.</li> </ul>	<ul> <li>Issue is important to you.</li> <li>You believe that you are right.</li> <li>The other party is wrong or unethical.</li> </ul>
DOMINATING	<ul> <li>Issue is trivial.</li> <li>Speedy decision is needed.</li> <li>Unpopular course of action is implemented.</li> <li>Necessary to overcome assertive subordinates.</li> <li>Unfavourable decision by the other party may be costly to you.</li> <li>Subordinates lack expertise to make technical decisions.</li> <li>Issue is important to you.</li> </ul>	<ul> <li>Issue is complex.</li> <li>Issue is not important to you.</li> <li>Both parties are equally powerful.</li> <li>Decision does not have to be made quickly.</li> <li>Subordinates possess high degree of competence.</li> </ul>
AVOIDING	<ul> <li>Issue is trivial.</li> <li>Potential dysfunctional effect of confronting the other party outweighs benefits of resolution.</li> <li>Cooling off period is needed.</li> </ul>	<ul> <li>Issue is important to you.</li> <li>It is your responsibility to make decision.</li> <li>Parties are unwilling to defer, issue must be resolved.</li> <li>Prompt attention is needed.</li> </ul>
COMPROMISING	<ul> <li>Goals of parties are mutually exclusive.</li> <li>Parties are equally powerful.</li> <li>Consensus cannot be reached.</li> <li>Integrating or dominating style is not successful.</li> <li>Temporary solution to a complex problem is needed.</li> </ul>	<ul> <li>One party is more powerful.</li> <li>Problem is complex enough needing problem-solving approach.</li> </ul>

#### [2] PBDI – EFFECTIVENESS RATING

<b>Partici</b>	pant :	#	
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Please use the grid above to evaluate whether the participant's <u>dominant conflict style</u> (i.e., the style mostly used by the participant) has been used effectively. If there are 2 dominant styles, please rate them both separately.

Please use the following anchors and circle the corresponding number:

0 = not applicable, i.e., in the case of missing data or not rateable data.

1 = Ineffective - Participant used conflict style in an inappropriate manner/situation, i.e., wrong conflict style for the situation at hand.

For example, using Integrating when the problem is simple is Ineffective.

- 2 = Somewhat effective Participant used a little of both (inappropriate and appropriate) ways to deal with the conflict.
- 3 = Effective Participant dealt with the conflict in appropriate manner, i.e., proper use of the conflict style for the situation at hand.

For example, using *Dominating* when a speedy decision is needed is Effective.

## Appendix G

# **Study Instructions**

# (Please read carefully before beginning)

You will be asked to complete a packet containing one open-ended question, three surveys, and one demographic information form. Please complete the open-ended question (i.e., sheet labelled [1]) in the space provided on the sheet. Please complete the three surveys (labelled [2], [3], and [4]) on the <u>bubble sheet</u> enclosed with this packet in the envelope. Finally, please complete the demographic information form (labelled [5]) directly on the sheet.

#### To summarize:

- Open-ended question [1] = directly on the sheet
- Multiple choice surveys [2], [3], [4] = on the bubble sheet
- Demographic information form [5] = directly on the sheet

When using the bubble sheet, please, make sure to use a <u>lead pencil</u> (HB type) and to completely fill in the circle corresponding to your answer. You will notice that each circle has a letter and a number above and below. To write down your answer, fill-in the circle corresponding to the question number. If you take a look at the bubble sheet, you will see that your participant number is already filled in. This can is an example of the proper use of the bubble sheet. You <u>DO NOT</u> need to provide your name or student ID number on the bubble sheet as your answers are strictly <u>confidential</u>. Please note that the consent form will be separated from your survey packet as soon as the researcher opens the envelope.

Also, please make sure to complete the forms in the order they have been placed in the packet. The entire testing session will take approximately 35 minutes of your time. Your participation in this study is voluntary and you may refuse to answer questions or choose to withdraw your participation at any time. You will have a chance of winning one of two cash prizes of \$250, if you decide to take part in our draws.

You may start now, but first, please make sure to read the instructions accompanying each form.