

The Resentful Embittered Personality, Adjustment, and Depression
In Student and Marital Relationships

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Abstract

Hostility and anger have long been shown to be predictive of negative psychological, interpersonal and physical outcomes. Much of the literature, has focused on hostility as a state rather than a personality trait and has not attempted to explicate the link between embittered personality and depression. To achieve these goals, a newly created measure called the Resentful Embittered Personality Scale (REPS) was evaluated in detail. First, the literature examining the construct of embitterment and hostility was reviewed, its links with depression was explained, and unpublished pilot data were reviewed. Next, the psychometric properties, convergent and divergent validity, and reliability of the REPS were evaluated in the first study by exploring correlations with the NEO-FFI and other specific personality constructs and measures of hostility and distress. The second study evaluated the REPS with the larger measure of general personality, the NEO-PI-R, to further understand the nuances of these relationships between the REPS and the specific facets from the Big Five measure of personality. The focus of the third study was to examine the REPS with respect to both well-being and distress along with measures of stress. Finally, the fourth study examined the predictive validity of the REPS with respect to dyadic adjustment and depression six months later, after the birth of their first child. Results showed that the REPS was a valid and reliable measure and that the construct's associations with certain factors of the NEO-PI R suggested that it reflected a highly ego-defensive and interpersonally sensitive personality style that likely functioned to set up a self-fulfilling prophecy of expected and elicited interpersonally conflictual exchanges. Multiple hierarchical regression analyses found that the REPS predicted both main and interactive effects of psychological distress and well-being over and above other personality and stress measures. Finally, embittered personality predicted poorer dyadic adjustment and depression for both male and female heterosexual couples three months after the birth of their first child. Together these results lent support to the interpersonal and negative affectivity theories of depression and have shown the REPS

to be a valid, reliable and useful personality measure for personality, interpersonal and clinical purposes.

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The Resentful Embittered Personality, Adjustment, and Depression in Student and Marital Relationships

Introduction

Most authors, in writing about the nature of depression, acknowledge that biology plays a central role in many forms of depression. They also recognize that the causal factors involved in depression are complex and that the nature of depression itself is quite heterogeneous because of it. Indeed, even in depressions where biological vulnerability factors are well-established, psychological, and social factors may determine whether an episode actually occurs, as well as its course and outcome (Coyne, 1985). One such area, which has not been explored extensively, is the empirical and theoretical relationship between embitterment and depression. In his book, Disorders of Personality (3rd edition; 2011) Millon describes a personality style that reflects a spectrum involving being discontented, resentful and negativistic (referred to as the DRN spectrum). Those with DRN spectrum display an intense and deep rooted ambivalence towards themselves and others, likely established by early parental messages of disapproval or otherwise unpredictable feedback from parental figures. He continues to describe these negativistic personalities as characterized by words such as “contrariness”, “irritable”, “discontented”, “fault-finding”, “pessimistic” “notably, portraying themselves as being cheated, misunderstood, or unappreciated”. Not only do these people with DRN spectrum negatively affect those around them, but they also tend to be quite unhappy, and prone to a number of psychological problems including depression and anxiety, even though others may only see them as irritable and cantankerous.

One of the goals of the current work was to evaluate the possibility that there was a *resentful embittered personality style* that contributed directly to the link between hostility and depression. In addition to summarizing the existing literature on the roles of hostility and anger

and its relationships with depression and other psychosocial outcomes, this dissertation contains description of a new measure developed to evaluate the resentful and hostile orientation implicated in susceptibility to depression. This new measure is known as the Resentful Embittered Personality Scale (REPS; Flett, 1995). A related goal was to test various forms of validity and reliability of the REPS by examining its relationship to a number of other measures of personality as well as psychological and interpersonal distress. A final goal was to evaluate the predictive validity of the REPS among married couples before and three months after the birth of their first child. First, however, it is useful to review some of the literature that is pertinent to the variables that will be researched.

Depression and Hostility

Historically, the emotions of anger and hostility have been of interest to some psychological theorists and researchers. In fact, for many psychoanalytic theorists (e.g., Abraham, 1911; Freud, 1917) repressed anger was thought to be at the very core of depression. Abraham (1911) wrote, "In every one of these cases it could be discovered that the disease proceeded from an attitude of hate which was paralyzing the patient's capacity to love". According to Abraham, the depressive's basic attitude is, "I cannot love people; I have to hate them". This is repressed and projected outward as "People do not love me, they hate me... because of my inborn defects. Therefore, I am unhappy and depressed". Similarly, Freud (1917) noted that often, behind the self-criticisms of the depressed person, lies statements that are less reflective of themselves than they are of someone they love. Hostility that cannot be directly expressed to the love object is transferred to the portion of the ego that is identified with it, and is reflected in the loss of self-esteem and self-criticism (as cited in Coyne, 1985).

Closely related to hostility is the concept of embitterment. The famous Greek philosopher, Aristotle was one of the first to describe the complexities that maintain a state of embitterment, which may on one hand lead to hostility, and on the other hand to depression and social isolation.

“Embittered are those who can not be reconciled, who keep their rancour, they hold their arousal in themselves, not coming to rest unless revenge has come. Revenge reduces arousal and changes pain into contentment. Does this not happen, then the pressure grows. As the internal turmoil does not open itself to others, nobody can counsel and help. It needs time to overcome internal arousal. Those persons are a burden to themselves and their dearest friends.”
(Aristoteles, *Nicomachian Ethics*)(Rackham, 1934)

Several contemporary authors have noted that hostility and depression are very often closely linked and one possible explanation is that the personality trait of resentful embitterment may account for these two reactions to sometimes occur together. Several authors have shown evidence that outwardly directed anger or hostility is empirically associated with depression (e.g., Akiskal, Bitar, Puzantian, Rosenthal, & Walker, 1978; Akiskal, 1989; Brown & Zeichner, 1989; Coyne, 1985; Finman & Berkowitz, 1989; Goldman & Haaga, 1995; Kahn, Coyne, & Margolin, 1985; Morino, Fuhrman & Selby, 1993; Scheier & Bridges, 1995; Weissman, Klerman & Paykel, 1971), however, few studies have explored this relationship in an explicit or comprehensive way. Using a clinical sample of depressed patients, Akiskal et al. (1978) reported that about 25% of the sample could be described as manipulative, hostile and unstable. Several studies have shown correlations between these two aspects of distress (e.g., Akiskal et al., 1978; Blumberg & Izard, 1985; Goldman & Haaga, 1995; Moreno, Fuhrman & Selby, 1993; Pope, Smith & Rhodewalt, 1990; Renouf, 1990; Weltzer, Kahn, Cahn, van Praag, & Annis, 1990). Atlas, Fassett and Peterson (1994) explored the relationship between sensitivity to criticism and attributional style in predicting depression. These authors found that the best predictors of depressive symptoms were the experience of anger and a tendency to not confront the critic, suggesting that sensitivity to criticism may be related to the development of depressive

symptoms through the mediation of a pattern of emotional arousal and behavioral passivity. In the same vein, Painuly, Sharan and Matoo (2005) suggested that anger attacks, for some people, may be best conceptualized as a specific subtype of depression, and aptly named this subtype “depression, with anger attacks”.

Yet there have been other studies that focused on the relationship between hostility and depression but failed to find much support for it. For example, Berkowitz (1983) explored the notion of aversively-stimulated aggression, suggesting that the negative affect arising from aversive events activates both fight and flight tendencies which include an instigation to aggression. Finman and Berkowitz (1989) claimed that there has been mild support for this hypothesis in finding that mild depressive mood activated angry feelings in participants. Not much else has been provided in the way of support for this theory, however.

Hostility and depression has also been explained in terms of a more general trait known as "negative affectivity" that contributes to adjustment problems (e.g., Clark & Watson, 1991). These authors believe that the link between hostility and depression is simply a general reflection of the tendency for certain individuals to experience various forms of negative affect when they are distressed. Anxiety and frustration often come out as forms of aggressiveness and can be thought of as intervening variables between depression and anger.

A further theoretical interpretation of the link between hostility and depression can be explained using interpersonal theories of depression (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971). These theorists see the depressed person as eliciting hostile and even cruel responses from others resulting from their tendency to make others feel guilty and responsible. Others do not view these depressed people as likeable, and, in turn, their depression is maintained because of the (accurate) negative feedback they receive from their social environment.

More recently, Znoj (2008) operationalized the concept of embitterment by using the Bern Embitterment Inventory which is an 18-item scale tapping four related factors including emotional embitterment, performance-related embitterment, pessimism/hopelessness, and misanthropy/aggression. Internal consistencies of these subscales ranged from .85 to .65 with acceptable 4-week test-retest reliability. Aside from the initial German validation study reporting its psychometric properties, little has been done to test it out in the real world, or to compare its validity in the North America or other English speaking countries. Moreover, Bern's conceptualization of embitterment tends to emphasize the outward expression of embitterment in the form of anger, disdain, hatred and disappointment, and much less on hopelessness or depressive aspects to this construct (Linden, Baumann, Rotter, & Schippan, 2007).

In summary, there has been a substantial history of theoretical grappling that has underscored the conceptual overlap between hostility and depression. In addition, there has been some, though not robust, empirical support for the association between hostility and depression. What remains less clear from the literature is the empirical validation of the theoretical links between these two concepts. One of the possible theoretical links that was empirically explored in this group of studies was that an embittered personality style may serve to explain why there is a closer link between hostility and depression, in some more than in others. The nature of personal and interpersonal problems that result and serve to maintain this trait vulnerability factor was also explored and explicated.

Resentful Embittered Personality

While these theories may account for some aspects of hostility and depression, another possibility is that there is a *personality style* that contributes directly to the link between hostility and depression. It should be emphasized that the “resentful embittered personality” construct that is being proposed for investigation in this paper is best thought of as an enduring personality

trait that is believed to confer vulnerability to experience distress as manifested in affect, behavior, cognition, and interpersonal domains. In line with the potential negative affective consequences of the embittered personality construct, some authors have indicated that there are enough differences among depressed persons to warrant some form of subtyping (e.g., Coyne, 1985). The premise of the current study is that some people are prone to depression and related interpersonal problems because they are characterized by a “resentful embittered” personality structure. This personality style involves a tendency to be disagreeable, irritable, self-pitying, and resentful which may be due to an established personal history of being mistreated. These individuals may also tend to feel that they are a constant target for mistreatment and criticism, and may internalize this negative social feedback, which, in turn, promotes a sense of despair about possible deficits in the self, and may simultaneously create a sense of social injustice for being (perceived as) a target for what is seen as other people’s issues. This personality style is believed to be associated jointly with depression and with anger/hostility, and may or may not be a result of perceived or actual exposure to hostile parenting. It is believed that these learned expectancies and models of the self and the interpersonal world helps to set up the foundation for the development of the resentful embittered personality. In summary, it is proposed that embitterment can be seen as a result of habitual perceptions of interpersonal injustice, which causes two sets of competing emotional motivations including both resignation or depressive tendencies as well as (internalized) anger. The dynamic interplay between depression and anger that tends to occur with embittered individuals may be partially explained by competing attributional explanations for the perceived social slights directed against them by others. At times those with embittered personality may be certain that such social injustices are not due to their own failures as it may be seen in depression, but rather is attributed to other people’s problems, or malicious intentions. The quality of depression among those with resentful

embittered personality may be partially explained by several processes, one being resignation or a type of learned-helplessness (Seligman, Weiss, Weinraub, & Schulman, 1980) that sets up the expectation that others will harm or reject you if given a chance, and there is nothing you can do about it besides take the punishments. The other possibility to explain the depression link with embittered personality is that there may be some nagging doubts that there may be a real personal defect in the self that causes others to act negatively towards them, though they may not be able to pinpoint what that may be, and hence there may be a sense of being different from others and unacceptable to others, making the hopes of having a stable relationship, dim at best. Moreover, some individuals may even blame themselves at times, for not having been able to prevent the negative social outcomes or to properly identify or modify the self-defects that may be eliciting these perceived interpersonal attacks. While at other times, this resentment, may lead to periods of directly or indirectly expressed hostility towards others for undeserved mistreatment. In some sense, embitterment expressed as hostility, may be a way of securing one's self-esteem by attributing blame and deserved punishment onto others in defense of the self.

Clinically, the exploration of the link between similar personality traits and distress has been expressed indirectly in that the expression and resolution of anger has traditionally been a critical part of the treatment of depression (see Mohr, et al., 1991; Novaco, 1978). Other indirect evidence can be found in the areas of alcoholism, marital, and family therapy where anger and depression often create difficulties in family adjustment (e.g., Akiskal, 1990; Goldman & Haaga, 1995). Akiskal (1989) described a depressive, hyperthymic and an irritable temperament. These irritable individuals are described as depressed, choleric, high degree of emotional response intensity, impulsive, preoccupied with negative outcomes, hypercritical and complaining. Akiskal (1990) later discussed "character-spectrum disorders" to designate a mix of antisocial,

histrionic and dependent traits superimposed by mild depressive episodes that lacked melancholic features. Other associated characteristics included drug and alcohol abuse as well as personality disorder but with no affective illness; it is best described as a life-long dysphoric condition developing in the context of an early unstable familial environment and representing a variant of the histrionic-antisocial.

A resentful and bitter depressive orientation can result from a variety of developmental pathways, but most likely there is perceived or actual early childhood adversity that promotes a sense of being treated unfairly and along with a sense of not being able to do anything about it or not being able to make up for this adversities. Adversity may come in the form of parental neglect and indifference, lack of acceptance from significant or intrusive and possibly harsh overcontrol. Overcontrol can come in the form of psychological control that is chronic and leads to equally chronic feelings of resentment, anger/hostility, and sadness. The type of situation that could be involved was illustrated in a recent insightful qualitative analysis of 16 young Asian American women who engaged in self-harm behaviours or attempted suicide (Hahm, Gonyea, Chiao, & Koritsanszky, 2014). These distressed young women developed profound resentment and anger that stemmed from parental harshness, being burdened and invalidated, and being required to live up to an unrealistic image according to what the authors referred to as “perfect Asian women syndrome” (p. 63). They felt trapped by expectations to live up to an image that they simultaneously wanted to reject and dispute but also wanting to or feeling a need to live up to this image.

The tendency to become depressed in such circumstances reflects the degree to which harsh treatment and negative feedback is incorporated into a negative self-view. The association between the self-concept and the ways we are treated by others was shown in an early study of the effects of parental criticism. This investigation with 883 high school students showed that

the degree to which they were criticized for 18 behaviors had a substantial impact; specifically, the more widespread and frequent the criticism, the greater the feeling of unacceptability and the more it contributed to a negative self-image (see Harris & Howard, 1984). The authors of this study also pointed to a pathway for establishing chronic resentment and anger. Specifically, Harris and Howard (1984) observed that “Not the least of the tribulations of the adolescent is that of being the recipient of parental criticism. Whether or not the criticism is deserved, whether or not it is intended as constructive, the teenager – insecure enough about an emerging sense of identity—tends to take criticism as a vote of “no confidence” and to react with an admixture of resentment and depression. This reaction in many cases may be transitory, but in some instances it make be chronic and productive of emotional disturbance.” (p. 113).

Theoretical and Anecdotal Background of the Resentful Embittered Personality in Depression

A good description of how an embittered interpersonal style creates and maintains depression and other symptoms of distress can be observed in clinical or therapeutic samples and has been well described in the therapeutic literature. An excerpt from a clinical case study recorded by Liu (2007) aids in capturing the nuances and difficulties posed by such a personality style

“In his initial interview, TC manifested dramatically negative interpersonal behaviors, such as eye-rolling, sneering, sarcasm, and avoidance of eye contact. I viewed these problematic in-session behaviors as a sample of the problem behaviors that brought TC into therapy in the first place. His depression signaled the presence of a generally dysfunctional interpersonal context. In fact, TC’s negative cognitions were likely to be reflective of interpersonal realities:

Other people might in fact find him to be unpleasant and not accept him. Having learned that feeling angry would likely lead to rejection, TC had difficulty experiencing and expressing anger directly. The classic irony in TC’s maladaptive, cognitive-interpersonal cycle is that it was perpetuated and maintained by his own attempt to deal with the problem.

Thus, expecting others to be hostile, TC would end up eliciting hostility by his attempt to deal with the expected hostility. The nonverbal level of communication seemed to further

complicate the situation. TC consistently interacted with people with a cynical look and a sneer, which led others to react with annoyance and irritation. These negative feelings leaked through into their interaction with TC, and contributed to TC's feeling even more resentful. Thus TC showed more resentment in his communication, which others, then, interpreted as extremely alienating and aggravating.

TC seemed to believe that if he let people see his anger they would reject him, and that if they saw his pain and vulnerability, they would be repulsed. Therefore, TC hid his true feelings. His cynicism and sarcasm definitely protected him, but also alienated him from people and kept him isolated. TC appeared to experience triumphant feelings when he – through his sneering and cynicism – put others down and maintained his dignity. Nevertheless, the cost was quite high: He had no choice but to endure the pain of social alienation”.

Existing literature has described personality styles related to hostility and depression.

Horney (1945), for example, described three neurotic orientations including moving towards, moving away and moving against others. According to Horney, one form of expression of neuroticism is the hostile moving against others that reflects an embittered tendency maintained by a deep sense of personal hopelessness. Manifestations of these neurotic hostile tendencies include the desire for power, achievement, recognition, and even perfectionism (Flett, 2007).

Horney (1945) suggested that basic hostility is felt toward parents who are punitive or unresponsive, but this hostility often must be suppressed and cannot be expressed, consequently, embitterment and resentment may set in. Several others have discussed a depressive style rooted in perceived mistreatment. Arieti and Bemporad (1980) described the “dominant other”, and “dominant goal” as well as a third “chronic futility/hopelessness” individual who can be described as having a concern over feeling exploited, rejected, and is high in pettiness and criticism of others. Using cluster analysis, studies have been done which identify depressives who are characterized jointly by hostility and depression (Blashfield & Morey, 1979). Blashfield and Morey (1979) used cluster analysis to review a number of studies to create classifications for depression. From their analyses, four out of the eleven studies evidenced a hostile-depression cluster among non-psychotic forms of depression. Also, previous research has described depressives characterized primarily by hostility (Blashfield & Morey, 1979; Lorr, Pokorny, &

Klett, 1973; Overall, Hollister, Johnson, & Pennington, 1966; Paykell, 1971; World Health Organization, 1983).

Probably the most direct source of empirical support for the embittered personality can be obtained from Hokanson and Butler (1992). These authors found two groups of depressed college students based on cluster analysis of an interpersonal checklist. One group was called the “*friendly depressed*” group who were described as dependent and anacletic. The second group was described as “*aggressive depressed*”. The “aggressive depressed” group was described as autocratic, exploitative, aggressive, distrustful. Also, the course of depression was different for the two groups. The authors of the study drew an analogy between these subtypes and depressive personalities proposed by three other theorists. For example, the dependent subgroup was likened to Beck’s (1983) sociotropic class, Blatt’s (1974) anacletic character, and Arieti and Bemporad’s (1980) dominant-other type. Meanwhile the aggressive-type was compared to Beck’s (1983) autonomy class, Blatt’s (1974) introjective character, and Arieti and Bemporad’s (1980) dominant-goal type. In general, the common threads within these two clusters of depressed participants is that the aggressive types tend to have high achievement-related concerns and need for autonomy and control whereas the dependent types tend to be more concerned with social deprivation and loss.

Flett and his colleagues have provided additional insight into the nature of the embittered personality through their research on perfectionism. In particular, the dimension of socially prescribed perfectionism was found to have tapped individuals who tend to experience distress such as anger and depression because they perceive that other people are imposing unfair demands for perfection on them. Indirect evidence of this view comes from Hewitt, Flett, and Turnbull (1994) who compared levels of socially prescribed perfectionism in 13 patients diagnosed with Borderline Personality Disorder, 13 schizophrenics, and 13 normal control

participants. Using their measure of perfectionism (i.e., Multidimensional Perfectionism Scale; MPS), it was found that the group of people with borderline personality disorder had much higher levels of socially prescribed perfectionism as compared to the other groups. This personality disorder is known for being linked with intense bouts of anger and rage.

More direct evidence was obtained from research with 91 students (Hewitt & Flett, 1991, Study 4) in which the students who scored high on socially prescribed perfectionism, also showed higher levels of self-reported anger, as measured by the Multidimensional Anger Inventory (Siegel, 1986). A fairly large correlation was found ($r = .44$) between these two measures. Similarly, Dunkley, Blankstein, and Flett (1995) found more significant correlations among socially prescribed perfectionism, state anger ($r = .24$) and trait anger ($r = .35$) as measured by the Spielberger State-Trait Anger Inventory. In addition, high correlations between depression and state anger ($r=.55$) and socially prescribed perfectionism ($r=.32$) were found.

The empirical observations from the above studies and clinical descriptions of people characterized by resentment, anger, and depression provide several useful insights about the construct that is the subject of the current work. First and foremost, while there is clearly a negative orientation toward other people, chronic exposure to perceived mistreatment or actual mistreatment is bound to result in a highly negative self-view as those who are repeatedly mistreated are left to wonder what it is about themselves that warrants such treatment. If examined from an attributional perspective, individuals high in this personality style should have a complex attributional pattern for negative outcomes that involves both other people and the self.

The empirical and clinical descriptions also point to developmental precursors of this personality orientation. For instance, it is likely that this mixed hostile and depressive orientation is partially a product of deficient relationships with early caregivers that result in an

insecure attachment styles. Indeed, a subset of people with this personality orientation could develop the insecure attachment style known as dismissive attachment (Bartholomew & Horowitz, 1991). This style has been described as having a negative model of both the self and other people. Accordingly, one of the goals of the current work was to begin to explore possible developmental antecedents by including relevant measures of attachment style.

Health and Hostility

There has been considerable research pointing to the negative health implications related to hostility and aggression (e.g., Carmody, Crossen, & Wens, 1989; Jorgensen & Kolodziej, 2007; Vella & Friedman, 2007). This line of research was most active initially in the area of exploring the health risks related to the Type A personality (Gallo & Matthews, 2003; Kubzansky & Kawachi, 2000; Surtees et al., 2005). Lawler, Schmeid, Armstead, and Lacy (1991) found that Type A individuals who also had high desires for control were more likely to have significantly elevated heart rates and were at much higher risk to develop cardiovascular health problems as compared to those without specific hostility related features of Type A personality. Smith and Spiro (2002) conducted a review from lab and naturalistic ambulatory studies and concluded that those high in trait hostility responded to interpersonal stress with higher blood pressure, heart rate and neuroendocrine activation as compared to those with lower trait hostility. Similarly, in a meta-analytic review of 45 studies on the links between hostility and physical health, Miller et al. (1996) found trait hostility to be the most significant predictor of mortality, and it was specifically predictive of coronary heart disease.

More recent interest has been shown in the link between health and a related hostile personality trait called the Type D personality. Pederson and Denollet (2003) for example reviewed the literature to make a case for a personality trait focused on the distressed personality. The Type D personality describes people who experience increased negative emotions but who

also inhibit the expression of their emotions in social situations. These authors showed that there is an accumulating body of evidence underscoring the fact that individuals who score highly on Type D personality are at increased risk of cardiovascular mortality and morbidity as well as other psychosocial difficulties including quality of life, psychological distress, and interpersonal problems. It is believed that the resentful embittered personality construct taps similar personality characteristics as these; however, it also emphasizes the psychosocial and interpersonal sequelae of not expressing psychological distress. In addition, the resentful embittered personality alludes to the etiological underpinnings of this distress as being related to perceptions and beliefs that others are identified with the source of their distress and related personal vulnerability to being the target of interpersonal difficulties.

Development of the Resentful Embitterment Personality Scale (REPS)

The purpose of the development of this new personality measure was to try to capture the main themes highlighted above thought to be important to the link between hostility and depression (Flett, 1995). As such, the scale was originally created to tap resentment, feeling singled out for mistreatment, a tendency to project blame on to others, and self-pity. This scale was originally called the Oppositional Personality Questionnaire because measures of hostility and anger did not seem to capture the main themes that were viewed as central to the link between hostility and depression (i.e., resentment, a sense of being singled out for mistreatment, self-pity, and a tendency to project blame on to others). The initial steps in developing a measure of a psychological construct involves the explication of the construct in question, rational generation of a large pool of items, and selection of the best items according to exacting criteria (see Jackson, 1970; Watson & Clark, 1995). Through a construct validation approach, a large pool of items was generated by several graduate students, and items were removed for

redundancy and clarity. A subset of 50 items were then administered to a pilot sample of 69 third-year university students, who indicated their agreement with each item on a 7-point Likert scale. These students also completed the impression management subscale of the Balanced Inventory for Desirable Responding (BIDR; Paulhus, 1991), and the CES-D Depression Scale (Radloff, 1977). The impression management subscale was included in order to remove items that were contaminated with a socially desirable bias. The scale was further refined on the basis of analyses of item frequencies, item-total correlations, and correlations with the BIDR. After these statistical procedures were performed, a 26-item measure was derived, which was modestly correlated with the impression management subscale of the Balanced Inventory for Desirable Responding ($r=.25$, $p<.05$) and was substantially correlated with the depression measure ($r=.46$, $p<.001$). Additional results indicated that the scale has a high internal consistency (coefficient alpha of .94) and appears to be unidimensional Flett (1995).

Previous Research using the REPS: Undergraduate Theses

The first preliminary research with the REPS after its original inception was part of an undergraduate thesis by Gillian Stager (1996) who used 76 university undergraduate students as participants for the study. Stager (1996) investigated the REPS in relation to a number of personality, state and distress measures including perfectionism, measures of dependency and self-criticism as well as sociotropy and autonomy, state-trait anger, and self-reported depression. Stager (1996) found that scores on the REPS were significantly associated with depressive symptoms and to a lesser degree with state anger. The REPS was also correlated with measures of dependency, self-criticism, sociotropy and autonomy, and all three subscales of the BMPS. Self-criticism evidenced the strongest relationship with the REPS, and was much stronger than that between the REPS and dependency. When hierarchical regression analysis was performed

using the REPS as the final predictor of both depression and state anger, PSI scales of autonomy and sociotropy predicted 39% of variance in depression scores (IDD), sociotropy was the predictor that accounted for the most variance while autonomy was not a significant predictor. REPS scores entered in the final block accounted for an additional 5% of variance in depression. In predicting depression, the REPS appeared to account for variance over and above that associated with the interpersonal variables of sociotropy and self-oriented perfectionism, but not dependency. Similarly, when entering the DEQ scale of self-criticism (introjective depression), dependency (anaclitic depression) added an additional 53% of accounted variance in depression scores, while the REPS only added an additional 1% of accounted variance in depression, suggesting a considerable overlap of REPS and the dependency scale.

Another undergraduate pilot project was undertaken by James Wasserman (1997) to evaluate the REPS and vulnerability to depression in a student sample comprised of 103 students. Measures of coping style (ruminative vs. distractive responses to depression), paranoia, anxiety, perfectionism, and stress were also investigated in the context of trait hostility and depression. It was predicted that higher levels of trait hostility (REPS) would be associated with higher levels of depression, anxiety, increased negative social interactions, hassles, ruminative responses to depression, increased paranoia, and socially-prescribed perfectionism. Wasserman found that depression and anhedonia were positively correlated with the REPS (.57 & .37, respectively), as were anxious arousal and general anxiety (.31 & .37 respectively). As far as other personality measures were concerned, the REPS was very highly correlated with paranoia (.51), ruminative coping style (.50), hassles (.48), negative social interactions (.35) and socially prescribed perfectionism (.29). Self-oriented and other-oriented perfectionism were not significantly correlated with resentful embittered personality traits, nor was a distractive coping

style. In addition, Wasserman (1997) found that trait hostility interacted with hassles and negative social interactions to predict general depression. To date, these are the only two unpublished studies evaluating the REPS as it related to other measures of personality and distress. Both studies used a small sample size and were exploratory in nature. One of the goals of the present set of studies was to formally continue this work by using a larger sample size and including participants from a non-student population who are presumed to be experiencing higher levels of stress (i.e., married couples during pregnancy and post-partum) so that richer information can be gleaned.

This paper presents four studies, which, taken together can help to establish the Resentful Embittered Personality Scale as a psychometrically valid and reliable measure that has legitimate clinical and interpersonal relevance. The purpose of Study 1 was to examine the validity of the Resentful Embittered Personality Scale (REPS) by evaluating it against a big-five personality measure, (NEO-FFI), as well as other personality measures related to hostile thinking styles, trait cynicism, blame attributions, interpersonal styles, and attachment styles. Study 2 extended the assessment of the REPS in the context of the five-factor model of personality by reporting on its correlations not only with the five major personality domains, but also the facet subscales of each of the domains of the NEO-PI-R, as a means of further expanding understanding of the resentful embittered personality construct. Study 3 attempted to uncover the clinical implications of embittered personality by reporting on its relationships with interpersonal sensitivity, interpersonal conflict, and life event stress, in predicting self-reported depression and multi-dimensional well-being. Finally, the focus of Study 4 was to examine the predictive validity of the REPS by conducting a repeated measures study before and after a natural exposure to a major life event, the birth of a first child. In the final study, couples were measured prospectively on the REPS and relationship attribution. These variables were assessed for their ability to predict

both depression and dyadic adjustment six months later, after the birth of their child. These four studies taken together present a comprehensive test of the psychometric qualities of the REPS and demonstrate the embittered personality to be a clinically relevant construct to consider in future research and practice.

Study One

Rationale: Study 1

As mentioned above, though previous theorists and researchers have alluded to the relevance of hostility in depression, this is the first known large scale study to have used a self-report measure specifically created to measure an embittered personality style related jointly to depression and hostility. Given that this is a newly created measure, the main focus of the first study was to assess the validity and reliability of the new measure of embittered personality, the Resentful Embittered Personality Scale (REPS; Flett, 1995). To evaluate convergent and divergent validity, the REPS was administered along with several other personality measures including the NEO-FFI (Costa & McCrae, 1992), the Hostile Automatic Thoughts Scale (HAT; Snyder, Crowson, Houston, Kurylo, and Poirier, 1997), the short form of the Inventory of Interpersonal Problems (IIP-SC; Soldz, Budman, Demby, & Merry, 1995), the Interpersonal Adjective Scales (IASR-B5; Trapnell & Wiggins, 1990), the Relationship Questionnaire (Bartholomew & Horowitz, 1991), the Attachment Style Inventory (ASI; Becker, Billings, Evelith, & Gilbert, 1997), Complex Attribution of Blame Scale (CABS; Flett, Blankstein, & Holowaty, 1990), and the MMPI-2 – Cynicism Scale (CYN; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989).

Five factor model of personality and embittered personality. The Five-Factor Model of personality (FFM; McCrae & Costa, 1990) is a model of five broad personality domains: extraversion, agreeableness, conscientiousness, neuroticism, and openness. This model has

considerable empirical support with convergent and discriminant validity across self, peer, and spouse ratings (Costa & McCrae, 1988). It also has demonstrated temporal stability with ranges between 7-10 years (Costa, Herbst, McCrae, & Siegler, 2000; Costa & McCrae, 1994), as well as evidence of heritability (Jang, McCrae, Angleitner, Reimann, & Livesley, 1998). Widiger and Lynam (1998) have contended that the “Big 5” factors of personality may even be able to assist in providing meaningful contribution to understanding psychopathy. According to this theory, psychopathy should be negatively associated with conscientiousness and agreeableness, and positively associated with neuroticism, an association that has been well demonstrated in adults (e.g., Miller, Lynam, Widiger & Leukefeld, 2001).

The first objective of the first study was to examine the hostile personality as it relates to general personality traits as measured by the NEO-FFI (Costa & McCrae, 1992). The NEO-FFI is a shorter (60-item) version of the NEO PI-R. It is a comprehensive measure of the five domains of personality. Because the NEO-FFI is such a robust measure of the "Five-factor" model of personality and has been so widely used in personality research, its inclusion in this study was viewed as an essential first step to examining issues of validity and theoretical development with the REPS. It was expected that the REPS would be positively related to the "neuroticism" subscale, and negatively related to the "agreeableness" subscale of the NEO-FFI.

Hostile automatic thoughts, cynicism, blame and the resentful embittered

personality. To assist further with issues of convergent validity, embittered personality was examined in relation to other measures of state hostility, such as the Hostile Automatic Thoughts (HAT) questionnaire. The HAT (Snyder et al., 1997) comprises three factors representing different themes underlying hostile cognitions, namely, *physical aggression*, *derogation of others*, and *revenge*. It was expected that larger positive correlations would be found for the derogatory and revenge factors of the HAT, given that physical aggression is less

acceptable socially. In particular, the REPS was expected to be positively correlated with hostile automatic thoughts as measured by the HAT scale (Snyder et al., 1997).

Many of the items on the REPS seem to also reflect a cynical and skeptical view of other people, especially in terms of how they relate to the self. Thus, people with an embittered personality may also share a general distrust of others' motives and a negative attitude toward others, which are aspects that are in common with cynicism. The assumed difference between the two constructs is believed to lie in the fact that cynical people can also feel confident about themselves, whereas individuals with high levels of embittered personality likely have an insecure sense of self-worth in addition to the cynical belief that others may also be untrustworthy and hurtful.

Along with a tendency toward cynicism, it was postulated that embittered personality also would involve blame attribution. To explore the extent to which blame attribution was related to embittered personality, the Complex Attribution of Blame scale (CABS; Flett et al, 1990) was included in this study. The CABS is comprised of six factors including: *characterological self-blame, characterological other-blame, behavioral self-blame, behavioral other-blame, circumstances and luck* (Flett et al., 1990). It was predicted that persons found to score highly on embittered personality would tend to have high other-behavioral blame as well as high self-characterological blame. The reasoning behind this prediction is that those who have an embittered personality style may be thought of as poorly adjusted because of the assumption that others will readily point out faults in others, and thus, those who score high on embittered personality would be expected to be the targets of others' criticism. At the same time, because they are believed to be more sensitive to criticism, it would imply some underlying self-doubt, which would show through on this factor of characterological self-blame.

Interpersonal adjustment and the resentful embittered personality. In addition to the predicted relationships between embittered personality and related personality variables, there are also significant implications for interpersonal sequelae as a consequence of this personality style, as well as for its maintenance. Thus, the development of the items on the REPS also reflects the important effect that an embittered personality has on interpersonal adjustment.

There has been some empirical evidence to suggest that embittered personality or hostile styles have negative effects on interpersonal adjustment. Gallo and Smith (1999) for example used a cluster analysis to show that there were two groups of individuals who displayed higher risk for psychosocial maladjustment: those who were deemed to be “hostile-social” who displayed higher levels of interpersonal hostility and neuroticism, although they had more affiliative interactions with their parents; and those who were labeled “hostile-isolated”, who had elevated levels of hostility and neuroticism but low social support and fewer friendly interactions with their parents. Apart from these studies, however, there has been no further work investigating these relationships in the context of the interpersonal circumplex.

The Interpersonal Circumplex is a rich theoretical framework from which the embittered personality style may be examined more fully. The Interpersonal Circumplex provides measures of eight categories of interpersonal variables that are referred to as octants. These octants of the interpersonal circle are: Assured-Dominant (PA), Arrogant-Calculating (BC), Cold-hearted (DE), Aloof-Introverted (FG), Unassured-submissive (HI), Warm-Agreeable (LM), and Gregarious-Extraverted (NO). There exists substantial empirical literature on the correlates of the interpersonal circumplex model (e.g., Kiesler, 1996; Plutchik & Conte, 1997). The interpretability of this measure is also quite specific and lends itself well to empirical evaluation. Specifically, the underlying mathematical properties of the circumplex structure are such that the "angle of separation between interpersonal tendencies provides a direct measure of their

conceptual and componential similarities" (Gurtman, 1992, p. 106). Measures that occur at right angles on the circle are considered unrelated, measures at straight angles (i.e., opposite ends or sides of the circle) are negatively associated, and measures that share angular locations are considered highly similar.

Accordingly, the interpersonal circumplex framework provides elements from a model of general personality that may allow for a richer understanding of the embittered personality. As such, the REPS was expected to be associated with interpersonal difficulties as reflected by measures of the interpersonal circumplex, such as the short form of the Inventory of Interpersonal Problems (IIP-SC; Soldz, Budman, Demby, & Merry, 1995). It was expected that trait embitterment would be positively related to such factors on the IIP-SC as "*controlling*" and "*assertive*", and would be negatively related to the "*sociable*" and "*submissive*" factors. To date, no research has been done examining the embittered personality style and interpersonal vulnerability, although the construct lends itself well to interpersonal theories of adjustment and depression (e.g., Coyne, 1985).

Along these same lines of thought, embittered personality was also expected to be related to another measure of the interpersonal circumplex, the Interpersonal Adjective Scale-Revised (IASR-B5; Trapnell & Wiggins, 1990). It was expected that embittered personality should be positively related with "*aloof-introverted*", and "*arrogant- calculating*" factors, and should be negatively correlated with "*unassured-submissive*" and "*warm-agreeable*" factors of the circumplex.

Attachment and resentful embittered personality. A further goal of Study 1 was to examine the possibility that embittered personality may be related to specific difficulties with attachment as reflected in two measures of attachment style. Attachment theory describes the way individuals form, maintain, and end relationships as well as the how relationship problems

may develop within their social circles. John Bowlby (1988), Ainsworth (1982), and others have argued that humans have an intrinsic instinctual drive to form interpersonal relationships with others. Originally, attachment theorists focused their attention on explaining child and adult psychopathology as a function of poor relationships between children and their caregivers. Attachment theorists posited that individuals formed “internal working models” or cognitive and affective schemas about themselves in relation to others based on these early childhood experiences with their caregivers. Longitudinal studies have supported the claims that the stability of the effects of childhood attachment relationships can be witnessed in adult relationships in parenting, peer relationships and romantic relationships (e.g., Bartholomew, 1990; 1993; Main, Kaplan, & Cassidy, 1985; Shaver, Hazan, & Bradshaw, 1988; Weiss, 1982). There is considerable evidence for the associations among parental attachment, adult attachment style, and hostile dispositions (Cooper, Shaver & Collins, 1998; Critchfield, Levy, Clarkin & Kernber, 2008; Gallo & Smith, 1999; Mikulincer, 1998; Muris, Meesters, Morren & Moorman, 2004). The gist of all of these studies is that hostile dispositions and related problems are positively related to insecure attachments styles (i.e., avoidant and anxious-ambivalent, or according to Bartholomew’s (1990) model, preoccupied, fearful and dismissing styles). These attachments styles, which tend to predict hostile traits and behavioral problems, are thought to lead to further interpersonal stress and maladjustment in adulthood. In keeping with this literature, it is likely that the embittered personality also is related to insecure attachment styles. Though still speculative, it is possible that the resentful embittered personality style may be partially established early, with perceived parental rejection that may lead to negative schemas (rules and assumptions) being established at a young age, such as “I have been rejected unfairly, therefore people cannot be trusted”. These schemas, in turn, may increase vulnerability to react with embitterment following experiences of perceived social rejection or attacks. Such

hypervalent schemas may, in turn, cause the embittered person to seek out or monitor for these types of social transgressions in interpersonal relationships.

The relationships between embittered personality and attachment styles were explored within this study by using the Attachment Style Inventory (ASI; Becker et al., 1997) and the Relationship Questionnaire (Bartholomew & Horowitz, 1991). The ASI measures three attachment styles reflecting *secure attachment*, *preoccupied attachment*, and *fearful attachment*. It was expected that hostile personality styles would be positively related to fearful attachment styles and negatively related to secure and preoccupied attachment styles. In addition to the ASI, attachment style was also assessed using four attachment style categories that are described in Bartholomew and Horowitz's (1991) Relationship Questionnaire. These four attachment patterns are defined as a function of two dimensions: (a) person's model of self (i.e., the degree to which a person has internalized a sense of his or her self-worth versus their uncertainty of their own lovability and (b) person's model of others (i.e., the degree to which others are generally expected to be available and supportive). The self-model (a) is associated with the degree of anxiety and dependency on others' approval in close relationships whereas the other-model (b) is associated with the tendency to seek out or avoid closeness in relationships. The four attachment styles described in the Relationship Questionnaire are Secure, Preoccupied, Dismissing, and Fearful. Secure adult attachment is characterized by the combination of a positive self-model and a positive model of others. Thus secure individuals have a positive sense of self-worth and are generally comfortable in intimate relationships. Preoccupied attachment is characterized by a negative self-model and a positive model of others. Thus, preoccupied individuals anxiously seek to gain acceptance and validation from others, persistent in the belief that they would be able to gain safety and security from others, if only they could get others to respond properly toward them. Fearful attachment is characterized by negative self and other

models; fearful individuals are like preoccupied styles in that they too are highly dependent on others' acceptance and affirmation, but because of their negative expectations, they avoid intimacy to avert the pain of loss and rejection. Dismissing attachment is characterized by a positive self-model and a negative model of others. Dismissing individuals avoid closeness because of negative expectations; however, they maintain a sense of self-worth by defensively denying the value of close relationships.

Using the Relationship Questionnaire, participants were asked to read four brief paragraphs describing attachment styles in relationships and were asked to select the one that was most applicable to them. It was expected that the highest rating by persons who score high on embittered personality would be for the paragraph pertaining to the anxious/fearful and preoccupied attachment styles, as well as dismissing/avoidant styles.

There has been ample evidence that insecure attachment in adulthood places individuals at risk for a variety of problems that challenge their ability to cope (Shaver & Hazan, 1993). Insecure attachment has been shown to be related to distress and negative affective states. For example, both avoidant and ambivalent people were found to be more anxious, ruminative, hypervigilant, and more hostile than people who were securely attached (Kobak & Sceery, 1988; Shaver, & Hazan, C., 1993). They were generally more lonely (Hazan & Shaver, 1987), as well as showing increased indications of shame, anger, feared negative evaluation, and higher levels of pathological narcissism (Collins & Read, 1990; Wagner & Tangney, 1991). In addition, Collins and Read (1980) have shown that avoidant and ambivalent individuals show more signs of negativity and mistrust towards others and of human nature in general. Avoidant persons in particular have been theorized to be unwilling to accept being inadequate and weak, thus may be more hostile or angry as a means of reacting against a distressing world, which may point towards problems with the self. Also, Mikulincer (1998) found that individuals with secure

attachment styles tended to be less anger-prone and attributed less hostile intent as compared to insecurely attached individuals. Ambivalent attached individuals especially experienced less anger control and greater internalized anger, while avoidant attached individuals expressed higher levels of hostility as compared to securely attached participants.

Finally, Study 1 included a well-known measure of socially desirable responding, the Balanced Inventory of Desirable Responding – S, which is a 20-item measure of “impression management” (Paulhus, 1991). This scale is important as a means of determining whether the respondents are purposely enhancing their image while completing the battery of questionnaires. This study was conducted by following published guidelines and cut-off scores for identifying participants who may be consciously distorting their answers, so that they could be excluded from the analysis.

Hypotheses: Study 1

- 1) A significant moderate positive correlation was predicted between resentful embittered personality and neuroticism.
- 2) A significant negative correlation was predicted between resentful embittered personality and trait agreeableness.
- 3) A significant positive correlation was predicted between resentful embittered personality and derogatory and revenge-related hostile automatic thoughts.
- 4) A significant positive correlation was predicted between resentful embittered personality and both controlling as well as assertive aspects of the interpersonal circumplex.
- 5) A significant negative correlation was predicted between the resentful embittered personality and both the sociable and submissive factors on the interpersonal circumplex.
- 6) A significant negative correlation was predicted between resentful embittered personality and secure attachment styles;

- 7) A significant positive correlation was predicted between resentful embittered personality and anxious, dismissive as well as fearful attachment styles.
- 8) A significant positive correlation was predicted between the resentful embittered personality and cynicism.
- 9) A significant positive correlation was predicted between resentful embittered personality and both characterological other-blame as well as behavioral other-blame.

Method: Study 1

Sample Characteristics: Study 1

112 participants were recruited from the Undergraduate Research Participant Pool at York University. A brief description of the study was placed on a dedicated study recruitment board that allowed students to choose studies for voluntary participation. Participants were required to sign a consent form (Appendix A) prior to participation and were informed of their right to withdraw from the study without penalty. The average age for this sample was 19.96 years ($SD = 3.05$). 69.7% were raised in urban areas. 93% of this sample was single, while the remaining were either married (3.5%) or divorced (1.8%). 81% of this sample was in first year of university. A disproportionate number of females chose to volunteer for this study (i.e., only 2 males chose to participate) thus, gender differences could not be determined. Given the great disparity in numbers between men and women, the two male participants were dropped from the analysis. The average age for the full sample was 19.98 years with a standard deviation of 3.09.

Materials: Study 1

Demographic Questionnaire. Participants were asked to record their age, gender, community location, marital status, highest level of education, year of study, and occupation.

Resentful Embittered Personality Scale. The REPS (Flett, 1995) is a 26-item self-report questionnaire designed to measure the embittered personality style related to the main

themes underlying the link between hostility and depression. The scale contains items that tap resentment, feeling singled out for mistreatment, tendency to project blame on to others, and self-pity. In the REPS, each item is rated on a seven-point scale ranging from 1 (totally disagree) to 7 (totally agree). Sample items from this inventory include “At times, I consider myself a target for other people’s anger”; “I am sometimes made to feel like there is something wrong with me”; “I can vividly recall things that people have done to make me suffer.”

NEO Five-Factor Inventory Short Form. The NEO-FFI (NEO-FFI, Costa & McCrae, 1992) is a brief 60-item version of the NEO PI-R, comprised of five 12-item scales used to tap the five broad domains of personality: Neuroticism (the tendency to experience negative affect, such as anxiety, depression, and hostility), Extraversion (the quantity and intensity of interpersonal interaction), Openness to Experience (the proactive seeking and appreciation of novel experiences), Conscientiousness (degree of motivation, organization and persistence in goal-directed behavior), and Agreeableness (the quality of interpersonal relationships ranging from compassionate to antagonistic). Participants indicated the degree to which they agree or disagree with each item on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. Estimates of internal consistency have ranged from 0.68 for Agreeableness to 0.86 for Neuroticism (Costa & McCrae, 1992). The Agreeableness factor notwithstanding ($r=0.77$), all other factors of the NEO-FFI are highly correlated with those on the NEO PI-R, with coefficients ranging from 0.87 to 0.92. The NEO-FFI was developed by keeping those items from the NEO PI-R that demonstrated the best discriminant and convergent validity (Costa & McCrae, 1992).

Hostile Automatic Thoughts Scale. The HAT (HAT; Snyder, Crowson, Houston, Kurylo, and Poirier, 1997) is a 30-item self-report measure comprising three factors: physical aggression, derogation of others, and revenge. Participants rated each item on a 5-point Likert scale, ranging from 1 (“not at all”) to 5 (“all the time”). These include: Physical Aggression (e.g., “I want to

kill this person!”), Derogation of others (e.g., “This person is a loser!”), and Revenge (e.g., “I want to get back at this person”). Borrowing from the cognitive model of depression, these three factors are presumed to capture the gist of most automatic thoughts that underlie the emotion of hostility. Snyder et al. (1997) reported good alpha reliability of .94 and split-half reliability of .95 for the HAT. The coefficient alphas reported for the three subscales range from .88 to .92. The measure correlates highly with other measures of hostility and is deemed to be a worthy measure of hostile automatic thoughts for future studies.

Inventory of Interpersonal Problems. The IIP-SC (IIP-SC; Soldz, Budman, Demby, & Merry, 1995) is the short form of the original 127-item measure constructed by Horowitz, Rosenberg, Baer, Ureno, & Villasenor (1988). The IIP-SC is a 32-item self-report measure of interpersonal skills related to Control and Affiliation. The IIP-SC contains eight octant subscales (domineering, vindictive, cold, socially avoidant, non-assertive, exploitable, overly nurturant, intrusive), which comprise the circumplex model of interpersonal behavior. Participants were asked to rate each item on a 5-point Likert scale ranging from 1 (“strongly disagree”) to 5 (strongly agree), reflecting the degree to which item describes their interpersonal category. These include: Domineering (e.g., “I am too aggressive toward other people”), Vindictive (e.g., “I am too suspicious of other people”), Cold (e.g., “It is hard for me to show affection to people”), Socially Avoidant (e.g., “It is hard for me to join in groups”), Nonassertive (e.g., “It is hard for me to be firm when I need to be”), Exploitable (e.g., “I let other people take advantage of me too much”), Overly Nurturant (e.g., “I try to please other people too much”), Intrusive (e.g., “I open up to people too much”). All IIP-SC subscales are highly correlated with the larger 64-item Inventory of Interpersonal Problems-Circumplex scale developed by Alden, Wiggins, and Pincus (1990), showing correlations all in the .91 to .98 range. Moreover, these scales show sensitivity to change over time and in response to therapeutic intervention compared to pre-

treatment scores (Soldz, et. al., 1995). Internal consistencies of the eight subscales range from 0.69 to 0.84. This measure also showed reasonably good three-month test-retest reliability (Soldz, et al., 1995).

Interpersonal Adjective Scale. The IASR-B5 (IASR-B5; Trapnell & Wiggins, 1991) is based on the interpersonal circumplex model of personality and has been revised to include the domains of the five-factor model (Trapnell and Wiggins, 1991). The unique feature of the IASR-B5 is that it is a highly efficient instrument for combined circumplex and five-factor assessment. The IASR-B5 circumplex model comprises eight interpersonal variables, including: assured-dominant, gregarious-extraverted, warm-agreeable, unassuming-ingenuous, unassured-submissive, aloof-introverted, cold-hearted, arrogant-calculating. The measure consists of 124 adjectives, which participants rate on how well each adjective describes themselves, using an 8-point Likert scale ranging from 1 (“extremely inaccurate”) to 8 (“extremely accurate”). The first 64 items comprise the Interpersonal Adjective Scales circumplex (IAS; Wiggins 1995). The following 60 items were added to assess the additional three dimensions of the five –factor model of personality (i.e., Neuroticism, Conscientiousness, and Openness to Experience). Internal consistency coefficients range from .87 to .94 for the five domains. Correlations with the corresponding domains of the NEO PI-R ranged from .65 to .76. This form was found to exhibit excellent internal consistencies for the eight circumplex subscales (.87-.94). It has also shown promising discriminant and convergent validity when compared with the NEO-PI (Costa & McCrae, 1992) and the Hogan Personality Inventory (Hogan, 1986). The IAS has demonstrated excellent psychometric properties (Wiggins, 1995) and good circumplex structure (e.g., Gurtman & Pincus, 2000). The IASR-B5 has proven useful in the classification of personality disorder scales (Pincus & Wiggins, 1990; Wiggins & Pincus, 1989,1994), in addition to a vast array of other personality measures (e.g., McCrae & Costa, 1989; Soldz, Budman,

Demby, & Merry, 1995; Wiggins & Broughton, 1991). Furthermore, the IAS has been meaningfully related to the Inventory of Interpersonal Problems (Alden, Wiggins, & Pincus, 1990; Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988; Wiggins, Trapnell, & Phillips, 1988; Wiggins & Trobst, 2002).

The Relationship Questionnaire. The RQ (RQ; Bartholomew & Horowitz, 1991) is a model of attachment style based on Bowlby's (1973, 1980, 1982) conceptualization of two internal representations of attachment. Searle and Meara (1999) modified the RQ by merging Bartholomew and Horowitz's (1991) 30-item measure and Hazan and Shaver's (1987) three paragraph measure, to develop a four-paragraph measure of four attachment styles: secure, preoccupied, dismissing, fearful. Additionally, a final question was added that asked respondents to indicate which of the four attachment styles described them the best. This measure consists of four short paragraphs describing the four attachment styles. Respondents were asked to rate how well each statement described themselves using a 7-point Likert scale ranging from 1 ("it does not describe me at all) to 7 ("it describes me completely). Each participant received one score for each attachment style, with four scores for this measure. The items include: Secure Attachment (e.g., "It is easy for me to become emotionally close to others"), Fearful Attachment (e.g., "I am uncomfortable getting close to others"), Preoccupied Attachment (e.g., "I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like'), Dismissing Attachment (e.g., "I am comfortable without close emotional relationships"). Self-report and behavioral evidence supports the validity of this categorical measure (e.g., Becker et al., 1997; Griffin & Bartholomew, 1994; Guerrero, 1996). Test-retest data over an eight-month period indicated moderate to high reliability and stability, showing that most individuals assign themselves to the

same attachment style category over time and this is especially true of individuals with a secure attachment style (Scharfe & Bartholomew, 1995).

Attachment Style Inventory. The ASI (ASI; Becker, Billings, Evelith, & Gilbert, 1997) is a 25-item measure based on the attachment style measures developed by Hazan and Shaver (1987), Bartholomew and Horowitz (1991), and Collins and Read (1990). The ASI measures three attachment styles (secure attachment, preoccupied attachment, and fearful attachment) and is rated on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Items in the measure include: Secure (e.g., “I am relatively confident that other people will accept me as I am”), Preoccupied (e.g., “Sometimes people do not want to get close to me because I want so much to be close to them”), Fearful (e.g., “I find it difficult to trust others completely”). Reported internal reliabilities have ranged from .81 to .89 for the three subscales.

MMPI-2 Cynicism Scale. The MMPI-2 Cynicism Scale (CYN; Butcher, et al., 1989) is one of the 15 content scales developed by Butcher et al. (1989); the Cynicism Scale was derived from the items contained in the MMPI-2. This scale comprises 23 items selected from the MMPI-2 and follows the same true-false forced-choice format. High scores on the CYN content scale reflect misanthropic beliefs, general distrust of others' motives, and resultant negative attitudes toward others. This scale evidences good internal consistency (alpha equal to .85) and test-retest reliabilities of .80 and .89 for males and females respectively.

Complex Attribution of Blame Scale. The Complex Attribution of Blame Scale (CABS; Flett, Blankstein, & Holowaty, 1990) is an attributional measure derived from original work by Janoff-Bulman (1979). The CABS comprises four negative hypothetical outcomes that involve the self and another individual. Participants were asked to rate blame attributions for each event on the following dimensions: characterological self-blame, characterological other-blame, behavioral self-blame, behavioral other-blame, circumstances, and luck. Ratings range from 1

(“not at all”) to 9 (“a great deal”), whereby higher scores reflect a greater amount of attributed blame. Items include: Characterological self-blame (e.g., “How much do you blame yourself for the kind of person you are?”), Characterological other-blame (e.g., “How much do you blame the other person for the kind of person they are?”), Behavioral self-blame (e.g., “How much do you blame yourself for something you did?”), Behavioral other-blame (e.g., “How much do you blame the other person for something they have done?”), Circumstances (e.g., Given what happened, how much do you blame the circumstances?”), and Luck (e.g., Given what happened, how much do you blame bad luck?”). Internal consistencies of the six subscales of the CABS ranged between .63 and .83, except for the Circumstances subscale that had an alpha coefficient of .49.

Balanced Inventory of Desirable Responding – Impression Management. The BIDR-S (BIDR-S; Paulhus, 1991) is a 20-item scale that measures the extent to which a respondent has a tendency to fake or lie. It is a well-known measure of social desirable responding. As such, participants are asked to rate the degree to which they tend to perform various desirable, albeit, uncommon behaviors (e.g., “I always obey laws even if I am unlikely to get caught”). An individual who answers many of these questions in a socially desirable way, may be deliberately exaggerating their virtues presumably to impress others. The manual for this scale recommends a cut-off score for invalidity in which scores that are either less than 1 or greater than 12 are likely invalid.

Analyses: Study 1

Specific analyses for Study 1 data included general zero order correlations, as well as normative data and reliability statistics. Due to multiple correlations and the risk of Type I error, faulty interpretations may also be mitigated by incorporating the Bonferroni correction. Thus, the Bonferroni adjusted alpha for this study would be $<.001$.

Results: Study 1

Table 1 shows mean scores, standard deviations, and alpha reliabilities for this sample for each of the variables in this study. Cronbach's alpha (Cronbach, 1951) reliabilities were computed for each of the scales used in the present study. Internal reliabilities ranged from .95 (Hostile Automatic Thoughts –Total Scale Score) to .51 (Complex Attribution of Blame - Circumstance). As illustrated in Table 1 below, notwithstanding very few exceptions, all scales were found to have had adequate internal reliabilities and were consistent with findings from other studies that have utilized these scales. Of note, the primary measure of interest, the Resentful Embittered Personality Scale had very good internal reliability at .92.

REPS and NEO-FFI

Hypothesis 1 was that a significant but moderate positive correlation would be found between embittered personality and trait neuroticism. In fact, the REPS was found to have a strong positive correlation with the Neuroticism factor of the NEO-FFI in support of Hypothesis 1. Hypothesis 2 was that a negative relationship would be found between the REPS and the trait agreeableness scale as measured by that factor from the NEO-FFI; the results supported this hypothesis as well as indicated in Table 1.

REPS and Hostile Automatic Thoughts

Consistent with Hypothesis 3, significant positive associations were found between embittered personality and both derogatory and revenge-related hostile automatic thoughts. In fact, the REPS was found to be positively related to the total scale score of the HAT questionnaire, as well as to all of the subscales subsumed within this scale.

REPS and Interpersonal Styles

In support of Hypotheses 4, significant positive relationships were found between embittered personality and both controlling and assertive aspects of the interpersonal circumplex

as measured with the IIP and IAS. The REPS was found to be positively related with several controlling and assertive facets of the IIP including domineering, vindictive, cold, intrusive, and avoidant interpersonal styles.

When evaluating Hypothesis 5, the REPS was not found to be negatively correlated with either social or submissive interpersonal styles on the IIP. Instead, the REPS was found to be positively related to nurturant, non-assertive, and exploitable interpersonal styles on this measure.

REPS and Attachment Styles

As expected, in Hypothesis 6, the REPS was found to be negatively related to secure attachment styles as measured by both the Relationship Questionnaire and the ASI. Conversely, the REPS was found to be positively associated with fearful/anxious, dismissive and preoccupied attachment styles as measured by the Relationship Questionnaire and with fearful and preoccupied attachment as measured by the ASI in support of hypothesis 7.

REPS and Trait Cynicism

Hypothesis 8 was supported in finding that embittered personality showed a strong positive relationship with trait cynicism as measured by that subscale on the MMPI-2.

REPS and Blame Attribution

Support for Hypothesis 9 was partial, given that embittered personality was positively associated with both characterological and behavioral other-blame; however, it was also associated with characterological and behavioral self-blame. In general, characterological attributions were more strongly related with the REPS than behavioural attributions. Behavioral self-blame evidenced the weakest of these associations with the REPS.

REPS and Social Desirability

Though no specific hypotheses were made with respect to the REPS's relationship with social desirability, it was noted that in this sample, embittered personality was moderately negatively correlated with social desirability.

Discussion: Study 1

The primary goal of the first study was to establish the construct validity of the REPS by evaluating the relationships between it and a number of measures thought to be theoretically linked to this construct. In general, the resentful embittered personality was shown to be related to other personality measures in ways that were hypothesized. To this end, it was expected that the REPS would show a number of predictable associations with certain facets of the NEO-FFI, attachment, interpersonal circumplex, hostile cognitive styles, blame attribution, and trait cynicism. Specifically, convergent validity of the REPS was supported in that it evidenced predictable positive associations with trait neuroticism (NEO-FFI, IAS B5), hostile automatic thoughts, controlling aspects of the interpersonal circumplex (as measured by the IIP and IAS), insecure attachment styles, anxious and preoccupied attachment (Relationship Questionnaire; Attachment Style Inventory), characterological and behavioral other blame, and trait cynicism. Similarly, divergent validity was established by showing significant negative associations with trait agreeableness (NEO-FFI), sociable and submissive factors of the interpersonal circumplex (IAS & IIP), as well as secure attachment styles (Attachment Style Inventory, Relationship Questionnaire). In addition, the REPS was shown to be negatively related to social desirability, suggesting that those who score highly are unlikely to manage social impressions to highlight their positive social attributes.

What was somewhat unexpected were the associations that were not specifically predicted, such as that with the NEO-FFI. Specifically, the REPS was found to be negatively related to trait extraversion and trait conscientiousness. Despite the fact that these associations were not specifically predicted, the significant relationships with these factors fit in a theoretically meaningful way in that it would be logical to presume that someone who is high in trait embitterment would not enjoy interacting with others socially (i.e., would be less extraverted) and would likely show less conscientiousness towards others due to greater emphasis being placed on protecting the self.

In a similar vein, significant relationships were found between embittered personality and a number of factors on the interpersonal circumplex. For example, significant positive relationships were found between embittered personality and the exploitable, overly nurturant, and non-assertive facets of the interpersonal circumplex. One might speculate that people who score highly on embittered personality may also feel vulnerable to be exploited by others, and may, in defense, initially shy away from asserting themselves. Their difficulties with communicating their needs and boundaries may reflect an underlying tendency to be nurturant towards others as they may wish others would be towards themselves, until such time that they become frustrated and resentful due to perceived excessive provocation from others. Thus, resentful embittered people may feel both unjustly treated by others and helpless to do anything about it. With this helpless mindset, they may be unwilling to attempt to be assertive in getting their needs met, expecting that their efforts will be ineffective. Positive correlations with the detached-inhibited and unassured-submissive facets of the IAS suggest that the person with high trait resentful embittered personality may have an insecure self-concept, which may be related to mistrust or fear of negative social feedback. While the theoretical relationships between the REPS and these unexpected personality variables are somewhat speculative, it would be

important if confirmation of the theoretical psychological underpinnings of the REPS could be replicated in future research studies.

The resentful embittered personality was positively related to characterological and behavioral other blame; however, unexpectedly, it was also positively related to characterological and behavioral self-blame. The highest correlations were evidenced with characterological blame, regardless of whether it was in relation to the self or others, suggesting that people with embittered personality styles may tend to understand others and the self in a fairly inflexible and simplistic way.

Resentful embittered personality was also positively related to trait cynicism (MMPI 2 – content scale; Butcher et al., 1990) as hypothesized. According to the interpretive guidelines in the MMPI-2 manual the suggested interpretations for those who score highly on this content scale of the MMPI 2 (and which might be shared with those who score highly on the REPS) include: “interpersonal suspiciousness” (e.g., beliefs that others are not to be trusted) and “misanthropic beliefs” (e.g., beliefs that others are selfish and interested only in their own welfare, and, a personal unwillingness to rely on others for support). Such cynical people may be suspicious of the motives of others and as a result guarded and even hostile towards others. This description of cynical traits described in the MMPI-2 manual dovetails well with the theoretical underpinnings thought to be important with resentful embittered personality.

It was also predicted that the embittered personality would be related to revenge and derogatory hostile automatic thoughts. This study found that not only was the REPS related to these hostile automatic thoughts, but also it was associated with thoughts of physical aggression. The generally broad ranging associations between embittered personality and hostile thinking styles which even include thoughts of physical aggression was somewhat surprising in that it was assumed that trait oppositionality would not necessarily demonstrate such high degree of

thoughts related to behavioral manifestations of hostility. This finding underscores the level of psychological disturbance that is likely experienced by those who score highly on the REPS and may also imply a higher tendency to act on these thoughts if left unchecked (although this cannot be specifically concluded from this study as hostile behaviors was not evaluated as part of this study). One can only assume that had more males participated in this study, there would be even stronger associations between the REPS and hostile related thoughts given the literature that men tend to express more hostility than women (Barefoot, Peterson, Dahlstrom, Siegler, Anderson et al., 1991; Eagly & Steffen, 1986).

Finally, resentful embittered personality was found to be modestly negatively correlated with social desirability. This finding likely reflects more than a response bias, indicating a deeper underlying psychological motivation at play that is relevant to this personality style, as indicated by McCrae and Costa (1983). Specifically, it is plausible that people with this personality orientation are not motivated by being regarded highly by others, but rather may actually attempt to disrupt the formation of positive impressions, which may account for the significantly low social desirability scores. Given that people with embittered personality styles consistently expect others to be critical or rejecting of them, what may be of greater importance is their own self-defense against those who are identified as enemies, since they may have already accepted their fate that they are not liked.

In conclusion, Study 1 demonstrated the convergent and divergent validity of the Resentful Embittered Personality Scale. It also showed the REPS to be a very internally consistent measure as evidenced by an alpha reliability of .92. In short, preliminary investigations of this measure in this study as well as the two unpublished studies with university students support the construct validity and internal reliability of this scale. Study 2 built on the construct validity of Study 1 as it pertained to all of the facets of the NEO PI-R scale. The focus

of Study 2 was to further examine the associations between resentful embitterment and its particular relationships with the neurotic and agreeable domains of the NEO PI-R by correlating the REPS with the specific facet scales contained within each of those two domains.

Study Two

Rationale: Study 2

The purpose of Study 2 was to further explore, the theoretical underpinnings of the REPS from the perspective of personality traits, with the use of the NEO PI-R (Costa & McCrae, 1992). As such, the goals of Study 1 and Study 2 overlapped to some extent in that Study 1 utilized the short form of the NEO PI-R, that is the NEO-FFI. The NEO PI-R contains 240 items, from which 30 facet scales are derived, which are, themselves, subsumed under the five major domains. Although the NEO-FFI enables one to make broad statements regarding the five factors of personality, it does not allow for the same level of specificity of the NEO PI-R facets subsumed within the five personality domains. Due to the numerous facet subscales that have been identified on the revised version of the NEO-PI, an opportunity was presented to explore new relationships and to enrich the theoretical understanding of the REPS through these relationships. A thorough examination of the relationships between a resentful embittered orientation and these facet subscales was undertaken with a view to assist with issues of convergent, divergent and construct validity, although other relationships were also explored in the interpretation of the results. Predictions about how the REPS would relate to the NEO PI-R domains were consistent with Study 1 in that it was expected that resentful embittered personality would relate positively to neuroticism, and negatively to agreeableness. Better information is expected to be gleaned from Study 2 by identifying important facets within the Neuroticism and Agreeableness domains that are likely to relate most highly to the REPS.

The Neuroticism domain of the NEO PI-R is designed to tap emotional instability and maladjustment. There are six facet scales that comprise the Neuroticism domain:

NI – Anxiety: high scorers are apprehensive, fearful, and prone to worry.

N2 – Angry Hostility: high scorers tend to experience anger, frustration, and bitterness.

Whether this is expressed, depends on whether the individual also has low scores on agreeableness domain.

N3 – Depression: high scores reflect depressive affect, guilt, hopelessness and loneliness.

N4 – Self-consciousness: high scores reflect shame and embarrassment, are sensitive to ridicule, and are prone to feelings of inferiority and shyness.

N5 – Impulsiveness: high scorers have difficulty controlling urges and cravings.

N6 – Vulnerability: high scores on this facet reflect an inability to cope with stress, a tendency to be dependent or panicked when facing an emergency.

It was predicted that that resentful embittered personality would be reflected most strongly in the Anxiety, Angry Hostility, and Depression facets of the Neuroticism domain.

Individuals who have high levels of resentful embittered personality are likely to be apprehensive and have a ruminative style when it comes to expectations and attributions of interpersonal situations (N1 – Anxiety); they are expected also to be frustrated and bitter when these predictions are confirmed in reality (N2- Angry Hostility), and at times may feel isolated and sad at the prospect that they are doomed to experience these difficulties as they have in the past (N3 - Depression).

The Agreeable domain of the NEO PI-R taps a primary dimension of interpersonal tendencies. High scorers in this domain are generally altruistic, sympathetic, and trusting of others motives. Individuals with low scores on this factor are more disagreeable or antagonistic and are also skeptical of others' motives. As a result, low scorers tend to be competitive rather than cooperative. The six facet scales of the Agreeableness domain are described below:

A1 – Trust: high scores reflect a belief that others are honest and well-intentioned. Low scorers are more cynical and skeptical.

A2 – Straightforwardness: high scorers are more frank, sincere, and ingenuous. Low scorers are more deceptive and manipulative (through flattery).

A3 – Altruism: high scores reflect an active concern for others' welfare and willingness to help others. Low scorers are more self-centered and unwilling to help.

A4 – Compliance: High scorers tend to defer to others and inhibit aggression in potentially conflictual situations. Low scorers are more aggressive and competitive and more likely to express anger when necessary.

A5 – Modesty: high scorers are humble and self-effacing. Low scorers share traits with narcissism, are perceived to be conceited and arrogant as they believe they are superior to others.

A6 – Tender-Mindedness: this facet measures attitudes of sympathy and concern for others. Low scorers are more hard-headed and less moved by appeals to pity as they consider themselves more realistic and base rational decisions on cold logic alone.

Consistent with the findings of Study 1, a negative relationship between resentful embittered personality and the Agreeableness domain in general was also predicted in Study 2. This study further predicted that resentful embittered personality would be most strongly related negatively with the facets of Trust, Altruism and Compliance. It was believed that people who have high trait resentful embittered personality inherently feel distrustful of the world (Trust), and as a result will tend to be concerned more with protecting the self from potential harm in their interpersonal relationships (Altruism), even if they have to be aggressive in trying to protect themselves (Compliance).

Hypotheses: Study 2

- 1) A significant moderate positive correlation was predicted between resentful embittered personality and neuroticism from the NEO PI-R.
- 2) A significant negative correlation was predicted between resentful embittered personality and agreeableness from the NEO PI-R.
- 3) A significant positive correlation was predicted between resentful embittered personality and the Anxiety, Angry Hostility, and Depression facets of the Neuroticism domain.

- 4) A significant negative correlation was predicted between resentful embittered personality and the Trust, Altruism and Compliance facets of the Agreeableness domain.

Method: Study 2

Sample Characteristics: Study 2

The procedures for recruiting participants in Study 2 were identical to those in Study 1. Participants were recruited from the Undergraduate Research Participant Pool at York University through use of a brief posting using the exact same protocol as in Study 1. The sample comprised 196 female undergraduate students. The average age for this sample was 20.08 years ($sd=2.98$). 93% of this sample was single. 81% of this sample was in first year of university. Only three males chose to participate in this study, thus all of the analyses were based on the females who participated and excluded the males.

Materials: Study 2

Students who volunteered to participate in this study were given a package of questionnaires, which included the REPS and the NEO PI-R. Given the length of the full version of the NEO PI-R, no other scales were included in the study. The REPS is described in Study 1, which can be referred to for further details. The NEO PI-R specifically is described below in further detail and is provided in Appendix B along with the REPS.

The Revised NEO Personality Inventory. The NEO PI-R (NEO PI-R; Costa & McCrae, 1992) is a measure of the five major dimensions or domains of personality and some of the more important traits or facets that define each domain. It is a measure of normal personality traits that has demonstrated considerable utility in both research and clinical settings. It is a well-known and much used measure of personality and has been shown to have good psychometric properties. The five domains that are assessed with the NEO PI-R are Neuroticism (the tendency to experience negative affect, such as anxiety, depression, and

hostility), Extraversion (the quantity and intensity of interpersonal interaction), Openness to Experience (the proactive seeking and appreciation of novel experiences), Conscientiousness (degree of motivation, organization and persistence in goal-directed behavior), and Agreeableness (the quality of interpersonal relationships ranging from compassionate to antagonistic). Participants indicated the degree to which they agree or disagree with each item on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. Internal consistency estimates range from .56 to .81 for the 30 facet scales of the NEO PI-R (Costa, McCrae & Dye, 1991) while 6-year test-retest reliabilities that range from .66 to .92, suggesting considerable stability for a trait measure of personality (McCrae & Costa, 1983).

Analyses: Study 2

Specific analyses for Study 2 data included general zero order correlations as well as provided normative data, and reliability statistics for the sample as a whole. Due to multiple hypotheses being tested simultaneously and the risk of Type I error, faulty interpretations may be mitigated by incorporating the Bonferroni correction. Thus, the Bonferroni adjusted alpha for this study would be $<.001$.

Results: Study 2

Table 2 for this study shows mean scores, standard deviations, and alpha reliabilities for this sample for each of the variables in this study, in addition to bivariate zero-order correlations with the REPS.

The mean for the REPS in this sample ($M = 27.17$) replicated that for the REPS in the first study. Alpha reliability statistics for the REPS were generally consistent with those found in Study 1 and reflect a highly internally stable measure. Utilizing the interpretive guidelines provided by Gliem and Gliem (2003), the five factors of the NEO-PI –R evidenced Cronbach’s alpha statistics that were all in the good to excellent range. Alpha reliability statistics for the

NEO-PI-R facet scales were somewhat more variable, however, and several were in the unacceptable range. Unacceptably low reliability facet scales included A6 (Tender-mindedness; $\alpha = 0.35$), as well as O4 (Actions; $\alpha = 0.51$) and N5 (Impulsiveness; 0.54). The remaining reliability scores ranged from borderline acceptable (.58) to very good (.86).

Zero Order Correlations between the REPS and NEO-PI-R

As indicated in hypothesis 1, it was expected that there would be a significant positive correlation between resentful embittered personality and trait neuroticism. The results are displayed in Table 3. As with Study 1, the REPS was found to have a very strong positive correlation with the Neuroticism factor of the NEO-PI-R ($r=.75$) in support of Hypothesis 1. Hypothesis 2 expected that the REPS would be negatively related to the Agreeableness factor of the NEO-PI-R and this prediction was replicated in this study as it had been in Study 1.

Hypotheses 3 and 4 pertained to specific predictions about the facet scales of the Neuroticism and Agreeableness factors. Hypothesis 3 specifically predicted that N1 (Anxiety), N2 (Angry Hostility), and N3 (Depression) facets would be significantly positively related to trait resentful embittered personality. Study 2 revealed that, indeed, all three facets of the Neuroticism factor (N1 – N3) were significantly positively related to the REPS; specifically, the strongest relationships within this factor were with Anxiety and Depression and the REPS (.60 and .72 respectively). Interestingly, the REPS was found to be highly related to all facets of the Neuroticism factor.

Hypothesis 4 predicted that the REPS would be negatively associated with three facets of the Agreeable factor of the NEO-PI R which included A1 (Trust), A3 (Altruism) and A4 (Compliance). Hypothesis 4 was fully supported by the correlational data showing that those participants with high levels of trait resentful embittered personality were less trusting, more self-centered, and more likely to be competitive or aggressive with others. In addition to the

predicted facets, a significant unpredicted negative correlation was also found between A2 (Straightforwardness) and the REPS suggesting that those with resentful embittered personality may even be more deceptive or manipulative than might have been suspected in their self-serving intentional behaviors. High trait embitterment was also found to be significantly negatively related to A5 (Modesty) indicating that high scorers may indicate an arrogant, narcissistic bent.

Discussion: Study 2

There were several purposes to Study 2. First, one of the aims of this study was to replicate the correlational findings of Study 1, which indicated that embittered personality was positively related to neuroticism and was negatively related to agreeableness in theoretically meaningful ways, which further reinforced issues of reliability and convergent validity. Indeed, correlations between the REPS and Neurotic and Agreeable factors of the NEO-PI-R for Study 2 replicated those of Study 1 almost exactly. Thus, as with Study 1, the REPS was found to be highly positively related with Neuroticism and somewhat negatively related to Agreeableness factors of the NEO-PI-R. The replication of these findings gives considerable support for the reliability of these findings and supports the construct validity of the REPS in a general way.

A related goal was to examine which facets of these predicted relationships between embittered personality and the Neurotic and Agreeable factors of the NEO-PI-R were contributing to these relationships. Specifically, it had been hypothesized that embittered personality would be positively related to three facets of the NEO-PI-R Neurotic factor: N1 (Anxiety), N2 (Angry Hostility) and N3 (Depression). In addition, the REPS was hypothesized to be negatively related to three facets of the Agreeable factor of the NEO-PI R which included A1 (Trust), A3 (Altruism) and A4 (Compliance). All of these predictions were supported by the

analysis, further adding to the construct validity of the REPS. In short, those with high embittered personality reported very high levels of distress as indicated by the NEO PI-R facets of apprehension and worry (N1: anxiety), as well as depressive affect, hopelessness and loneliness (N3: depression). In addition, high scorers on the REPS also demonstrated a tendency to experience higher self-reported anger and bitterness (N2: angry hostility). Costa and McCrae (1992) suggested that those high on angry hostility may *experience* high levels of hostility, but do not necessarily *express hostility*. They further suggest that the willingness to express hostility can be better predicted by the combination of low agreeableness and high levels of angry hostility (N2). This issue, which has important implications for interpersonal outcomes, will be further discussed after reviewing the NEO-PI-R agreeableness factor and its facets in more detail below.

Not only did individuals with high levels of resentful embittered personality show high negative affectivity, but they also tended to score highly on *all* indices of the Neuroticism factor of the NEO-PI-R. In reviewing the correlation table for this study, there were no correlations that were below .415. Thus, in addition to the three neurotic facets previously mentioned, people who were high in resentful embittered personality also showed a higher tendency to experience more self-consciousness, shame and embarrassment (N4: Self-Consciousness), they were more vulnerable to feel hopeless and overwhelmed (N6: Vulnerability), and may have found it harder to control their impulses (N5: Impulsiveness) during periods of stress. Thus, the REPS was related to all facets of the Neurotic factor of the NEO-PI-R. This broad range of correlations may be interpreted to mean that those with high resentful embittered personality traits may actually be more highly neurotic than had been originally theorized. Early personality theorists such as Karen Horney (1945, 1950) noted that those who are more highly affected by neuroticism may be more likely to engage in a wide range of neurotic orientations

simultaneously (e.g., moving toward, moving against, and moving away from people). If this perception is correct, it may account for the similarly broad set of correlations between the REPS and the six facets of the NEO-PI-R Neuroticism factor.

The final set of hypotheses evaluated was the prediction that embittered personality would be negatively related to A1 (Trust), A3 (Altruism) and A4 (Compliance). Indeed, the data supported these predictions suggesting that individuals with high embittered personality were more cynical with respect to trusting others, less giving towards others, and generally more aggressive interpersonally. Additionally, the REPS was found to be negatively related in ways that were more overt than was originally believed. Thus, those with high resentful embittered personality also evidenced a tendency towards deceptiveness and manipulation of others (A2: Straightforwardness), as well as a more arrogant and narcissistic motivation A5 (Modesty). Taking all of these relationships with the Agreeableness factor into consideration, it appears that not only do people with high resentful embittered personality show implicit signs of interpersonal mistrust and cynicism, but they also may show a more callous nature that encourages active expression of selfish motivation, aggressiveness, and overt interpersonal manipulation. This willingness to express and act on their self-serving motives, together with neurotic hostile affect (N2) and high impulsivity (N5), indicates that, under moments of extreme stress, these individuals may be much more likely to express their hostility and seek revenge.

Apart from the hypothesized factors of Neuroticism and Agreeableness, the other three main factors of the NEO-PI-R, Extraversion, Openness, and Conscientiousness and their subsumed facets, were left open for exploration. A number of significant correlations were found with the overarching domains of Extraversion and Conscientiousness, as well as with a number of facets from within the remaining three domains. To approach interpretation of the numerous remaining facets more economically, a correlation coefficient of .25 was used as a

cutoff to determine the facets on which to focus interpretation and discussion so that other subtle aspects of the embittered personality construct may be brought to light. This cutoff was chosen so that the more robust coefficients that reflected larger effect sizes of these personality traits could be identified more reliably for discussion (Mischel, 1968).

Review of the correlations between the REPS and the remaining domains of the NEO-PI-R showed that the resentful embittered personality was modestly negatively related to both Extraversion and Conscientiousness, and was uncorrelated with Openness. What follows is a more specific examination of the traits that comprise these remaining domains and were at least modestly correlated with the REPS. Within the domain of Extraversion, the REPS was modestly negatively associated with Warmth (E1), Assertiveness (E3), and Positive Emotions (E6); low scorers on these facets, such as those with resentful embittered personality traits, tended to be more formal and reserved, less exuberant, and generally reflected a preference to avoid being the centre of attention or to stand out in a crowd. With respect to the Conscientiousness facets, resentful embittered personality was found to be negatively related to Competence (C1) and Self-Discipline (C5). These associations suggested that those who have high traits of resentful embittered personality also tended to feel less competent and capable of dealing with life's problems and had a more external locus of control (C1: Competence). In addition, they were more easily discouraged and may have had difficulty persisting in achieving goals.

Thus, Study 2 confirmed the predicted expectations that those with high trait resentful embittered personality were highly neurotic and interpersonally disagreeable. What was surprising was the degree to which all the facets of neuroticism on the NEO-PI-R were highly linked with resentful embitterment, suggesting that those with high levels of resentful embitterment are living an intensely psychologically and emotionally uncomfortable inner life. This high level of distress also manifests itself as self-criticism and shame, a finding that had

been found in Gillian Stager's (1996) unpublished undergraduate study when she found high positive relationships between the REPS and self-critical depression as assessed by the DEQ. Not only do those with resentful embittered personality feel intensely alone, but they also tend to want to either act out against others in expressing their discontent or attempt to control interpersonal situations through either passive or active avoidance, or even active manipulation of others as a self-protective strategy. It is seemingly clear that they also see the interpersonal world as threatening and mistrustful and will tend to mitigate this through overt control of the environment, and, at times, by being conniving or controlling. This tendency to experience both inner discomfort and interpersonal conflict and distress also negatively affects their sense of inner competence and interpersonal striving.

In conclusion, the amount of psychological and interpersonal suffering far surpassed the expectations in this study and reinforced the broad range of negative impact of this resentful embittered personality trait. It further reinforced the validity of this measure and helped to clarify the intrapsychic and interpersonal correlates of the resentful embittered personality construct. As with Study 1, this study failed to obtain a large enough male sample to be able to evaluate whether these findings are similar for both sexes. Studies 3 and 4 will be better able to address sex differences in their analyses. Study 3 in particular will begin to examine the clinical implications of the resentful embittered personality by observing its potential impact on depression and well-being. In addition the next study will see how the resentful embittered personality interacts with life stress and interpersonal stress in keeping with a vulnerability-stress model. Finally, the robustness of the REPS will be put to the test in several ways to determine its incremental validity by determining whether it is capable of predicting unique variance in depression and wellness, over and above other personality measures and stress measures, as well as to determine its moderating effects on distress and wellness.

Study Three

Rationale: Study 3

The rationale for the third study was to explore the associations between resentful embittered personality as measured by the REPS and other measures of psychological well-being, adjustment, as well as interpersonal and life stress. To this end, the REPS, along with measures assessing the above mentioned variables were administered to 158 students recruited from the Undergraduate Research Participant Pool at York University. Because procedures for recruitment, administration, and debriefing were identical to Studies 1 & 2, the reader is directed to refer to the previous two studies for details about these methods.

Hostility and wellbeing. The first goal of this study was to establish that resentful embittered personality styles do in fact predict psychological adjustment difficulties. A few studies have previously confirmed the link between hostility and poor psychological adjustment (e.g., Maan Diong, Bishop, Chong, Enkelmann, Tong et al., 2005; Lemogne, Nabi, Zins, Cordier, Ducimetière, et al., 2010). However, other thinkers in the field have decided not to limit the definition of adjustment to psychological distress only, but rather they evaluated adjustment on the basis of the relative presence or absence of well-being. This is an important distinction to make because most research looking at predictors of adjustment tend to assume that good adjustment is defined as the absence of psychopathological symptoms such as depression or anxiety. Seligman (2012) explains in his well-being theory, that well-being is attained by maximizing engagement, meaning, positive relationships, positive emotion and accomplishments. In reality, the absence of symptoms of depression only suggests that the individual is not currently suffering; it does not imply that the individual is coping well with stress, nor does it indicate one's overall satisfaction with one's life (Seligman, 2012).

Research has shown that positive and negative affects are not opposite experiences (negatively correlated) but are actually independent (uncorrelated) and yet independently predict global happiness or well-being. Thus, well-being is independently affected *both* by the absence of positive factors related well-being as well as the presence of negative factors that detract from happiness (Bradburn, 1969; Costa & McCrae, 1980; Lowenthal, Thurner, & Chiriboga, 1975). Costa & McCrae (1980) found that these positively and negatively influencing factors affecting well-being are better accounted for by trait-like dispositions rather than situational or otherwise fluctuating mood states. Indeed, emotionality, anger, and poor impulse control were found to be significant temperament influences on both neuroticism and well-being (Costa & McCrae, 1980). Further published literature in support of the link between trait hostility and well-being is considerably sparser, but, nevertheless available. Maan Diong et al. (2005), for example, found that high levels of hostile experiences were both directly and indirectly related to lower levels of well-being.

In summary, a measure of well-being is an important addition in the evaluation of adjustment. To measure well-being and its relationship with resentful embittered personality, the current study employed a multidimensional well-being scale. The Multidimensional Adjustment Scale (MAS; Ryff, 1989) assesses six dimensions of wellbeing including autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. These facets can be combined to obtain an omnibus measure of wellbeing, or each factor can be obtained independently to allow for more specific analyses. Resentful embittered personality was predicted to be negatively related to overall wellbeing as well as the specific wellbeing dimensions of self-acceptance, positive relations with others, autonomy, and environmental mastery.

Hostility and depression. In addition to measuring wellbeing, the present study examined more traditional measures of adjustment including measures of distress and depression utilizing the Centre for Epidemiological Studies – Depression Questionnaire (CES-D; Radloff, 1977). The relevant research summarizing the relationship between hostility and depression has already been noted in the introduction and the reader is referred to the earlier sections to review this literature. Based on previous research, the CES-D is considered valid for use in detecting affective components of depression within community populations. Components of this measure include depressed mood, feelings of worthlessness, feelings of hopelessness, loss of appetite, poor concentration, and sleep disturbance. The REPS was predicted to be positively associated with depressive symptomatology as measured by the CES-D.

Hostility, depression, interpersonal sensitivity, and negative social interactions. Other related aspects of adjustment were evaluated in this second study as it pertained to trait oppositionality including social interaction experiences. There is good evidence showing the negative effects of hostility on relationship satisfaction among couples (Saavedra, Chapman & Rogge, 2010; Durocher et al., 2011; Woodin, 2011), as well as the personal negative effects of publically expressing hostility with respect to higher personal levels of stress and health difficulties among university students (Edwards, Hershberger, Russell and Markert, 2001). In addition, there is also a literature borrowed from the interpersonal theories of depression (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971) which suggests that depressive self-presentations tend to elicit unsupportive and hostile responses from others; thus, it was expected that those who had a resentful embittered personality style would be much more intolerant of others' depressive social interactions, and consequently, even more at risk of reacting in a hostile manner given their tendency to criticize and attribute blame to others. This was expected especially for those with a more anaclitic (sociotropic) as opposed to introjective (autonomous)

depressive style (Blatt, Shahar & Zuroff, 2001). Perhaps the most comprehensive study to show the negative impacts of hostility on interpersonal relationships comes out of an 11-year longitudinal study in the United States and Mexico (Miller, Markides, Chiriboga & Ray, 1995) whose authors found that hostility was predictive of future interpersonal conflict and distress. Specifically, baseline hostility was found to predict subsequent divorce, marital separation, ending a serious non-marital relationship, not being married at follow-up, as well as more negative feelings associated with those failed relationships among 251 Mexican American adults when followed 11 years later. The current study assessed reports of negative social interactions using the Inventory of Negative Social Interactions (Lakey, Tardiff, and Drew, 1994). It was expected that those who are found to have high trait resentful embittered personality would also tend to experience more negative social interactions with others.

Another goal of Study 3 was to assess the relationship between resentful embittered personality and trait interpersonal sensitivity, particularly as it pertained to adjustment. Based on their clinical experience, Boyce and Parker (1989) proposed that depressive symptoms, in many cases, seem to be related to a greater tendency to experience high levels of interpersonal stress and sensitivity to perceived or actual criticism or rejection. The Interpersonal Sensitivity Measure (IPSM; Boyce & Parker, 1989) assesses five dimensions of interpersonal sensitivity: interpersonal awareness, need for approval, separation anxiety, timidity, and fragile inner-self. One possible explanation for the proposed link between resentful embittered personality and poor adjustment is that those with high trait embitterment may be more sensitive interpersonally and may misperceive many social interactions as evidence of rejection or criticism. Such a heightened sensitivity to interpersonal situations may create a self-fulfilling prophecy in that the consequences of over-reacting in social situations are likely to have negative effects on relationships. There is some empirical evidence to support the theory that more hostile

individuals have a higher likelihood of misperceiving social expressive cues. For example, Larking, Martin, and McClain (2002) have found that those with higher levels of trait hostility were more likely to incorrectly label facial expressions of “disgust” as being indicative of “anger”, as well as “happy” faces as being “neutral” when using Ekman’s Pictures of Facial Affect procedure (Ekman, 1993). One possibility is that these social misperceptions may be mediated by a heightened sensitivity to interpersonal interactions. It was, therefore, predicted that trait resentful embittered personality would be positively related to interpersonal sensitivity as measured by the IPSM¹. In particular, it was expected that those with higher resentful embittered personality scores would have higher scores on the interpersonal awareness factor of the IPSM, which pertains to sensitivity and apprehension towards personal interactions.

Several studies that have shown that individuals who are depressed tend to have higher levels of interpersonal sensitivity as compared to those who are not depressed, and that interpersonal sensitivity poses a significant vulnerability in the onset, maintenance, and recurrence of depression (Boyce, Hickie & Gordon, 1991; Boyce, Parker, Barnett, Cooney, & Smith, 1991; Boyce, Hickie, Parker, Mitchell, Wilhelm, & Brodaty, 1992; Davidson, Zisook, Giller, & Helms, 1989; McCabe, Blankstein & Mills, 1999; Wilhelm, Boyce & Brownhill, 2004). McCabe et al. (1999) found that interpersonal sensitivity accounted for unique variance in predicting depression, poor self-esteem, and poor academic performance among university students. Boyce, Hickie and Gordon (1991) also found that, independent of the quality of their marital relationships, mothers with high levels of interpersonal sensitivity as a personality style, tended to experience higher and longer durations of postnatal depression following the birth of their first child, as compared to those who possessed a more healthy personality style. An

¹ Note: a positive relationship between the Resentful Embittered Personality and Interpersonal Sensitivity will be indicated by a negative correlation between the OPQ and IPSM.

important goal for Study 3 was to demonstrate that resentful embittered personality is not only associated with interpersonal sensitivity, but is able to predict unique variance in psychological distress such as depression, as well as overall wellbeing. As well, it was expected that resentful embittered personality would moderate interpersonal sensitivity to predict both distress and wellbeing.

Hostility and stress. A final area of interest for examination in Study 3 was that of stressful life events as they relate to resentful embittered personality. Many formulations of psychopathology assume a diathesis-stress model in which individual predispositions interact with stressful life events, which, in turn, lead to the onset of psychological symptomatology (e.g., Billings, Cronkite & Moos, 1983; Brown & Harris, 1978; Lloyd, 1980). Interpersonal stress has been found to be one of the most significant types of stressors among all ages, from adolescents (e.g., Rudolph, Hammen, Burge, Lindberg, Herzberg et al., 2000), to the elderly (e.g., Rook, 1984). Of particular interest is the specificity of the types of life stresses that may be more related to resentful embittered personality styles. Previous research has found that certain personality styles are especially vulnerable to either negative interpersonal events or achievement events in predicting depression (see Blatt and Zuroff, 1992 for a review as it pertains to self-criticism/autonomy constructs). Hammen and her colleagues (1985) have shown that those with interpersonal dependent personality traits experienced higher levels of depression in response to interpersonal life stressors than to achievement related stressors. Later, Hammen (1992) added that one pathway to depression results from complex transactions among cognitive, stress, and interpersonal variables that are established early on in life from maladaptive attachment relations and may be reinforced by continued difficulties in peer, family and other social relationships as the person develops. Moreover, stressful interpersonal experiences may erode effective social coping and problem solving skills, which may in turn, generate further

interpersonal difficulties, and ultimately lead to depressive states. It is proposed that resentful embittered personality styles reflect such maladaptive interpersonal strategies, which also reinforce both depression and hostile reactions when faced with interpersonal stress. Given that interpersonal domains are particularly salient for individuals with high levels of resentful embitterment, after all, the embitterment that is tapped with the REPS focuses mostly on how they feel unjustly victimized or targeted by others, we would expect that interpersonal stress from negative social interaction would be particularly concerning for them. In addition to its relationship to interpersonal stress, those with resentful embitterment are expected to experience higher levels of negative life event stress as measured by the Life Experiences Survey (Sarason, Johnson & Siegel, 1978), as compared to those who are lower in resentful embittered personality. Moreover, the diathesis-stress model was further tested in this study by assessing the extent to which the REPS moderated other measures of stress (i.e., LES & INSI) to predict depression and well-being.

Hypotheses: Study 3

- 1) A significant positive correlation was predicted between resentful embittered personality and depression.
- 2) A significant positive correlation was predicted between resentful embittered personality and negative interpersonal interactions.
- 3) A significant positive correlation was predicted between resentful embittered personality and interpersonal sensitivity (as indicated by a negative correlation due to reverse scoring with the IPSM).
- 4) A significant positive correlation was predicted between resentful embittered personality and negative life events.
- 5) A significant negative correlation was predicted between resentful embittered personality and total multidimensional adjustment, as well as the specific subscales of self-acceptance, positive relations with others, autonomy, and environmental mastery.

- 6) Resentful embittered personality would predict unique variance in depressive symptoms and wellbeing after other personality variables have been accounted for.
- 7) Resentful embittered personality would moderate other personality measures to predict depression and wellbeing.
- 8) Resentful embittered personality would predict unique variance in depression and wellbeing over and above life event stress and negative social interactions.
- 9) Resentful embittered personality would moderate stress measures such as negative life event stress and/or negative social interactions to predict depression and wellbeing.

Method: Study 3

Sample Characteristics: Study 3

158 student participants were recruited from the Undergraduate Research Participant Pool at York University and using the exact same procedures as with the previous studies. The sample comprised 85 men and 73 women. For the men, 90% were single and 10% were either married or living common law; 30% of the males stated they were unemployed, and another 65% were working part time. 22.5% of this male sample had completed post-secondary education. In comparison, 96% of females were single and 4% married or in a common law relationship. 23% were unemployed, 73% worked part time and 4% held full time jobs. 37% of the female sample completed post-secondary education.

A MANOVA was performed to evaluate whether there was a multivariate effect of sex on the variables included in Study 3. A multivariate sex effect was not found for these variables $F(16, 119) = 1.41, p = .15$. As such, all statistical analyses included the full sample as well as men and women separately solely for comparison purposes. Also, independent t-tests were performed to determine whether there were statistically significant differences in the mean REPS scores for this sample compared to previous samples, and all results were non-significant indicating that there were no differences between studies on mean REPS scores.

Materials: Study 3

Participants were given a package of questionnaires which included the REPS, the Multidimensional Adjustment Scale (Ryff, 1989), the Center for Epidemiological Studies-Depression Scale (Radloff, 1977), the Inventory of Negative Social Interactions (Lakey, Tardiff, & Drew, 1994), the Life Experiences Survey (Sarason, Johnson & Siegel, 1978), and the Interpersonal Sensitivity Measure (IPSM; Boyce & Parker, 1989). The scales used in Study 3, and their psychometric properties, are described briefly below and are provided in Appendix C. Note, the REPS will not be described in Study 3 as it was described in detail in Study 1.

Multidimensional Adjustment Scale. The Multidimensional Adjustment Scale (RMAS; Ryff, 1989) is a 54-item scale that assesses six facets of psychological well-being. It was constructed to measure the dimensions of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Participants responded using a six-point Likert rating procedure, ranging from (1) strongly disagree to (6) strongly agree. Items from each of these subscales were also selected to form a parent scale consisting of 20 items. This enables researchers to obtain a quick assessment of overall psychological well-being.

Centre for Epidemiological Studies-Depression Scale. The CES-D (Radloff, 1977) is a 20-item measure which assesses current depressive symptoms in the general population. It taps various aspects of depression but emphasizes the affective component (Gotlib & Cane, 1989). Participants rated each item on a four-point scale (from 1 for “none of the time” to 4 for “all of the time”) indicating the degree to which they experienced each symptom in the previous week. Research indicates that the CES-D, relative to other well-known measures, may be more effective at detecting differences in the severity of depressive symptoms among students (Santor, Zuroff, Ramsay, Cervantes & Palacois, 1995). The scale has good internal consistency (.85-.90)

and split-half reliability (.77-.92; Corcoran & Fischer, 1987), as well as acceptable validity (Gotlib & Cane, 1990; Santor, Zuroff, Ramsay, Cervantes & Palacois, 1995).

Inventory of Negative Social Interactions. The INSI (Lakey et. al., 1994) is a 40-item unidimensional measure of a wide range of negative social events including overt criticism, lack of recognition, and betrayal. Respondents indicated the frequency of each negative social interaction over the past month on a five-point scale ranging from “never” to “about every day”. Lakey et al. (1994) reported that the internal consistency of the scale was .92 and .93, and the one-week test-retest reliability was .68 when administered to a sample of students.

Life Experiences Survey. The Life Experiences Survey (LES; Sarason, Johnson & Siegel, 1978) is a 60-item scale which measures the personal impact, both positive and negative, on various life stress or life change events, which have occurred within the last year. The scale shows good reliability and many studies have confirmed its validity (Sarason, Johnson & Siegel, 1978).

Interpersonal Sensitivity Measure. The IPSM (Boyce & Parker, 1989) was developed to measure interpersonal sensitivity. Based on their clinical experience, Boyce and Parker (1989) believed the construct was a complex one that required several dimensions to understand it fully, as it pertains to depression. As such, they created a 5-factor scale which taps the following dimensions of interpersonal sensitivity: (a) interpersonal awareness: defined as “a sensitivity to interpersonal interaction and the perceived impact that an individual has on another; (b) need for approval: which contains items that reflect a wish to make others happy and an avoidance of interpersonal rejection; (c) separation anxiety: whereby individuals are overly sensitive to the threat of the integrity of their personal bonds; (d) timidity: reflecting an inability to behave assertively in interpersonal interactions; (e) fragile inner self: which reflects a belief that there is something about them which is inherently unlikable and should be hidden from

others. This scale has good internal consistency for the whole scale ($\alpha = 0.8$) and good stability ($r = 0.70$). In addition, the scale is positively related to depression, but shows good sensitivity to mood changes, whereby scores on this measure significantly improve when mood states improve (Boyce & Parker, 1989).

Analyses: Study 3

Psychometric and demographic analyses were first conducted on scale-related items to insure the robustness of the data. This included means, standard deviations, and evaluation of the normality of the data. In addition, all scales were checked for anomalous results. Due to multiple correlations and the risk of Type I error, faulty interpretations may also be mitigated by incorporating the Bonferroni correction. Thus, the Bonferroni adjusted alpha for this study would be $<.003$.

Specific analyses for Study 3 data included correlations and hierarchical regression analyses using SPSS v20. Main effects predicting depressive symptomatology and adjustment were analyzed hierarchically by combining the personality measures in one block, and then adding the resentful embittered personality measure in the second block to evaluate whether it contributed significantly to the prediction of the aforementioned dependent measures above and beyond the previous block. Two-way interactions were also explored in the prediction of depression and wellbeing, whereby cross-product terms were created for each interaction by taking the product of the standardized independent variables to create new variables that were then entered together into the third block.

Results: Study 3

Reliabilities

As seen in Table 4 for each scale, the Cronbach's alpha (Cronbach, 1951) was calculated to estimate internal reliabilities. All scales showed acceptable to good internal reliability,

ranging from .64 on the Need for Approval subscale of the IPSM to .95 for the RMAS total score. The REPS and INSI showed particularly strong reliabilities, at .92 each, bettered only by the RMAS total scale at .95.

Zero Order Correlation Analyses

Depression and resentful embittered personality. Hypothesis 1 predicted a positive correlation between resentful embittered personality and depression among university students as measured by the CES-D. Table 5 below displays the correlations between the REPS and all other measures included in this study, for the full sample as well as separated by sex. This table shows that the REPS to be consistently and highly correlated with depression, whether it be for the full sample, or men or women separately ($r = .60$; $r = .53$; $r = .67$, respectively), accounting for 36% of the variation in depression scores for the whole sample, and 28% and 45% of variation in depression scores for men and women, respectively.

Negative social interactions and resentful embittered personality. Hypothesis 2 also predicted that resentful embittered personality would be positively related to higher self-reported interpersonal stress. Using the Inventory of Negative Social Interactions (INSI) as the measure of negative interpersonal adjustment, the resentful embittered personality was found to be a robust predictor of negative social adjustment. As with the relationships between the REPS and depression, the REPS was more strongly correlated with self-reported negative social interactions for women than they were for men, but both sexes showed significant positive relationships between the REPS and the INSI, providing robust support for the predictions in Hypothesis 2. The REPS was found to be significantly related to negative social interactions for the whole sample as well as for men and women separately ($r = .44$; $r = .37$; $r = .54$, respectively).

Interpersonal sensitivity and resentful embittered personality. Hypothesis 3 indicated that there was an expected positive relationship between interpersonal sensitivity and resentful embittered personality. Note that a positive relationship was indicated by a negative correlation due to the fact that high IPSM scores are indicative of low interpersonal sensitivity, and vice versa. In support of hypothesis 3, IPSM was found to be highly significantly and positively related to resentful embittered personality for the whole sample ($r = -.58$), as well as for both men ($r = -.52$) and women ($r = -.64$) separately. In addition, outside of the need for approval subscale for women and the timidity subscale for men, all other subscale scores for the IPSM were significantly related to the REPS as shown in Table 5.

Life event stress and resentful embittered personality. A positive relationship between life event stress and resentful embittered personality was expected as indicated in hypothesis 4. However, hypothesis 4 was not supported by the data, which indicated that the REPS and life events were uncorrelated for the full sample, as well as for men and women separately, as shown in Table 5.

Wellbeing and resentful embittered personality. The REPS was predicted to be negatively correlated with total multidimensional wellbeing, as well as negatively correlated to all of the subscales subsumed under the Multidimensional Adjustment Scale. As illustrated in Table 5, the REPS was found to be strongly negatively related to the total Multidimensional Adjustment Scale for the full sample ($r = .65$) as well as for men ($r = .55$) and women ($r = .62$) separately. A review of Table 5 shows that with one exception, the Personal Growth subscale for the male sample, all the subscales of the RMAS were negatively related to resentful embittered personality.

Multiple Regression Analyses – Interpersonal Sensitivity and Resentful Embittered Personality predicting Depression

The hypothesis that resentful embittered personality would predict depression over and above other personality variables in the study was tested for the full sample, as well as for men and women separately. In addition, exploratory two-way interactions were examined in the regression analyses to assess whether resentful embittered personality may moderate other personality or stress variables to influence depressive outcomes. This was accomplished through the use of a hierarchical regression technique with cross-product interaction terms (Cohen, 1968).

The first set of regression equations included the following variables entered in the order presented below. The first block consisted of the Interpersonal Sensitivity measure, followed by the second block, which contained the resentful embittered personality measure. This analysis was conducted for the full sample, as well as for men and women separately.

As can be seen from Table 6 below, Hypothesis 6 was supported by the regression analyses performed. Interpersonal sensitivity was a significant predictor for the full sample [$F(1, 155) = 51.60, p < .001$], as well as for men [$F(1, 70) = 34.92, p < .001$], and women [$F(1, 83) = 18.56, p < .001$], accounting for 25%, 18.3% and 33.3% of variation in self-reported depression in the total sample, and men and women respectively.

Once the individual predictor variables were entered as a block in the first step of the regression equations, the next block contained the resentful embittered personality measure. Resentful embittered personality accounted for an additional 14.6%, 12.9% and 15.1% of variance in total sample [$F(1, 154) = 37.18, p < .001$], men [$F(1, 82) = 18.62, p < .001$], women [$F(1, 69) = 32.38, p < .001$], depression scores, respectively. In summary, Hypothesis 6

was fully supported by the multiple regression analyses that predicted the unique variance in depression scores by resentful embittered personality, over and above that accounted for by the Interpersonal Sensitivity personality measure.

Exploratory Moderating Effects of REPS with Interpersonal Sensitivity predicting Depression

As outlined in the methods recommended by Cohen (1968), further regression analyses examined the cross-product interaction effects between the REPS and the 5 factors of the IPSM in predicting depression. As recommended by Aiken and West (1991) as well as Judd and McClelland (1989), all predictor variables used in interaction terms for regression analyses were subjected to a centering procedure to reduce the effects of multicollinearity, and consequently, increasing the interpretability of the results. The centering procedure consists of the subtraction of the mean score of the independent variables from the individual scores of that measure. The newly computed centred scores were then incorporated into the predicted interaction terms by multiplying the individual centred scale scores and entering the interactions into the regression as predictors.

The multiple interactions involving resentful embittered personality and all the other predictors involved in this study were entered into the 2nd block of the regression equation after all main effects were entered in the first block. Non-significant interactions were then removed sequentially using a manual backwards elimination method. After main effects were found for resentful embittered personality and interpersonal sensitivity, when all predictors were placed in the same block (see Table 6), no significant interactions were found in predicting depression for the full sample or for men and women separately. As such, Hypothesis 7 regarding the moderating effects of the REPS with other personality measures in predicting depression was not supported by the analysis.

Multiple Regression Analyses – Interpersonal Sensitivity and Resentful Embittered

Personality predicting Wellbeing

As with the previous multiple regression analysis predicting depression, the same set of predictors were used in two blocks to predict wellbeing as measured by the Multidimensional Adjustment Scale. With respect to the first block, interpersonal sensitivity accounted for significant variation in multidimensional adjustment (well-being) scores for the full sample [$F(1, 155) = 69.24, p < .001$], as well for both men [$F(1, 83) = 30.46, p < .001$] and women [$F(1, 70) = 40.29, p < .001$] separately, predicting 30.9%, 26.8% and 36.5% and of variation in wellbeing scores respectively. Resentful embittered personality was entered in the second block, and added an additional 7.5%, 10.3% and 5.3% of predicted variation in wellbeing scores among the full sample [$F(1, 154) = 18.69, p < .001$], men [$F(1, 82) = 6.43, p = .013$] and women [$F(1, 69) = 13.43, p < .001$] participants respectively and providing further support for Hypothesis 6 pertaining to the ability of the REPS to uniquely predict adjustment and well-being above other personality measures.

Exploratory Moderating Effects of REPS with Interpersonal Sensitivity predicting

Wellbeing

As with the previous exploratory regression analyses predicting depression, similarly, resentful embittered personality and all other predictor variables were entered in the first block, followed by all possible interaction terms with the REPS as one of the cross-product terms with every possible IPSM factor. The final result of the regression analysis from the second block used the same manual backwards elimination method to determine which interactions were significant in predicting multidimensional adjustment after the main effects in the first block were accounted for. No significant interactions were found between the REPS and any of the IPSM subscales in predicting wellbeing for the full sample, for men or for women. Thus,

Hypothesis 7 was not supported in the prediction that moderating effects would be found between the REPS and personality measures such as the IPSM in predicting wellbeing.

Multiple Regression Analyses – Stress and Resentful Embittered Personality predicting Depression

The following set of regression analyses evaluating the multiple hierarchical and exploratory interaction effects of the stress variables with embittered personality predicting depression, were performed for the total sample as well as for men and women in this sample. The first regression equation included the following variables entered in the order presented below. The first block consisted of the Inventory of Negative Social Interactions together with the measure of life event stress (LES), followed by the second block that contained the resentful embittered personality measure.

As can be seen from Table 7, Hypothesis 8 was fully supported by the regression analyses performed, for the total sample as well as for both women and men in this sample. The combined set of stress variables, including negative life event stress as well as negative social interactions, was a significant predictor of depression for the full sample [$F(2, 133) = 18.43, p < .001$], as well as for both men [$F(2, 71) = 6.47, p = .003$] and women [$F(2, 59) = 14.93, p < .001$]. Together these stress-related variables accounted for 15.4% , 33.6% and 21.7% and of variation in the full sample and men's and women's self-reported depression scores respectively. The second block contained the resentful embittered personality measure. Resentful embittered personality was found to have accounted for an additional 19.7%, 18.9% and 17.9% of variance in the full sample [$F(1, 132) = 44.51, p < .001$], for men's [$F(1, 70) = 20.13, p < .001$] and for women's [$F(1, 58) = 18.43, p < .001$] depression scores, respectively, over and above variation accounted for by the stress measures. In summary, Hypothesis 8 was supported by the multiple

regression analyses indicating that the REPS would be able to account for unique variance in depression scores above and beyond those accounted for by the stress variables in this study.

Exploratory Moderating Effects of REPS with Stress predicting Depression

Following the multiple regression analysis for main effects of stress and resentful embittered personality, all possible interactions between REPS and the stress measures were entered in the second block to identify possible moderating effects of the REPS in predicting wellbeing for the full sample as well as for both men and women in this sample. The second block used manual backwards elimination to determine which interactions were significant in predicting multidimensional adjustment after the main effects in the first block were accounted for. As can be seen in Table 7, main effects were found for resentful embittered personality and several other stress variables for both sexes and the full sample. When all possible interactions were explored between resentful embittered personality and the two stress related variables (LES, and INSI), only the interaction of REPS x LES was found to be significant for the full sample [$F(1, 131) = 8.27, p = .005$], accounting for an additional 3.5% of variation in depression scores, to a total of 44.9% of variance in depression for the full sample. Thus, hypothesis 9 was partially supported by this analysis and is illustrated in Figure 1. In review of the displayed interaction in Figure 1, it can be seen that those with high resentful embittered personality traits seem to experience much higher levels of distress in the face of increased negative life stress as compared to those with low resentful embittered personality. Those with low levels of resentful embittered personality tend to experience much lower levels of self-reported depressive symptoms when faced with negative life events, thus, seeming to buffer the effect of stress.

Multiple Regression Analyses – Stress and Resentful Embittered Personality predicting Wellbeing

In addition to evaluating the unique effects of the REPS in predicting depression after controlling for stress related variables, the following set of multiple regression analyses was performed to predict well-being, for the full sample, and for men and women separately. The first block consisted of the Inventory of Negative Social Interactions together with the measure of negative life event stress (LES), while the second block contained the resentful embittered personality measure.

As can be seen from Table 8, Hypothesis 8 was further supported by the regression analyses performed, for the full sample, and for men and women separately, in that the REPS significantly predicted well-being after other stress variables were controlled. The combined stress variables of negative life event stress (LES) and negative social interactions (INSI) was a significant predictor of wellbeing for the full sample [$F(2, 133) = 8.23, p < .001$], as well as for men [$F(2, 71) = 4.33, p = .017$] and women [$F(2, 59) = 3.76, p = .029$] in this sample. Together these stress-related variables accounted for 11%, 10.9% and 11.3% of variation in self-reported wellbeing for the full sample, and for men and women respectively. To assess the ability of the REPS to predict unique variation over and above that accounted for by stress alone, the second block contained the resentful embittered personality measure on its own. Resentful embittered personality was found to have accounted for an additional 19.8%, 19.3% and 21.4% of variance in total sample [$F(1, 132) = 37.73, p < .001$], as well as for men's [$F(1, 70) = 19.32, p < .001$] and for women's [$F(1, 58) = 18.42, p < .001$] wellbeing scores, respectively. In summary, Hypothesis 8 was further supported by the multiple regression analyses predicting that the REPS would account for unique variance in wellbeing after controlling for stress related variables in this study.

Exploratory Moderating Effects of REPS with Stress predicting Wellbeing

Following the multiple regression analysis for main effects of stress and resentful embittered personality, all possible interactions between REPS and the stress measures were entered in the second block to identify possible moderating effects of the REPS in predicting wellbeing for both men and women as well as the full sample. The second block initially contained REPS x INSI as well as REPS x LES and later utilized the backwards elimination technique to determine which interactions were significant in predicting wellbeing after the main effects in the first block were accounted for. As can be seen in Table 8, main effects for stress variables and resentful embittered personality were found for the full sample and men and women separately. After employing the backwards elimination technique for the full sample, and for each sex, only the interaction of REPS X INSI for the full sample was found to be significant $F(1,131) = 6.13, p = .015$, which accounted for an additional 3.1% of variation in wellbeing scores. Hypothesis 9, thus, was further supported by finding significant moderating effects of the REPS in predicting wellbeing and is illustrated in Figure 2 below. Observing the illustration of this interaction, it can be clearly seen that those individuals with high levels of resentful embittered personality had significantly less overall wellbeing in response to the stress of negative social interactions, than those who were lower on resentful embittered personality. Conversely, it appears that low levels of resentful embittered personality seemed to buffer the effects of stress from negative social interactions to preserve wellbeing, relative to those with high traits of resentful embittered personality in this sample.

Discussion: Study 3

The main purpose of Study 3 was to further evaluate the potential clinical importance of high trait resentful embitterment by assessing its direct and indirect effects (i.e., moderating effects) on depression and wellbeing, thereby further extending the evaluation of validity of the

REPS. The extent to which these relationships would hold even after controlling for other trait and stress related variables in predicting negative adjustment and wellbeing was also assessed in this study. Finally, relationships between embittered personality and both interpersonal and life event stress as well as interpersonal sensitivity were evaluated, with the expectation that embittered personality would be positively related to all of these interpersonal and stress related variables.

This study provided clear evidence that the resentful embittered personality did indeed predict both high levels of self-reported depression, as well as lower levels of positive wellbeing as measured the Ryff Multidimensional Adjustment Scale (RMAS). High positive correlations between trait embitterment and self-reported depression for both men and women accounted for 28% and 45% of explained variance in depression scores, respectively. It was not necessarily unexpected to see evidence of higher levels of depression among those with high trait resentful embitterment, given previous unpublished replicated findings. However, this was the first study to show that resentful embittered personality traits also significantly undermined positive wellbeing. Moreover, the deleterious effects of embittered personality on both depression and wellbeing were so robust that these associations were still strong despite controlling for all other personality and stress variables in this study. In short, those with high levels of trait embitterment are much more likely to be clinically depressed as well as generally unhappy across a wide range of dimensions of well-being that were proposed by Ryff (1989) and include: self-acceptance, positive relations with others, environmental mastery, autonomy, purpose in life, and personal growth. Hypothesis 5 specifically predicted significant negative bivariate relationships between the REPS and four of the six RMAS factors including self-acceptance, positive relations with others, environmental mastery, and autonomy. With the exception of the failure of the personal growth factor for males to reach significance, otherwise correlational

analyses showed that the REPS was consistently negatively correlated with all other dimensions of psychological well-being and generally was even stronger for females than it was for males. Hypothesis 5 was further supported in that those four factors evidenced the highest correlations with the REPS, whereas personal growth and purpose in life generally had the lowest correlations for both male and female samples. The highest correlations were between the REPS and the environmental mastery and self-acceptance facets of the RMAS, both evidencing correlation coefficients of $r=.55$ for the full sample. These high correlations suggest that people with high levels of trait resentful embitterment may in fact be somewhat aware that they are not particularly efficacious at navigating their social environments and may, at least on some level, be able to self-reflect and consequently have difficulty accepting themselves given their deficits. Although considerable research has supported relationships between general personality variables and their impact on both subjective and psychological well-being (e.g., Keyes, Schmotkin & Ryff, 2002), this study confirms Maan Diong et al.'s (2005) findings regarding the direct negative relationship between measures of trait embitterment and its negative impact on psychological well-being and adjustment. The high correlations between the REPS and most of the facets of the multidimensional wellbeing measure (RMAS) suggest that those with highly resentful-embittered styles also undermine their own ability to experience happiness in almost all facets as defined by Ryff (1989) including autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance, in addition to being highly related to distress and depression.

One of the putative mechanisms by which resentful embittered personality may have such negative psychological and interpersonal effects is because these individuals may be much more sensitive to interpersonal criticism as compared to others. Thus, hypothesis 3 predicted that individuals with high trait oppositionality would show higher scores on a measure of

interpersonal sensitivity. Indeed, individuals with high resentful embittered personality traits did in fact show higher levels of interpersonal sensitivity as measured by the IPSM (Boyce and Parker, 1989) total score as well as its five subscales (i.e., interpersonal awareness, need for approval, separation anxiety, timidity, and fragile inner self) with respect to the full sample. What was specifically predicted was the REPS would be highly related to the interpersonal awareness factor of the IPSM, which was described as the perceived impact that an individual has on another in the context of a trait-like sensitivity to interpersonal interaction. For both men and women, the REPS was highly positively related to the interpersonal awareness factor of the IPSM. For females, the highest subscale correlation was with the separation anxiety factor, while interpersonal awareness was second highest, whereas for males it was the reverse, though both of these subscales were highly significant for both sexes. For both males and females, the third most significant correlation with the REPS was the fragile-self factor. A recent study by Kesting, Bredenpohl, Klenke, Westermann and Lincoln (2013), examined the relationships among social stress, self-esteem, and paranoid ideation in a normal sample and found that the effects of social stress was mediated by decreases in self-esteem to predict increases in paranoid beliefs. This study by Kesting et al. (2013) shows the intricate interdependence between these factors similar to trait interpersonal sensitivity and its very strong relationship with resentful embittered personality.

The relationships between trait embitterment and interpersonal stress as measured by the Inventory of Negative Social Interactions (INSI) was also assessed in Study 3. Correlational and multiple regression results supported this prediction for both sexes and for the combined sample. Once again, the strongest effects were witnessed with women as compared to the men in this sample, though both were statistically significant. These findings lend further support to the

literature on the effects of expressed resentment and hostility on interpersonal relationships including among couples and other relationships (e.g., Edwards, Bello, Brandau-Brown, & Hollems, 2001; Miller et al., 1995; Saavedra et al., 2010; Woodin, 2011). The results further support the validity of the REPS as a measure related to trait hostility that has very similar predictive value for negative interpersonal effects. While this study did not evaluate the longitudinal effects of trait embitterment on interpersonal outcomes, the longitudinal outcome study by Miller et al. (1995) suggests that the negative interpersonal impacts of this trait were still evident in an 11-year follow up.

Though it was predicted that resentful embittered personality would be also positively related to negative life event stress, this prediction was not supported. Overall, the REPS was not directly related to LES for either sex, nor for the total sample. A major life event stress may be less relevant to this construct as compared to the daily life and interpersonal stress brought on by issues related to embittered personality styles. Thus, resentful embittered personality traits may have the greatest effects on interpersonal stresses, as was found with the positive correlations with the INSI and may be specific to those forms of stress only, and not to general life event stress. This interpretation would be consistent with the interpersonal stress model of depression described by Hammen (1992), Blatt and Zuroff (1992) among others. Specifically, it is likely that a highly resentful embittered individual would be more sensitive to and affected by interpersonal types of stressors as compared to other types of life event stressors. Hence this study may have coincidentally shown some discriminant validity in identifying significant relationships to interpersonal stress, but not necessarily to other life event stress. Another explanation for the finding of low life event stressors among these embittered individuals may be that students in general may be too inexperienced to have been able to sample enough life stress in the current year given their relatively young ages. For example, it is unlikely that students

would have considerable experience with life stressors such as pregnancy, job loss etc., at their developmental stage. Most students who go to university would be fairly insulated from the life stressors of common working adults with families, thus limiting the specificity of the measure. Although there are 10 items specifically tailored for students, perhaps there were not enough items to reach significance in this sample. Future research on the resentful embittered personality would benefit from trying to replicate as well as further tease apart whether specific interpersonal types of stressors, as compared to non-interpersonal stressors, interact differentially with embittered personality to confer greater risk for experiencing depression and other types of distress.

Taken together, the constellation of these three highly related factors of the IPSM and the REPS may be interpreted cohesively in that those with high trait resentful embitterment may believe that there is something inherently unlikeable about themselves, which they should try to hide from others in interpersonal interactions (fragile inner self); they are generally concerned that these negative traits may in fact push others away (separation anxiety) if they are found out, which in turn makes those with trait resentful embitterment very prone to persistently monitor all social interactions for latent signs that their flaws may be sensed by others and that interpersonal rejection is impending (interpersonal sensitivity). In short, individuals with high trait embitterment appear to be those who are quite sensitive and needy in relationships despite the self-defeating strategies they seem to employ in acquiring and maintaining these relationships. The significant relationships between the REPS and these three interpersonal sensitivity factors are very much in line with interpersonal theories of depression (e.g., Blatt et al., 2001) and overlap particularly with anaclitic (sociotropic) depressive styles. Moreover, such styles may indeed set up the overly sensitive individual to preemptively push others away (i.e., trait resentful embitterment) for fear of accurately or misperceived rejection, which, ironically may

cause others to reinforce critical or rejecting behaviour towards them (Coyne, 1976; Gurtman, 1986; Jacobson, 1971).

Despite the lack of a direct correlation between resentful embittered personality and life event stress, one of the ways in which the REPS seems to function is as a moderator of both interpersonal stress and life event stress in predicting depression and wellbeing. In this regard, two significant interactions were found: one in the prediction of depression and one in the prediction of wellbeing for the full sample. In both cases, high resentful embittered personality seemed to have had an exacerbating effect on depression in the face of negative life events, as well as seriously reducing overall wellbeing when there were increases in the stress of negative social interactions. While the moderating effects of resentful embittered personality has not been explicitly tested in the literature, Felsten (1996) found that neurotic hostility, as opposed to expressive hostility, predicted both symptoms of depression, as well as higher levels of overall stress, and specifically interpersonal stress. The present study adds to this by showing that neurotic forms of hostility, such as resentful embittered personality, significantly compound depression in the face of stress. Moreover, there are no known studies that examine the moderating effects of embittered or even hostile personality on wellbeing. Therefore, this study clearly makes a significant contribution by showing that embittered personality not only increases distress, but also significantly reduces overall psychological health, happiness, and wellness.

A final aim of Study 3 was to establish that the REPS was predictive of depressive symptoms and well-being over and above other personality measures. Thus, hierarchical regression analyses were used to predict measures of adjustment with the IPSM entered in the first block, followed by the REPS in the second block for both males and females separately. Overall, hypothesis 6 was fully supported by the analyses showing that the REPS did effectively

predict adjustment for both sexes. Generally, the additional variance accounted for by the REPS was higher when predicting depression ($R^2 = 12.9\%$ and 15.1% for men and women, respectively) than it was for predicting well-being ($R^2 = 5.3\%$ and 10.3% for men and women, respectively). Nevertheless, given the conceptual overlap between facets of the Interpersonal Sensitivity Measure and that which underlies the Resentful Embittered Personality Scale, it is important to show that the REPS adds substantial contribution in predicting psychosocial adjustment. What was unexpected however, was the lack of evidence for the moderating effects of the REPS in predicting adjustment. Subsequent exploratory analyses revealed moderating effects of the REPS for both sexes, but these did not hold up after controlling for main effects in the previous blocks. Specifically, interpersonal sensitivity was not found to interact significantly with resentful embittered personality to predict either depression or wellbeing. Both the IPSM and the REPS evidenced good to excellent internal reliabilities, thus the lack of a moderating effect was unlikely due to psychometric issues with respect to either of these measures. It should be noted that the correlation between total scores of the IPSM and REPS were high ($r=.58$) suggesting that there is significant shared variance and possibly conceptual overlap and shared variance between these two constructs which may have prevented finding significant moderating effects of the REPS with the IPSM.

Although almost all of the goals and hypotheses of this study were confirmed, thus underscoring the significant interpersonal and clinical implications of the resentful embittered personality trait within this nonclinical population, there remain a number of limitations that must be recognized. First, this study was limited by the design in that it utilized a static, cross-sectional design that was not capable of ascertaining whether these traits were related to maturational life course issues or were in fact stable traits with significant or worsening clinical course implications over time, as other longitudinal studies assessing similar constructs have

implied (e.g., Miller et al., 1995). Moreover, as Keyes et al. (2002) have indicated, the concept of well-being as defined by the RMAS may reflect largely Western and possibly middle-upper class definitions of what living a satisfying life means, which may be evaluated against different criteria in other cultural populations.

Though the first three studies did much to support the construct validity and clinical utility of understanding the resentful embittered personality, the fourth study in this research program was designed to examine the predictive validity of the REPS, six months after baseline in terms of effects within the individual, as well as effects of resentful-embitterment on significant others. The final study evaluated couples both before and after the birth of their first child – a life event that was chosen given that it adds significant stress and tests marital relationships. The questions that are addressed in Study 4 are: are those who score highly on resentful-embitterment at greater risk for increased depression six months after baseline and do they report greater marital problems three months after the birth of their first child?

Study Four

Rationale: Study 4

The first weeks to months following the birth of a child are one of the most challenging life stressors for a family and, as such, test both personal and relational capacities to cope. It is estimated that up between 8 to 26% of North American women experience clinically significant levels of post-partum depression within the first year post-delivery (Sword, Watt, Krueger, Sheehan, Lee et al., 2000) though it may often go undetected, under-reported, and is often untreated (O'hara, 2009). A survey by Watt, Sword, Krueger & Sheehan (2002) assessed levels of depression among 875 mothers in South Western Ontario four weeks after being discharged from hospital and found that 15% reported significant depressive symptoms. Postpartum depression has a profound impact not only on the mother, but also on the newborn infant (Beck, 1995) and on the family as a whole (Murray, 1992). Though biological factors can confer vulnerability, environmental and psychosocial factors also contribute significantly to predicting depression among new mothers. For example, Beck (1995) noted that in addition to a previous history of depression and anxiety, as well as life and childcare stress, interpersonal factors such as marital dissatisfaction and lack of social support were also strong predictors of postpartum depression. Akincigil, Munch and Niemczyk (2010) found that the quality of the marital relationship predicted maternal depression, even after controlling for all other noteworthy risk factors. Other studies have shown that premarital functioning and family expectations predicted postnatal family cohesion (McHale, Kasali, Rotman, Talbot, Carleton & Lieberman, 2004). Given how important marital relationships are in determining the likelihood of experiencing postnatal depression, the resolution and mitigation of embitterment and hostility within the relationship are likely to be very important processes to maintain the functioning of the marital as well as family unit during such a stressful period.

Previous studies have reported measures of hostility to be negatively related to marital satisfaction among newlywed couples (e.g., Newton, Kiecolt-Glaser, Glaser, & Malarkey, 1995). Indeed, recent research has shown that hostility early in marital relationships led to higher rates of divorce (Rogge, Bradbury, Hahlweg, Engl, & Thurmaier, 2006) and the angry hostility facet of neuroticism predicted self-ratings and partner ratings of marital dissatisfaction (Renshaw, Blais, & Smith, 2010). Others have suggested that it is the successful resolution of difficulties related to expressing and dealing with hostility that differentiates long-term marriages from short-term marriages (Hafner & Spence, 1988). Following this same line of reasoning, the fourth study examined resentful embittered personality in the context of marriage during the transitional period to parenthood.

Wallace and Gotlib (1990) noted that marital adjustment during this period of transition is affected by a confluence of factors including infant temperament, coping, and individual personality characteristics. Some have even described the transition to parenthood as analogous to a "crisis event" (Dyer, 1963; LeMasters, 1957). More recently, Pacey (2004) noted that a wide body of international evidence has pointed to the significant and detrimental impact that new parenthood has on the emotional, physical and material well-being of the couple, as well as the quality of life of the family within the first year after birth in particular.

Researchers have begun to examine factors associated with both positive and negative changes experienced by new parents (e.g., Belsky, Lang, & Rovine, 1985; Belsky, Spanier, & Rovine, 1983; Wright, Henggeler, & Craig, 1986). In general, the research has indicated that satisfaction with marriage tends to decrease modestly following the initial "honeymoon period" (i.e., the first month postpartum; Belsky et al., 1995; Belsky et al., 1993; Wallace & Gotlib, 1990). Moreover, this decreased satisfaction tends to be more pronounced for wives than it is for husbands (Belsky et al., 1983; Wallace and Gotlib, 1990). Being cognizant of the moderating

effect of stressful situations on personality, the fourth study examined whether resentful embittered personality was related to relationship-specific attributional styles and adjustment among married couples who have recently given birth to their first child. One of the goals of the present study was to examine whether the resentful embittered personality style (as measured by the REPS) is an important personality variable that underlies couples' vulnerability to experience marital distress during the stressful transition to parenthood.

A related goal was to examine whether the link between resentful embittered personality and marital adjustment is influenced by relationship attributions of other-blame (characterized by global, stable, and intentional negative personality characteristics). Several studies have indicated that the tendency to attribute blame to the spouse is usually associated with poor marital adjustment (Fincham & Bradbury, 1992; Lussier, Sabourin & Wright, 1993; Sabourin, Lussier and Wright, 1991). For example, the relationship between attributions for spouses' behaviours and marital adjustment among couples was assessed by Sabourin, Lussier and Wright (1991), who found that global attributions of spousal blame were negatively associated with marital satisfaction.

Subsequently, Lussier, Sabourin, and Wright (1993) found support for the "entailment model" of attribution. Using path analysis, they found that the paths among causality, responsibility, blame, and marital adjustment confirmed the mediating role of responsibility and blame attributions. Similarly, Fincham and Bradbury (1992) found that spouse's responsibility attributions were positively related to reported anger, displayed anger, and displayed complaining. In sum, if it can be said that one of the hallmarks of successful coping is the ability to make attributions which facilitate problem solving and persistence in the face of stress (Lazarus & Folkman, 1984), then it would make sense to expect that blaming one's partner for shared difficulties would not comprise successful coping. Attributing responsibility and blame

solely or mostly to one's partner would act to deflect responsibility for the self in both creating, as well as solving marital difficulties, thus making coping as a couple more difficult, and consequently, affecting marital adjustment negatively. Thus, it was predicted that relationship attribution of blame moderates the link between trait embitterment and marital adjustment.

In addition to the research cited above, there is a voluminous literature, which has established the link between depression and marital adjustment that is relevant to the present study (e.g., Merikangas, Prusoff, Kupfer & Frank, 1985; Olin & Fenell, 1989; O'Hara, 1985; Smolen, Spiegel, Khan & Schwartz, 1988; Stravynski, Tremblay & Verreault, 1995; Ulrich-Jakubowski, Russell & O'Hara, 1988). Olin and Fenell (1989), for example, conducted a correlational study examining the relationship between depression and marital adjustment. These authors found a significant positive relationship between depression and marital adjustment, and mothers' scores were more strongly related than fathers' scores. In addition to replicating the established relationship between depression and marital adjustment, this study aimed to demonstrate that the resentful embittered style moderates the link between marital difficulties and depression.

The fourth goal of Study 4 was to evaluate couples prospectively, both during pregnancy (i.e., three months before delivery) and three months after the birth of their child, on the outcome measures of marital adjustment and depression. Although several studies have focused on changes in the quality of the marriage following birth, few studies have examined personality factors that predict change in marital adjustment and depression over time. It was expected that resentful embittered personality at Time 1 (i.e., during pregnancy) is related to a decrease in marital adjustment and an increase in depression at Time 2 (postpartum).

Hypotheses: Study 4

- 1) A significant positive correlation would be found between resentful embittered personality and postnatal depression.
- 2) A significant positive correlation would be obtained between resentful embittered personality and stable/global spousal blame/responsibility attributional style.
- 3) A significant negative correlation would be found between resentful embittered personality and dyadic adjustment.
- 4) Resentful embittered personality would uniquely predict dyadic adjustment and depression when relationship attributions are controlled.
- 5) Resentful embittered personality would interact with relationship attributional style to predict dyadic adjustment and postnatal depression.
- 6) Similarly, resentful embittered style would interact with marital (dyadic) adjustment to predict postnatal depression.
- 7) Resentful embittered personality would predict overall decreases in marital adjustment and increases in depression from Time 1 to Time 2.

Method: Study 4

Participants: Study 4

The couples used in this study were recruited from Mackenzie Health (previously known as York Central Hospital) hospital's pre-natal instructional classes with the approval of the hospital administration. Participation was completely voluntary and couples were paid \$25.00 for completing the set of questionnaires for both the husband and the wife. Questionnaires were collected on two separate occasions, three months before the due date, and again six months later. Mothers and fathers were given the first set of questionnaires at the prenatal classes they attended several months prior to the projected due date (in the last trimester). Couples were

asked to take the questionnaires home and complete them within one week and then return them to the research assistant who would pick them up and financially compensate them during their next prenatal class the following week. The second set of questionnaires was mailed directly to them three months after their due date which they recorded on the first questionnaire. When the second set was completed by both the husband and wife at Time 2, the participants would call to request that the questionnaires be picked up at their home at which time they would be financially compensated with another \$25.00. In all cases, spouses were instructed to complete the questionnaires independently.

The sample comprised 143 married females (mothers) and 143 corresponding married fathers. The mothers' average age was 29.3 years ($SD = 3.50$) while fathers' average age was 31.1 years ($SD = 4.04$). These couples had been married for an average of 6.6 years ($SD = 3.48$). 3.4% of the couples were living common law. Overall, 81.9% and 78.6% of the mothers and fathers respectively had at least a college diploma with the median combined income in the \$60,000 - \$80,000 category. All of the fathers were employed, 97.9% were employed full-time; comparatively, 78.2% of the mothers were employed full-time, 12% were in part-time positions, and 9.9% were unemployed.

A multivariate test was conducted to determine whether there were any sex differences in scale responses for the main scales used in this study, which included the resentful embittered personality measure, all of the facets of the relationship attribution measure (locus, stability, globality, intent, motivation and blame), as well as depression and dyadic adjustment (both pre and post six month measures). The overall MANOVA for sex differences was statistically significant $F(12,169) = 6.58, p < .0001$. Separate univariate tests for sex differences for each scale were computed and depression (pre and post), Dyadic Adjustment – Satisfaction subscale (pre) as well as the Relationship Attribution Measure - blame, and external locus subscales were

all found to have had significant sex effects, as can be seen in Table 9. In light of these differences and the non-independence of the data for men and women, since couples were examined, separate analyses were conducted for men and women for subsequent statistical analyses when necessary.

Materials: Study 4

The questionnaire packages contained questionnaires for both the mother and the father including: the Resentful Embittered Personality Scale (REPS), the Relationship Attribution Questionnaire (RAQ), the Dyadic Adjustment Scale (DAS), and the Edinburgh Postnatal Depression Scale (EPDS). With the exception of the Resentful Embittered Personality Scale which is described in detail in Study 1, a brief description of these scales follows below and the measures themselves are provided in the Appendix D.

Dyadic Adjustment Scale. The DAS (DAS; Spanier, 1976) is a 32-item questionnaire designed to measure the quality of (marital or cohabiting/non-marital) dyadic relationships. It is a frequently used measure of marital adjustment that assesses such aspects of the marriage as satisfaction, communication, affectional expression, similarity of values, and global adjustment. The scale has been shown to be an internally consistent measure (coefficients alpha ranging from .70 to .95) and has fairly good test-retest reliability (.75-.87; Carey, Spector, Lantinga & Krauss, 1993). The Dyadic Adjustment Scale has been shown to be a valid measure, which is able to discriminate happily married from unhappily married and divorced samples (e.g., Jacobson and Margolin, 1979).

Relationship Attribution Measure. The RAM (RAM; Fincham & Bradbury, 1992) consists of four hypothetical negative partner behaviours (e.g., “your spouse criticizes something you say”) which respondents are asked to rate their agreement with on a seven-point scale

ranging from “strongly disagree” to “strongly agree”. It is considered to be a brief, simple measure of different types of attributions for partner behavior. Three statements are used to assess each of three different types of causal attributions (i.e., locus, stability, and globality), and three others assess responsibility (i.e., intent, motivation, and blame).

The validity of the measure has been established by demonstrating associations between RAM responses and attributions for spouse behaviours, marital difficulties, and actual spouse affects observed during marital interaction (Fincham & Bradbury, 1992). The RAM has shown acceptable internal consistency (alpha coefficient ranges from .60 to .83) and high test-retest reliabilities (greater than .60).

Edinburgh Postnatal Depression Scale. The EPDS (EPDS; Cox, Holden & Sagovsky, 1987) is a 10-item self-report scale designed to detect postnatal depression. Each item is scored on a four-point Likert scale, according to increased severity of the symptoms. The participants were asked to indicate the response that best represents how they have been feeling in the past week. It avoids the use of somatic symptoms included in many other scales, as many of these physical symptoms may be confounded by normal physical changes associated with childbirth and rearing. A threshold score of 12-13 has been found to be an indicator of depressive symptomatology, although any scores greater than 9 is considered warranting of further investigation (Cox et al., 1987).

The EPDS has been found to be a valid instrument which has satisfactory specificity (Boyce, Stubbs & Todd, 1993; Reighard & Evans, 1995); it was sensitive enough to detect change over time in postpartum depressive symptomatology (Cox et al., 1987) and was found to perform better than the Beck Depression Inventory in diagnosing post-natal depression (Harris, Huckle, Thomas, Johns & Fung 1989). Split-half reliability of the scale has been reported to be 0.88 and internal consistency (Cronbach’s alpha) has been found to be 0.87 (Cox, et al., 1987).

Results: Study 4

Table 9 shows the overall mean scores and standard deviations for all the variables in the study for the total sample and for each sex, as well as display the univariate F-values for differences between the mean scores for sex. Prior to the birth of their child, mothers were significantly more depressed (EPDS-pre) and less satisfied (DAS satisfied-pre) with their marital relationships than were fathers. Mothers also had a much higher characterological tendency to ascribe personal responsibility for problems by assigning fault and blame to their partners. Fathers on the other hand had a significantly higher tendency to attribute partner's behaviors to stable external factors.

Reliabilities

Cronbach's alpha reliabilities were computed for each of the scales used in the present study and can be examined in more detail in Table 10. Reliabilities ranged from .93 (Resentful Embittered Personality Scale) to a low of .21 (Dyadic Adjustment – Cohesion subscale). As illustrated in Table 10, notwithstanding several DAS subscales with unacceptable internal reliabilities, all other total scale scores were found to have had good to adequate internal reliabilities. Of note, the primary measure of interest, the Resentful Embittered Personality Scale had very good internal reliability at .93. Subsequent analyses using the Dyadic Adjustment Scale only included the more internally consistent total scale scores, and did not use the DAS subscales, due to the unreliability of several of the subscales.

Zero Order Correlation Analyses – Depression and Dyadic Adjustment

REPS and EPDS. Hypothesis 1 reflected the expectation that there would be a significant positive correlation between embittered personality and depression as measured by the EPDS. As is indicated in Table 10, the correlation between the REPS at time 1 and the

EPDS at time 1 and time 2 was found to be strongly positively related at both time intervals for both mothers ($r = .50$; $r = .42$ respectively) and fathers ($r = .45$; $r = .23$ respectively). The REPS accounted for up to 25% of the variance in concurrent depression scores for mothers at time 1, and predicted 18% of the variance in depression 6 months later at time 2. Similar to the mothers, the REPS accounted for a high amount of variance in depression at time 1 for fathers (20%), but this decreased significantly to only 5% of predicted variation in depression scores at time 2 for the fathers. Thus, hypothesis 1 was strongly supported by the results as all correlations between resentful embittered personality and depression were strongly significant; however, the REPS seemed to predict future depression six months later, more strongly for mothers than for fathers.

REPS and dyadic adjustment. Consistent with Hypothesis 3, a significant negative association was found between resentful embittered personality and dyadic adjustment total scale scores for both mothers and fathers in this sample. This set of correlations was slightly higher for mothers ($r = -.24$) than for fathers ($r = -.18$). In addition, REPS at time 1 was negatively correlated with dyadic adjustment at time 2 for mothers ($r = -.33$), but just failed to reach significance as a predictor for fathers, even though the correlation remained unchanged from time 1 to time 2 ($r = -.18$, NS). Some of the subscales had unacceptably low reliability, therefore, should be considered invalid. An examination of the specific intercorrelations between the REPS and the DAQ subscales, showed that the strongest relationships were with the DAQ – Consensus subscales at time 1 for both mothers and fathers ($r = -.25$; $r = -.26$ respectively), and at time 2 only for mothers ($r = -.37$). In addition, the REPS was also associated with decreased marital satisfaction at time 1 for mothers ($r = -.23$), but not for fathers. The finding that resentful embittered personality styles at time 1 was predictive of dyadic adjustment problems at time 2 speaks directly to the predictive validity of this instrument, especially for mothers.

REPS and relationship attribution. Hypothesis 2 predicted that resentful embittered personality would be positively related to relationship attributions of stable and global partner attributions of blame and responsibility. In reviewing the correlations between the REPS and the four facets of the Relationship Attribution Measure (stability, globality, responsibility, and blame), all correlations between the REPS and these facets were significant and positive for both the mother and father samples as predicted (see Table 10).

Multiple Regression Analyses – Dyadic Adjustment

Using regression techniques, a number of predictions were examined beginning with Hypothesis 4 which tested whether there were unique contributions in predicting dyadic adjustment after controlling for the variance accounted for by relationship blame attribution styles. In addition, possible two-way interactions were examined to determine whether there might be some joint contribution to reported dyadic adjustment, using Cohen's (1968) hierarchical regression method and interaction terms. The distribution of dyadic adjustment scores was reviewed and was determined to be fairly normally distributed.

The first regression equation included the following variables entered in the order presented below. The first block consisted of Relationship Attribution measure which was a composite of the six facets of that measure including internal locus, globality, stability, as well as responsibility – intent, motivation, and blame. This was followed by a second block containing the resentful embittered personality measure. The regression analysis was examined for collinearity and influential outliers. To examine these outliers, Cook's distance scores were calculated to identify unusual and influential outliers utilizing the following formula: $D > 4/n - k - 1$ (Fox, 1991). The cut-off score that was used to identify such outliers accordingly was $D > 0.03$ for the mother and father samples separately. The regression analysis then was conducted again without the influence of significant outliers for each sex.

As can be seen from Table 11, Hypothesis 4 was supported in that the predictor variables in the first block (i.e., Relationship Attribution Measure) significantly predicted self-reported dyadic adjustment for both mothers and fathers. However, resentful embittered personality did not significantly predict dyadic adjustment over and above that of the contribution by the relationship attribution measure, although for mothers only, a non-significant trend was evident ($F\text{-change}(1, 137) = 3.573, p = .061$). Thus hypothesis 4 was not supported in that resentful embittered personality was not a significant predictor of dyadic adjustment for both mothers and fathers after controlling for relationship attribution.

A further regression analysis examined the cross-product interaction effects, as described by Cohen (1968), in predicting dyadic adjustment. As with the previous study, following procedures described by Aiken and West (1991), all interaction term predictors were centered for use in the regression analyses. The interactions of the computed centered embittered personality X relationship attribution were entered into the regression equation for each sex. Contrary to what was predicted in Hypothesis 6, no significant interactions were found for either sex in predicting dyadic adjustment for either mothers or fathers in this sample.

Multiple Regression Analyses – Depression

As with the previous multiple regression predicting dyadic adjustment, the same set of predictors was used in two blocks to predict depressive symptomatology as measured by the EPDS. A review of the distribution of the depression scores showed that the data were normally distributed, thus transformations were not necessary. The data were also examined and determined to be adequate with respect to collinearity. As with the previous regression analyses predicting dyadic adjustment, all multiple regression analyses were conducted separately by sex in predicting depression due to the non-independence of the sample (i.e., married couples). Moreover, this study utilized the same cut-off scores to identify influential multivariate outliers

as was used in the previous analysis for this set of analyses. The regression equation predicting depression contained the same relationship attribution measure while the second block consisted of the resentful embittered personality measure.

To review the results of the multiple regression analysis predicting depression at Time 1 for the mothers and fathers, see Table 12. Hypothesis 4 was partially supported in that the predictor variables in the first block (i.e., Relationship Attribution Measure) significantly predicted self-reported depression. For mothers, relationship attribution (i.e., internal locus, stability, globality, intent, motivation and blame), acting together in the first block, explained 5.6% of variation in Time 1 depression scores, F-change (1,136)=8.02, $p=.003$. For fathers relationship attribution explained 6.5% of variation in depression scores at Time 1, F-change (1,134)=1.26, $p=.003$. After resentful embittered personality was entered in the second block, an additional 19.6% of variation in depression scores was accounted for among mothers, F-change (1,135) = 35.32, $p<.001$. Similarly 20.5% of variation in Time 1 depression scores was accounted for by resentful embittered personality among the fathers, F-change (1,133) = 9.14, $p<.001$. Therefore, the REPS was the strongest predictor of depression for both fathers and mothers in this analysis. In short, Hypothesis 4 was fully supported.

A similar regression analysis was performed (Table 13) with the Relationship Attribution Measure in the first block followed by resentful embittered personality in the second block predicting depression at Time 2 (i.e., 3 months post-partum) as a test of the predictive validity of the REPS for future depression. For mothers, relationship attribution accounted for 5.8% of the variation in Time 2 depression scores F-change (1, 92) = 5.64, $p=.02$. When the REPS was added to the regression in the second block, it explained a further 16.2% of depression at Time 2 among mothers F-change (1, 91) = 18.93, $p <.001$. For fathers on the other hand, relationship attribution failed to predict depression at Time 2; however, resentful embittered personality in

the second block did significantly predict depression six months later $F\text{-change}(1, 86) = 9.14, p=.003$). The latter finding further underscores the predictive value of the resentful embittered personality measure in predicting depression six months later, even when other personality measures cannot.

In summary, the REPS was by far the strongest predictor of depression six months later for both mothers and fathers in this analysis, providing strong support for hypothesis 4 and the predictive validity of the REPS in general.

In evaluating hypothesis 5 and 6 with respect to depression, two-way interactions were examined to determine whether there were joint contributions between resentful embittered personality and relationship attributions, as well as the whether the interactions between resentful embittered personality and dyadic adjustment predicted depression. These interaction terms between the (centred) resentful embittered personality X relationship attribution and dyadic adjustment variables were entered into the regression equations predicting depression for both mothers and fathers separately, utilizing a backwards deletion method to determine which interactions were significant. For both mothers and fathers, no significant interactions predicting depression were found, failing to support the hypotheses related to the moderating effects of the REPS.

Repeated Measures Analysis – Depression

The final analyses conducted for this study pertained to the evaluation of whether resentful embittered personality predicted worsening depression scores as well as marital adjustment among the marital couples in this sample. As such, a set of repeated measures analyses were conducted predicting both depression at time 1 and six months later. The resentful embittered personality scores were transformed into standardized z scores and the sample was divided into three relatively equal groups (low, medium and high REPS scores) according to the

following practically determined guidelines. REPS – low was defined by z-scores that were between -3 and -0.5 SD, REPS – medium was defined by z-scores between -0.5 and +0.5, and finally, REPS – high was defined by z-scores above +0.5. REPS categories as well as sex were then entered as between subject variables in predicting changes in depression over time (i.e., dependent variable). The repeated measures analysis is presented in Table 14. From the analysis shown, it can be seen that there was a general time effect for depression with higher depression scores occurring six months after the initial assessment of depression across both sexes. Note that between participants sex effects were significant in this analysis, indicating that overall, mothers' depression scores were generally higher than fathers' depression scores at both time intervals. Finally, resentful embittered personality was a significant predictor of these increases in depression [$F(2, 186) = 14.48, p < .001$]. Table 15 presents mean scores for both mothers and fathers by REPS category (low, medium, and high groups), which illustrates these increases in depression scores over time (i.e., noting general increases in the depression scores from time 1 to time 2 with the highest scores represent those who score most highly on the REPS). Despite these apparent trends suggestive of interaction effects, no two- or three-way interactions were significant in this analysis.

As with the REPS predicting increased depression over time, another repeated measures analysis was conducted predicting worsening marital adjustment using the same between participants factors of sex and REPS categories. As is illustrated in Table 16, no significant sex effects were found in this repeated measures analysis predicting marital adjustment. Similarly, a significant time effect for marital adjustment showed generally poorer adjustment over time [$F(1, 185) = 34.98, p < .001$] as well as a main effect for the REPS [$F(2, 185) = 5.76, p = .004$]. No significant two-way or three-way interactions were found in this set of repeated measures analysis. Thus, hypothesis 7 was only partially supported by the data in that no significant REPS

x Time interactions were found despite observed mean trends in the data depicting higher mean depression and marital adjustment scores for those who were in the high REPS categories.

Means and standard deviations showing increases in dyadic adjustment difficulties over time and by REPS severity can be seen below in Table 17.

Discussion: Study 4

The focus of present study was to assess the role of resentful embittered personality, relationship-specific attributional styles in marital adjustment and depression among couples before and after the birth of their child. Correlational findings involving the REPS revealed that it was strongly positively related to depression for both mothers as well as fathers. Moreover, marital adjustment was also negatively related to resentful embittered personality among both mothers and fathers. In summary, this study highlights the potential clinical utility of the resentful embittered personality construct in predicting both depression as well as relationship difficulties.

Not only does resentful embittered personality seem to be a strong predictor of personal and marital adjustment, but it also seems to be a good predictor of these outcomes over time as assessed by correlational analyses and repeated measures analyses that confirmed that resentful embittered personality strongly predicted marital and personal adjustment (i.e., depression) difficulties six months later. Correlations with the REPS for mothers specifically were strongly predictive of both future marital problems and depressive symptoms. The correlations for the father sample yielded significant predictions for depression, but not marital adjustment six months after. These results lend some support for the predictive validity of the REPS and they suggest possible enduring negative implications of this personality trait. This resentful embittered personality style may indicate a self-defeating coping strategy that may undermine

attempts at coping with stress, or even exacerbate its effects as can be seen by its positive relationship to depression and marital distress both concurrently and in the future. In summary, the resentful embittered personality measure was repeatedly found to be a strong correlational predictor of both personal and interpersonal distress including three months after the onset of a significant life stressor.

These findings make significant contribution to the existing, albeit, limited literature with respect to identifying significant personality factors that predict worsening personal and interpersonal adjustment among marital couples over time. These findings are quite consistent with Hafner and Spence's (1988) study in which they investigated a similar number of couples on measures of personality, psychological symptoms and marital adjustment. They found that among the couples that had been married between 7 – 16 years, hostility was the most significant predictor of poor marital adjustment and that the resolution of this hostility was an important factor in maintaining the relationship over time. The present study also indicated that a resentful embittered personality style, as measured by the REPS, significantly predicted increases in personal depressive symptoms as well as marital adjustment for both mothers and fathers. Although this study traced these changes in a relatively short period of time, only six months, as compared to longitudinal analyses over several years or longer, it was quite clear that this personality style added significantly to the personal and marital stress related to the impending birth of their first child. One can expect that if the resentful embittered personality style was not handled effectively within the relationship over time, that this personality style would undermine effective coping with stress and would contribute significantly to the poorer functioning of the individual with embittered personality, as well as the familial and other interpersonal relationships that they may be involved in.

The relationship between the REPS and blame-oriented attributional styles of fathers and mothers also was investigated. Blame attributions have been noted to be highly related to marital dissatisfaction in the literature (Fincham & Bradbury, 1992; Lussier, Sabourin & Wright, 1993; Sabourin, Lussier, & Wright, 1991) and the REPS was indeed found to be highly positively correlated with blame-oriented attributional styles. The presence of a strong positive correlation between resentful embittered personality and marital blame attributions begs the question as to whether the resentful embittered personality construct might be conflated with an attributional blaming style itself, which may explain why it is also such a good predictor of marital dissatisfaction and depression in the present study. To address this issue, hypothesis 4 addressed whether resentful embittered personality could predict both marital adjustment and depression over and above that accounted for by marital blame attributional style. Multiple regression results showed support that the resentful embittered personality measure was a stronger predictor of depression than was the relationship blame attributional style measure, even after marital attributional style was controlled, both for mothers and fathers. Moreover, the robustness of resentful embittered personality in predicting depression also was evident in predicting depressive symptoms six months later after controlling for relationship attributional style, lending further support to the predictive value of the REPS. Unexpectedly, the unique contribution of resentful embittered personality in predicting marital adjustment was not replicated for fathers or mothers separately, after controlling for relationship attributional style.

Another important aim of this study was to test hypotheses related to the moderating attributes of the resentful embittered personality measure with other personality and stress variables in predicting depression and marital adjustment for both mothers and fathers. As such, resentful embittered personality was predicted to moderate the relationship between marital blame attributions and depression among mothers and fathers. There were no significant

interaction effects involving resentful embittered personality and relationship attributions in predicting depression for mothers or fathers. The REPS was also investigated as a moderating influence for blaming relationship attributions in predicting marital adjustment for both mothers and fathers separately as well. As with the previous exploratory regression investigating interactions predicting depression, there were no significant interaction effects in predicting marital adjustment either. Despite the fact that the regression analyses failed to find significant interaction predictors of either depression or dyadic adjustment, the repeated measures analysis seemed to indicate that higher scores on the REPS seem to predict higher scores of depression and dyadic adjustment at both Time 1 and Time 2. Despite the fact that there was an effect of time in the repeated measures analysis as well as an effect of REPS, the analysis failed to find significant Time x REPS interaction effects. This difficulty in finding significant moderating or interaction effects with the REPS seems somewhat surprising especially since the data appear to be trending in that direction by observing the mean scores of depression and dyadic adjustment.

Finally, effects of sex were found in a number of analyses in this study indicating that mothers overall, seemed to be experiencing higher levels of personal and interpersonal distress, in keeping with results from other studies (e.g., Belsky et. al., 1983; Wallace & Gotlib, 1990). Similar to the findings of Olin and Fenell (1989), mean scores on the depression and dyadic adjustment scales show that mothers generally have higher rates of depression and marital difficulties, which seem to get worse over time. This study was not designed to assess the validity of the interpersonal theories of depression (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971), though it is quite tempting to speculate about the cumulative and reciprocal effects, both personally and interpersonally within the marriage, of being constantly exposed to a person who consistently presents himself or herself as depressed and hostile, which could in turn bring out depression and hostility in the other spouse in an ever increasing cycle. The negative

iterative process leading to negative marital consequences has also been highlighted in Miller et al.'s (1995) longitudinal study. They showed that after 11 years of follow up in the US and Mexico, expressed hostility predicted marital separation and divorce and future interpersonal conflict and distress. It is not possible from this study to determine the extent to which a spouse's own depression or hostile traits actually caused hostility and depression in the other spouse over time; however, this is something that should be further investigated in future studies along with strategies that might mitigate this downward spiral. Furthermore, a more fulsome investigation of sex differences in resentful embittered personality, depression, and adjustment will be discussed below.

This study had a number of limitations that prevent conclusive interpretations. First, issues regarding causality and course of depression and marital adjustment as a function of resentful embittered personality traits cannot be parsed out without better longitudinal or developmental designs. While this study was prospective, it was over a very short duration, being only six months. It is not possible to know what the longer-term implications of resentful embittered personality are over a longer time course. Self-report data may not be the most accurate or reliable assessment strategy to measure marital difficulties, which typically are not disclosed publically, particularly among relatively new couples who are having their first baby. One might even argue that there may be a strong pull to downplay problems or to "impression-manage" disclosure of any personal and interpersonal problems or dissatisfaction during this stressful time. This may be one explanation for why more robust moderating effects of the REPS were not found in this study.

Longitudinal studies of the effects of the resentful embittered personality on personal, marital and familial relationships over a longer course of time will help to elucidate the processes involved. In particular, the etiological development of this personality style as being a learned

set of beliefs and coping styles that make up the resentful embittered personality might be investigated in the newly formed family and then tracked prospectively as the family develops along with complementary measures of psychological distress, wellness, and interpersonal functioning. Moreover, for those individuals who may have started off with high levels of resentful embittered personality styles, investigation into how this personality style can be mitigated either personally or within the family, may also be an area for inquiry.

General Discussion

The general purposes of this set of studies were to explore, describe and validate a new personality construct coined the “Resentful Embittered Personality”, as well as to evaluate a personality tool specifically designed to measure this construct, namely the Resentful Embittered Personality Scale (REPS). The resentful embittered personality was further postulated to help explain the theoretical and anecdotal link between hostility and depression that had been noted in the literature (e.g., Akiskal, et al., 1978; Brown & Zeichner, 1989; Coyne, 1985; Finman & Berkowitz, 1989; Goldman & Haaga, 1995; Kahn, Coyne, & Margolin, 1986; Morino, Fuhrman & Selby, 1993; Scheier & Bridges, 1995; Weissman, Klerman & Paykel, 1971). Based on the anecdotal and empirical literature, the consensus was that, among some individuals, there was likely a resentful embittered dispositional style that conferred significant risk to experience psychological distress including depression, as well as create interpersonal difficulties in about ¼ of the depressed population (Akiskal et al., 1978). Atlas and colleagues (1994) also found that the best predictors of depressive symptoms were the sustained experience of anger along with unassertive or passive communication styles, which, in turn makes perceived criticism a sensitive trigger for these individuals to experience ongoing distress and depression. Finally, interpersonal theorists have argued that resentful embittered personality styles may legitimately be eliciting hostile reactions from others, and actually may in turn seem to validate and perpetuate hostile perceptions, ongoing interpersonal sensitivity and defensiveness as well as depression among those with such a resentful embittered interpersonal style (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971).

While previous literature had repeatedly pointed to the possibility of this resentful embittered style as being a significant though poorly understood contributor to depressive and interpersonal problems, there were no studies with a focus on assessing this personality style to

support and measure its effects. Thus, this was the first set of studies that evaluated a newly created measure of this resentful embittered personality style, to assess its construct validity and reliability. Furthermore, this set of studies attempted to verify the interpersonal and clinical costs of this personality style, by exploring the relationships to other negative personality, clinical and interpersonal measures, which in turn helped to uncover its interdependencies. In general, there has been very little effort made to attempt to understand the theoretical or scientific relationship between hostility and depression. The two most prominent theories are the negative affectivity theory (Clark & Watson, 1991) and the interpersonal theory of depression (Coyne, 1976; Gurtman, 1986; Jacobson, 1971). By way of review, the negative affectivity theory posited that anxiety and frustration tends to co-occur with depression, and may, at times, lead to the expression of frustration in hostile ways. Individuals with high negative affectivity are described as more likely to experience distress and negative emotional states (Watson, Clark & Tellegen, 1988), as well as position themselves to be more likely to experience greater life stress (Bolger & Zuckerman, 1995). Both Studies 1 and 2 demonstrated consistent evidence that resentful embittered personality as measured by the REPS was highly significantly related to negative affectivity (Neuroticism), lending support to the negative affectivity theory of depression. Indeed, high correlations were found on all facets of the Neuroticism factor including hostile, sensitive and depressive traits. Given that the correlations with Neuroticism were so robust, the question can be raised about whether the REPS is simply another measure of neuroticism/negative affectivity or whether it has independent contributions above and beyond that of neuroticism alone. This question can be addressed in future research by including negative affectivity as a covariate in predicting measures of distress or clinical psychopathology. This question goes beyond the scope of the current study, but can be addressed in future research.

A further theoretical line of interpretation regarding the link between resentful embittered personality and depression can be accounted for within the interpersonal theories of depression (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971) which suggests that the depressed persons' perpetual ego-supporting reassurance seeking behavior, inevitably elicits rejection and hostility from the very people they are seeking support from (Hokanson & Butler, 1992). High correlations between Resentful Embittered Personality and the Inventory of Negative Social Interactions in Study 3 indeed shows that those who are high in trait embitterment do experience more self-reported negative social interactions than those who have low trait resentful embittered personality. Study 4 reported evidence of the direct effects of resentful embittered personality on interpersonal (dyadic) adjustment between mothers and fathers before and after the birth of their first child, showing that high resentful embittered personality prior to delivery of their first child predicted significant increases in marital adjustment difficulties three months following the birth of their baby. Consistent with interpersonal depression theory, those who experience continued interpersonal conflict and rejection, may, in turn, seem to confirm negative beliefs about their depressive self-concepts. The interpersonal theories of depression are more silent about what effects continued rejection has on the development of negative (hostile) beliefs about the world or others, which may maintain a hostile orientation or expectation from and towards others, in defense of the self. Nevertheless, the REPSs high correlation with trait cynicism suggests that individuals high in trait oppositionality are likely to have chronic mistrust of others and greater propensity for having revengeful and derogatory hostile automatic thoughts that may serve to further reinforce and maintain more stable dispositional hostile attitudes towards others. In other words, a perceived history of being singled out for mistreatment becomes reflected in generalized negative views that others cannot be trusted and a propensity for dysphoric reactions to be accompanied by hostile thoughts.

Several authors have noted that in addition to eliciting hostile reactions in others, and perpetuating suspicious beliefs about others' motives, a hostile disposition may in fact serve additional ego protective functions when one's social or self-identity is threatened as well as to warn others about their personal expectations of acceptance or approval, even though social compliance with these expectations may be otherwise disingenuous (Ohbuchi, 1987; Romero, Downey, Berenson, Ayduk & Kang, 2010). There recently has been some evidence by Kesting, Bredenpohl, Klenke, Westermann, & Lincoln (2013) to indicate that threats to self-esteem brought on by social stress tends to increase paranoia in the normal population. Mistrust of others, and paranoia has already been shown in previous studies to be correlated and conceptually related with resentful embittered personality, thus there is some degree of precedent for these mechanisms.

Interpersonal conflict in this resentful embittered personality orientation may be maintained through several proposed theoretical paths: (a) through excessive reassurance seeking which causes others to reject or avoid them, (b) through being sensitive to rejection by others which may in turn elicit increased reassurance seeking and further rejection, (c) through a learned or dispositional expectation that people will reject them, thus evoking hostility either immediately following perceived slights or rejections, or even through pre-emptive hostile communication (e.g., sarcasm), (d) through expressing hostility as a punitive socially corrective action (either before or after experiencing rejection) to dissuade others from being rejecting or hostile towards them. All of these possible paths are self-limiting and self-defeating in the long run, but may otherwise explain the development and maintenance of this personality style initially perhaps as ego and/or socially protective compensatory functions.

All of these taken together may suggest that the resentful embittered dispositional style as measured by the REPS is likely both an ego-defensive and a socially defensive style that protects

a very vulnerable and insecure self. Study 2 which examined specific facets of the NEO-PI R in relation to the REPS, nicely showed the interconnectedness between various aspects of self-consciousness, social sensitivity, self-protectiveness from expected social slights, as well as protecting the self-concept from the possible validity that they are not liked by others due to real characterological deficiencies by identifying others as malicious. High correlations were found between REPS and Neurotic facets of worry, hopelessness, shame, depressive affect, bitterness and loneliness. Correlations with the facets of the Agreeableness factor in Study 2 also underscored that those with high trait hostility may be very self-serving, manipulative, and vindictive when faced with interpersonal stress, suggesting that they may be holding and acting preemptively and reactively on a belief that it is a “dog-eat-dog world”, using perceived slights towards them as confirmation. This suggests that depressive experiences may be reinforced not only as a result of social rejection from excessive reassurance seeking, but ironically, because of the malicious mean-spirited motives of these individuals, which are correctly perceived by others. Study 3 further reinforced these interconnected theoretical complexes as evidenced by the strong relationship between the REPS and the Interpersonal Sensitivity Measure that taps a number of these inter-related variables including sensitivity to the perceived impact that others may have on the self, a need for approval from others, fear of losing their current relationships, difficulties being assertive about their emotional and interpersonal needs and an unyielding belief that there is something inherently unlovable about them that should be hidden in interpersonal relationships. Study 3 showed that although interpersonal sensitivity was an important component in predicting depression (accounting for 18.3% and 33.3% of variance in self-reported depression scores for males and females respectively), resentful embittered personality added an additional 13-15% of accounted variance in depression scores. Similarly, the REPS accounted for an additional 5-10% of additional variance over and above interpersonal sensitivity

in predicting well-being. Study 1 correlations between the REPS and the Complex Attribution of Blame Scale show signs that individuals with high levels of resentful embittered dispositions in fact have greater tendencies to have both other and self characterological blame tendencies.

Taken together with interpersonal theory of depression, it is possible that these individuals have more rigid and enduring expectations that others may be chronically at fault for rejecting them, but also, that there is something inherent in their character that is not acceptable and therefore they may also be equally to blame. What may be more important to them, however, is managing these daily expectations that many of their social interactions will reflect this chronic pattern.

Furthermore, one might also suspect that a resentful embittered person who is very actively engaged or consumed with identifying and protecting against interpersonal threats, may in essence create a preoccupation which distracts their attention from more threatening deeply held insecure self-beliefs and therefore temporarily protects them from experiencing deeper levels of despair and depression. A number of correlations in Study 1 showed evidence of an underlying deeply insecure, fearful and otherwise submissive person including significant correlations with overly nurturant, unassertive and exploitable interpersonal styles identified in the Inventory of Interpersonal Problem, as well as anxious and preoccupied attachment styles that support this interpretation.

The negative psychological and emotional impact of this resentful embittered personality style was assessed specifically in Study 3 using self-report indices of depression (CES-D) and well-being (RMAS). The high positive correlation between resentful embittered personality and depression points to the fact that this personality style is associated with serious deleterious effects with respect to their psychological functioning and emotional stability. Indeed, resentful embittered personality as operationally defined and measured by the REPS seems to be a robust predictor of depression and wellbeing over and above other personality variables such as trait

interpersonal sensitivity, and other stress variables such as negative life event stress and negative interpersonal stress. An important outcome of Study 3 was to show that resentful embittered personality interacts with negative life event stress to predict depression by significantly exacerbating the effects of stress on depression for those with high versus low resentful embittered personality. Similarly, resentful embittered personality was found to interact with negative social interactions by significantly reducing wellbeing in those with high trait embitterment compared to those with lower resentful embittered personality traits. To this author's knowledge this is the first study to show that concepts similar to trait hostility can interact with stress to increase depression and lower wellbeing, thus lending support to the diathesis-stress models, which purport that certain individuals may be more vulnerable to the effects of stress including social stress to experience higher degrees of negative symptoms. Indeed, the interaction effects found particularly in Study 3 seem to point to trait resentful embittered personality as a key vulnerability factor that interacts with social stress and life event stress to increase negative symptoms and decrease wellbeing.

The significant and robust relationship between resentful embittered personality and depression was replicated in Study 4 as well in examining both mothers' and fathers' depression 3 months before and 3 months after the birth of their first child. Not only did resentful embittered personality predict depression concurrently, but it also predicted increases in depression following the onset of a significant life stressor, the birth of their first child. Moreover, resentful embittered personality at Time 1 remained a significant predictor of depression at Time 2 even after attributional blame styles were controlled, emphasizing the inherent predictive validity of resentful embittered personality construct. That the relationship between resentful embittered personality and depression was replicated in several studies provides further support to the established literature, which shows that trait hostility is a very

important predictor of depression (e.g., Akiskal, et al., 1978; Atlas et al., 1994; Brown & Zeichner, 1989; Coyne, 1985; Finman & Berkowitz, 1989; Goldman & Haaga, 1995; Kahn, Coyne, & Margolin, 1986; Morino, Fuhrman & Selby, 1993; Scheier & Bridges, 1995; Weissman, Klerman & Paykel, 1971). One of the clinical implications of this finding is that the assessment of trait hostility, sensitivity to mistreatment, and tendencies to experience resentment may be considered important negative prognostic indicators in the predicted course of depressive episodes. Moreover, the presence of trait hostility as part of depressive syndromes suggests a much more complex and perhaps intractable set of circumstances, as not only does the depressed individual have to overcome deep-seated negative beliefs about the self, but also needs to address negative predictive beliefs about others as being malicious and rejecting. This shift in perspective would require a considerable amount of risk taking as part of the clinical intervention as the self-protective interpersonal and ego-defensive stance would need to be abandoned before improvement could be achieved. There seems to be not only self-generated stress, but a self-perpetuating and self-fulfilling quality to this resentful embittered personality style which may lead their depressions to be more intractable and they may be more likely to experience long periods of interpersonal and emotional suffering. Future research will need to provide better empirical evidence of this prediction.

Resentful embittered personality styles seem to have even stronger effects on depression among women, accounting for up to 45% of variance in depression scores as compared to 34% for men. This sex effect may be partially explained by the fact that the social domain is much more salient for women as opposed to men, and consequently, interpersonal problems would present a more significant stressor, which may get wrapped up in depressive and distressing experiences. This interpretation is in line with some literature regarding depressed women as being much more likely to have increased interpersonal event stress and stress in general which

is theorized to be self-generated, and therefore perpetuates their distress even further (Hammen, 1991).

A very important contribution of this study was the deliberate aim to examine resentful embittered personality on the experience of well-being and happiness. The importance of including well-being in psychosocial studies comes from the recent recognition that well-being is an important yet underemphasized component of clinical recovery from depression (Fava, Tomba & Grandi, 2007) and is also somewhat independent of depression (Bradburn, 1969; Lowenthal, Thurner and Chiriboga, 1975; Costa & McCrae, 1980, Seligman, 2012). As Martin Seligman (2012) aptly put it, “mental health is not just the absence of mental illness... rather it is the presence of flourishing” (p. 183). It involves the presence of positive emotion, engagement, personal meaning, quality social relationships, and accomplishments. Given the importance of well-being in experiencing maximal adjustment (flourishing) and its relative independence from depression itself, the question of whether resentful embittered personality may be negatively related to well-being was an important contribution to make. Consistent with previously published literature, emotionality, anger and poor impulse control have all been highly related with both neuroticism and well-being (Costa & McCrae, 1980; Maan Diong, 2005). A major finding in Study 3 was that resentful embittered personality negatively correlated with all facets of the Ryff (1989) Multidimensional Adjustment scale which taps six elements of wellbeing including self-acceptance, positive relations, environmental mastery, autonomy, personal growth and purpose in life. What is very clear from this set of correlations is that those with resentful embittered personality styles are themselves not just depressed but quite unhappy compared with those who are low on this trait. Although the exploratory moderating effects of the resentful embittered personality construct was not found to be a significant predictor of well-being, it was a significant main effect predictor of well-being (accounting for 29.6% of variance in total well-

being scores for the full sample; 40% for females only), even after the personality variable of interpersonal sensitivity measure was included in the first block of the regression model, accounting for an additional 10% of variance in predicting well-being. These results show strong evidence of the importance and robustness of this construct in understanding the concept of well-being.

The negative implications of resentful embittered personality for marital adjustment was tested specifically in Study 4 along with an assessment of its predictive validity in predicting adjustment difficulties over time. Study 4 indicated that resentful embittered personality styles not only predicted increases in personal depressive symptoms 6 months later after experiencing a major life event (birth of their first child) but also was found to predict poor marital adjustment, both for mothers and fathers as compared with those who scored lower on trait hostility. It is clear that resentful embittered personality clearly undermines effective coping in the face of a major life stressor not only for the individual with this personality style, but also for the other dyadic member as well. Extrapolating from this somewhat short time interval, one can assume that if every life event in a couple's life is managed with resentful embittered personality and related coping styles, then the security and stability of that relationship would likely be in serious jeopardy. Indeed, Hafner and Spence (1988) found hostility was, in fact, the most significant predictor of marital adjustment in long term relationships (between 7-16 years) and that it was very important to resolve this resentful embittered style in order to promote the maintenance of and health of that important life bond over time.

Related to this resentful embittered personality style and perhaps underlying its structure, is the significant impact of blame-oriented attributional styles which have previously been noted to have serious negative effects on marital adjustment and satisfaction in previous literature (Fincham & Bradbury, 1992; Lussier, Sabourin & Wright, 1993; Sabourin, Lussier and Wright,

1991). Study 4 also found that resentful embittered personality was not only related to global and stable blame-oriented attributional styles, but also predicted negative dyadic adjustment over and above that accounted for by blame oriented attributional styles alone, both at Time 1 as well as 6 months later.

Another aim of this study was to further test specific hypotheses related to the predicted moderating attributes of the resentful embittered personality measure with other personality and stress variables in predicting depression and marital adjustment for both mothers and fathers. As such, resentful embittered personality was predicted to moderate the relationship between marital blame attributions and depression among mothers and fathers. This study failed to find significant interaction effects involving resentful embittered personality and relationship attributions in predicting depression for mothers or fathers. Likewise, the REPS was also investigated as a moderating influence for blaming relationship attributions in predicting marital adjustment for both mothers and fathers separately as well. As with the previous exploratory regression investigating interactions predicting depression, this study also did not find any significant interaction effects in predicting marital adjustment either. Despite the fact that the regression analysis failed to find significant interaction predictors of either depression or dyadic adjustment, the repeated measures analysis seemed to indicate that higher scores on the REPS are related to higher scores of depression and dyadic adjustment at both Time 1 and Time 2; despite the fact that there was an effect of time in the repeated measures analysis as well as an effect of REPS, the analysis failed to find significant Time x REPS interaction effects. This difficulty in finding significant moderating or interaction effects with the REPS was unexpected, especially since the data appear to be trending in that direction by observing the mean scores of depression and dyadic adjustment.

Finally, effects of sex were found in a number of analyses in this study indicating that mothers overall, seemed to be experiencing higher levels of personal and interpersonal distress as compared to fathers, in keeping with results from other studies (e.g., Belsky et. al., 1983; Wallace and Gotlib, 1990). Indeed, similar to the findings of Olin and Fenell (1989), mean scores on the depression and dyadic adjustment scales clearly show that mothers generally have higher rates of depression and marital difficulties which only seem to get worse over time. This study was not designed to assess the validity of the interpersonal theories of depression (e.g., Coyne, 1976; Gurtman, 1986; Jacobson, 1971), though it is quite tempting to speculate about the cumulative and reciprocal effects, both personally and interpersonally within a marriage, of being constantly exposed to at least one person who presents him/herself as perpetually depressed and hostile, which could in turn bring out depression and hostility in the other spouse in an ever increasing cycle. That this negative iterative process can lead to negative marital consequences has been highlighted in Miller et al.'s (1995) longitudinal study showing that after 11 years of follow up in the US and Mexico, expressed hostility predicted marital separation and divorce and future interpersonal conflict and distress. It is not possible from this study to determine the extent to which a spouse's own depression or resentful embittered traits actually caused hostility and depression in the other spouse over time; however, this is something that should be investigated in future studies, along with strategies that might mitigate this downward spiral. Furthermore, a more fulsome investigation of sex differences in resentful embittered personality, depression, and adjustment will be discussed below. This study has a number of limitations that prevent conclusive interpretations.

In summary, this set of studies established the reliability and validity of the resentful embittered personality construct, by showing it had excellent internal reliability and considerable evidence of convergent and divergent validity, construct validity, and predictive validity. These

studies helped to tell a psychological story about the difficulties that individuals with resentful embittered personality have, which include the increased propensity to feel depression, negative affectivity, and negative social interactions compared to others who do not score highly on this trait. What was also very interesting was the pattern of correlations and effects across all of the studies that allowed one to weave together a plausible cohesive theory regarding the etiological and developmental circumstances that may underlie this self-defeating characterological tendency. What can be gleaned from this set of studies is that underneath the apparently crusty resentful embittered exterior lies a deeply sensitive and easily wounded individual, who tends to overestimate and overgeneralize the likelihood that others are critical and rejecting of him/her. While this may seem to be very much like typical beliefs related to depressive individuals, unlike most depressive reactions, embitterment-oriented individuals would rather deflect blame or share blame with others for negative interpersonal experiences. Moreover, the person with resentful embittered personality may prefer to assume negative attributes of others as a means of both protecting the self and minimizing the impact of the experienced criticism. It is also plausible that resentful embittered individuals actually set up negative interpersonal situations that confirm these negative beliefs about others, by accusing others in advance, and punishing or rejecting them. The preemptive rejection of others before they themselves become the victim of rejection, would in effect cause others to reject them, but that may also be more preferable than being rejected for other character traits that are more deeply valued. In essence, those with resentful embittered personality may be masters at creating interpersonal issues as a smoke screen to prevent others from identifying a deeper personal flaw. Because this stress is socially generated and contrived, it nevertheless tends to legitimately engender rejection, avoidance from others and thus may confirm their constructed beliefs about others as being malevolent, deceptive, and

critical; ironically, the same traits that they themselves seem to display in defense of a much more vulnerable and insecure self-concept.

Directions for Future Research and Limitations

The current set of four studies made significant contributions in establishing the validity and reliability of the scale as well as testing its clinical utility and predictive validity for depressive and adjustment difficulties among new couples experiencing their first child. A number of questions remain for future research to address. While there is some literature noting the importance of marital satisfaction, communication patterns, and relationship quality as significant predictors of marital adjustment and depression, future research could focus on identifying specific marital communication styles, family behaviour patterns and cultural differences in marital expectations associated with the resentful embitterment personality. It would be useful for future research to examine the developmental course and longitudinal outcomes of resentful embittered personality styles. Though it may be speculative, very often character traits are learned in childhood from observational learning or from strategies that may be reinforced through early short-term “successes” that then become more entrenched with every opportunity. It is also possible that there may be other motivational and etiological explanations for this character trait that has yet to be elucidated, or there may be several simultaneous explanations or motives behind similar behavior patterns related this character trait that future studies could help to explore and establish. Study three noted that the negative effects of the resentful embittered personality may be more susceptible in situations that reflect interpersonal stressors over general life stressors. Future research into this construct would benefit from expanding on the comparative associations with specific forms of stress and interpersonal stress in particular. In addition, future research may be able to demarcate whether there are subtypes or interactions with other personality measures or coping strategies that have differential effects

on wellbeing and adjustment. It would appear that further exploring the integration of interpersonal theoretical models and resentful embittered personality as well as other personality and social environmental factors that may confer increased psychosocial risk, are fruitful avenues to investigate (Gallo & Smith, 1999). In the same vein, the transactional effects of the resentful embittered personality style may also be of significant importance in showing that it may “pull for” certain kinds of complementary personal and social responses in others within a social environment, such as contested dominance, control, and submissiveness (Kiesler, 1996; Pincus & Ansell, 2003). One other area to explore would be how the resentful embittered personality interacts with self-silencing (Jack, 1991), and how gender effects, which were not robust in these studies, may show up in moderator analyses between these two variables.

Silencing of the self theory (Jack, 1991) holds that depression in women is highly related to social conforming roles, which shape girls and women to silence themselves when faced with conflict. Other researchers have noted that self-silencing has been highly related to depression, regardless of sex (Gratch, Bassett and Attra, 1995). Also, while the REPS was investigated with respect to its psychological and interpersonal effects, it may be interesting to study the extent to which it has similar predictive validity for physical health problems similar to more traditional measures of hostility and anger. Though the fourth study attempted to address test-retest reliability of the data over a six-month period, a more rigorous prospective and developmental course perspective over many years would go a long way to establish it as an enduring problematic personality trait that may consistently foreshadow relationship problems and psychological distress. Finally, future research is needed to explore sex differences more fully, as well as cultural differences, particularly between western and Asian cultures where there may be very different normative styles of expressing or coping with emotions and perceived interpersonal stress.

The current studies were generally limited in that most of the research was correlational and not prospective; therefore, any comments about causality or questions regarding the etiological causes or long-term consequences for the resentful embittered personality cannot be answered thoroughly at this time. Furthermore, two of the studies failed to address potential sex differences due to a lack of male participants, however, the final two studies were able to examine it to some extent. Also, as with all personality, social and clinical research, the effects of cultural context needs was not taken into account and thus conclusions can only be generalized to a North American, adult, urban population. It is likely that resentful embittered personality has differential effects outside of North American social settings given wide ranges of cultural-behavioural differences in the expression of resentment.

Treatment Implications

Without knowing how resentful embittered personality traits are created or learned, it is difficult to be sure, at this stage, how to offer treatment. It is certain, however, that individuals who experience this personality style, are likely in need of early identification, need for therapeutic assistance, and effective interventions to limit the negative and cumulative personal and interpersonal costs. In searching for therapeutic models to help address these difficulties, it may be helpful look to similar personality and behavioural problems such as Cognitive Behavioural Therapy interventions that address externalizing problems related to anger (e.g., McKay, Rogers & McKay, 2003), paranoia (e.g., Morrison, Renton, Dunn, Williams & Bentall, 2003), or Dialectical Behavioural approaches for emotional dysregulation (e.g., McKay, Wood & Brantley, 2007). In addition, therapeutic interventions related to depression, which is presumed to underlie or exacerbate the externalizing behaviours, may also be important to consider, including CBT for Depression (e.g., Beck, Rush, Shaw & Emery, 1979) or even Interpersonal Psychotherapy which focuses particularly on relationships and the importance of creating and

nurturing a social support system (e.g., Stuart & Robertson, 2012). Evidenced-based treatment protocols are available for all of these therapeutic foci which are thought to be related to issues involving resentful embittered personality and its sequelae. In addition, mindfulness may also be of benefit and has recently been adapted to address particular issues related to depression (e.g., Williams, Teasdale, Segal & Kabat-Zinn, 2007) and anger (e.g., Bankhart, 2006). Finally micro skill training for improving interpersonal communication and assertiveness may also be helpful with these individuals to help them to address how to get their own needs met, while still valuing and respecting the needs of others (e.g., Patterson, 2000).

Conclusion

In summary, the four studies found that the Resentful Embittered Personality Questionnaire showed excellent internal reliability as well as test-retest reliability. Similarly, the REPS demonstrated consistent convergent validity, divergent validity, and construct validity across the four studies. The resentful embittered personality was found to predict significantly worse levels of distress and interpersonal adjustment, over and above those of other personality and stress variables in the studies. It also predicted distress and marital adjustment difficulties six months later, indicative of its apparent robust predictive clinical utility. While both the negative affectivity and interpersonal theories of depression were partially supported by the evidence in these studies and may both help to further explicate the theoretical mechanisms underlying this personality style, further research is needed to determine which of these theoretical models may be more influential in understanding the resentful embittered personality style. Regardless, the collective findings of these studies seem to paint an impression of the high trait resentful embittered personality individual as one who is deeply fragile and fearful of being wounded socially, thus the resentful embittered personality style likely serves both an ego-defensive and interpersonal defensive function. Indeed the interpersonal spheres play a huge role in creating

and maintaining one's self concept. While social interactions also serve as possible sources of feedback to modify self-concepts, self-defeating strategies such as those indicated with the resentful embittered personality style, may perpetually prevent such new modifying information to be adequately perceived and may pave the way for interpersonal feedback that confirms negative self and other beliefs that maintain their distrustful and resentful embittered personality style. It appears that this personality style may even be a negative prognostic indicator of intimate marital relationship stability, satisfaction, and adjustment making it a very important and valid personality construct to consider in clinical and interpersonal practice and research.

Table 1

Study 1 Descriptive Statistics & Correlation with REPS

Measure	M	SD	REPS Bivariate Correlation (sig)	α
REPS	98.92	26.64	1.00 (N/A)	.93
N_TOT	35.92	9.03	.76 (.000)	.90
E_TOT	43.02	5.98	-.24 (.011)	.76
O_TOT	40.24	5.48	.10 (.281)	.68
A_TOT	43.05	6.21	-.45 (.000)	.77
C_TOT	39.25	5.21	-.28 (.003)	.75
HAT Physical Aggression	1.33	0.58	.34 (.000)	.91
HAT Revenge	1.60	0.75	.33 (.000)	.91
HAT Derogation of Others	2.36	0.88	.36 (.000)	.91
HAT TOTAL	1.76	0.63	.40 (.000)	.95
IIP-SC TOTAL	2.38	0.58	.63 (.000)	.91
IIP-SC PA –Domineering	2.01	0.71	.46 (.000)	.61
IIP-SC BC –Vindictive	1.83	0.60	.52 (.000)	.52
IIP-SC DE –Cold	1.88	0.85	.43 (.000)	.82
IIP-SC FG –Socially Avoidant	2.03	0.94	.43 (.000)	.86
IIP-SC HI –Non-Assertive	2.72	0.99	.32 (.001)	.83
IIP-SC JK –Exploitable	2.81	0.94	.51 (.000)	.74
IIP-SC LM –Overly Nurturant	3.24	0.81	.38 (.000)	.74
IIP-SC NO –Intrusive	2.52	0.97	.44 (.000)	.80
IAS PA –assured-dominant	4.67	0.99	-.33 (.000)	.80

IAS BC –competitive-mistrusting	3.49	1.04	.12 (.204)	.77
IAS DE –cold-hostile	2.28	0.81	.19 (.048)	.72
IAS FG –detached-inhibited	2.91	1.12	.38 (.000)	.87
IAS HI –unassured-submissive	4.02	1.03	.28 (.000)	.75
IAS JK –defferent-trusting	4.32	1.02	.11 (.247)	.71
IAS LM –warm-friendly	6.24	0.76	-.07 (.457)	.81
IAS NO –sociable-exhibitionistic	5.65	0.99	-.37 (.000)	.78
IAS B5 Extraversion	4.83	0.90	-.34 (.000)	.85
IAS B5 Agreeableness	6.48	0.70	-.15 (.124)	.84
IAS B5 Conscientiousness	5.78	0.88	-.14 (.153)	.91
IAS B5 Neuroticism	4.74	0.98	.59 (.000)	.90
IAS B5 Openness to new experience	5.41	0.82	.02 (.844)	.87
ASI preoccupied	3.08	1.14	.35 (.000)	.86
ASI fearful	3.93	0.96	.35 (.000)	.62
ASI secure	4.56	0.73	-.58 (.000)	.63
CABS chararcterological self-blame	16.41	5.86	.41 (.000)	.64
CABS behavioral self-blame	19.41	5.81	.28 (.003)	.69
CABS chararcterological other-blame	20.05	5.99	.44 (.000)	.66
CABS behavioral other-blame	22.11	5.58	.36 (.000)	.57
CABS circumstance blame	21.36	5.09	-.05 (.593)	.51
CABS luck-blame	14.65	7.31	.16 (.103)	.77
CYNICISM – MMPI	10.93	4.59	.40 (.000)	.81
BIDRTOT	76.91	13.28	-.26 (.005)	.69
Relationship Questionnaire – Pre-occupied	3.21	1.85	.29 (.003)	NA
Relationship Questionnaire – Secure	4.50	1.63	-.27 (.005)	NA
Relationship Questionnaire – Anxious	3.61	1.96	.32 (.001)	NA
Relationship Questionnaire – Dismissive	3.79	1.70	.27 (.005)	NA

Table 2

Study 2 Descriptive Statistics, Zero-order Correlations with REPS, & Cronbach's Alpha Reliabilities

Measures	M	SD	REPS Bivariate Correlation (sig)	α
REPS	98.12	27.17	1.00 (N/A)	.86
N	148.62	24.77	.75 (.000)	.93
E	168.37	18.94	-.28 (.000)	.88
O	166.07	17.37	.04 (.545)	.87
A	161.88	18.22	-.34 (.000)	.88
C	161.04	18.37	-.28 (.000)	.88
N1	27.50	5.14	.60 (.000)	.75
N2	23.47	5.48	.55 (.000)	.78
N3	24.56	6.35	.72 (.000)	.86
N4	24.65	5.07	.64 (.000)	.72
N5	25.97	4.07	.42 (.000)	.55
N6	22.47	5.23	.57 (.000)	.80
E1	31.38	4.06	-.25 (.000)	.71
E2	27.69	5.25	-.16 (.028)	.72
E3	24.73	4.97	-.31 (.000)	.75
E4	25.67	4.06	-.15 (.034)	.59
E5	28.94	4.74	.04 (.561)	.63
E6	29.97	4.72	-.29 (.000)	.75
O1	28.32	4.97	.03 (.741)	.77
O2	28.07	5.58	.17 (.020)	.79
O3	30.02	3.89	.17 (.016)	.59

O4	24.78	3.60	-.21 (.004)	.51
O5	27.47	5.03	-.01 (.949)	.78
O6	29.06	3.61	-.06 (.389)	.58
A1	25.36	5.18	-.46 (.000)	.83
A2	26.73	5.06	-.29 (.000)	.74
A3	31.60	4.31	-.35 (.000)	.77
A4	23.79	4.82	-.31 (.000)	.69
A5	25.68	4.70	.16 (.027)	.73
A6	28.74	2.99	-.03 (.720)	.35
C1	28.01	3.61	-.37 (.000)	.58
C2	26.03	4.37	-.05 (.511)	.62
C3	28.75	4.13	-.14 (.053)	.58
C4	27.04	4.07	-.14 (.047)	.69
C5	25.73	5.15	-.34 (.000)	.80
C6	25.48	4.32	-.16 (.026)	.71

Note:

N = Neuroticism

N1= anxiety

N2= angry hostility

N3= depression

N4= self-consciousness

N5= impulsivity

N6= vulnerability

O = Openness

O1= fantasy

O2= aesthetics

O3= feelings

O4= actions

O5= ideas

O6= values

C = Conscientiousness

C1= competence

C2= order

C3= dutifulness

C4= achievement striving

C5= self-discipline

C6= deliberation

E = Extraversion

E1= warmth

E2= gregariousness

E3= assertiveness

E4= activity

E5= excitement seeking

E6= positive emotions

A = Agreeableness

A1= trust

A2= straightforwardness

A3= altruism

A4= compliance

A5= modesty

A6= tender-mindedness

Table 3

Study 3 Means, Standard Deviations, Internal Reliabilities and Univariate F-tests for sex

Measures	Total Sample		Women (n=62)		Men (n=74)		sex diff	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	<u>F(sig)</u>	<u>α</u>
REPS	98.31	24.26	100.34	25.10	96.61	23.56	0.79	.92
CES-D	17.98	10.25	17.97	11.60	8.00	9.05	0.00	.89
RMAS - total	233.74	33.84	235.87	35.58	231.95	32.44	0.45	.95
RMAS - autonomy	38.00	7.57	38.10	7.67	37.92	7.54	0.02	.84
RMAS – environ mastery	35.86	6.93	35.36	6.16	36.28	7.53	0.59	.81
RMAS – personal growth	40.93	6.68	40.86	7.42	40.99	6.04	0.01	.77
RMAS – positive relations	40.82	7.23	42.90	7.16	39.07	6.87	10.13***	.79
RMAS - purpose in life	39.53	7.40	39.81	7.70	39.30	7.18	0.16	.79
RMAS – self-acceptance	38.60	7.76	38.85	7.43	38.40	8.07	0.11	.84
IPSM - total	85.72	11.04	85.50	14.04	85.90	13.18	0.03	.88
IPSM – interpersonal aware	16.52	4.13	16.50	4.39	16.53	3.92	0.02	.76
IPSM – need for approval	13.50	3.41	13.18	3.05	13.77	3.69	1.00	.64
IPSM – separation anxiety	21.21	4.36	21.40	4.79	21.06	3.99	0.00	.74
IPSM – timidity	19.14	3.73	18.86	3.53	19.38	3.90	0.68	.66
IPSM – fragile inner self	15.35	2.98	15.57	3.17	15.16	2.83	0.66	.68
IPSM – separation anxiety	21.21	4.36	21.40	4.79	21.06	3.99	0.00	.74
LES – total	29.88	27.55	32.32	33.68	27.82	21.12	0.89	N/A
LES - negative	-8.62	11.03	-8.24	5.78	-8.93	14.03	0.13	N/A
LES - positive	38.49	27.79	40.56	34.51	36.76	20.65	0.63	N/A

* $p < .05$

** $p < .01$

*** $p < .005$

**** $p < .001$

Table 4

Study 3 Bivariate Correlations with Resentful Embittered Personality (REPS)

Measures	Total Sample	Men	Women
Depression (CES-D)			
CES-D	.60**	.53**	.67**
Negative Social Interactions (INSI)	.44**	.37**	.54**
Wellbeing (RMAS)			
RMAS – total	-.54**	-.47**	-.64**
RMAS – autonomy	-.47**	-.43**	-.53**
RMAS – env. mastery	-.55**	-.49**	-.64**
RMAS – personal growth	-.28**	-.19	-.37**
RMAS – positive relations	-.37**	-.32**	-.47**
RMAS – purpose in life	-.35**	-.27**	-.44**
RMAS – self-acceptance	-.55**	-.43**	-.69**
Interpersonal Sensitivity (IPSM)			
IPSM – total	-.58**	-.52**	-.64**
IPSM – interpersonal aware	-.55**	-.51**	-.59**
IPSM – need for approval	-.21**	-.34**	-.03
IPSM – separation anxiety	-.59**	-.49**	-.69**
IPSM – timidity	-.27**	-.17	-.41**
IPSM – fragile inner self	-.46**	-.43**	-.50**
Life Event Stress (LES)			
LES – total	.05	.01	.10
LES – negative	-.07	-.05	-.18
LES – positive	.09	.04	.15

Note. * $p < .05$ ** $p < .001$

Table 5

Study 3 Regression Equations for Personality Measures Predicting Depression

Full Sample	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.250	.250	-.189	51.60	1, 155	<.001	-.169	-3.01	.003
B2: REPS	.396	.146	.382	37.18	1, 154	<.001	.190	6.10	<.001
Men	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.183	.183	-.179	18.56	1, 83	<.001	-.134	-1.96	.054
B2: REPS	.312	.129	.360	18.62	1, 82	<.001	.154	3.93	<.001
Women	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.333	.333	-.192	34.92	1, 70	<.001	-.209	-2.219	.03
B2: REPS	.484	.151	.389	32.38	1, 69	<.001	.226	4.498	<.001

Table 6

Study 3 Regression Equation for Personality Measures Predicting Wellbeing

Full Sample	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.309	.309	.297	69.24	1, 155	<.001	.911	4.69	<.001
B2: REPS	.384	.075	-.274	18.69	1, 154	<.001	-.466	-4.32	<.001
Men	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.268	.268	.324	30.46	1, 83	<.001	.912	3.56	.001
B2: REPS	.322	.053	-.231	19.43	2, 82	<.001	-.373	-2.54	.013
Women	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: IPSM	.365	.333	.256	40.29	1, 70	<.001	.873	2.921	.005
B2: REPS	.469	.103	-.322	30.44	2, 69	<.001	-.585	-3.665	<.001

Table 7

Study 3 Regression Equation for Stress Measures and REPS Predicting Depression

Full Sample	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			-.095				-.091	-1.42	NS
INSI	.217	.217	.210	18.43	2, 133	<.001	.106	3.15	.002
B2: REPS	.415	.197	.444	44.51	1, 132	<.001	.206	6.67	<.001
B3: REPSxLES	.449	.035	-.186	8.27	1,131	.005	-.010	-2.88	.005
Men	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			-.092				-.061	-0.95	NS
INSI	.154	.154	.175	6.47	2, 71	.003	.073	1.82	NS
B2: REPS	.343	.189	.435	20.13	1, 70	<.001	.180	4.49	<.001
Women	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			-.164				-.344	-1.80	NS
INSI	.336	.336	.229	14.93	2, 59	<.001	.145	2.50	.015
B2: REPS	.515	.179	.423	21.38	1, 58	<.001	.223	4.62	<.001

Table 8

Study 3 Regression Equation for Stress Measures and REPS Predicting Well-being for Men and Women

Full Sample	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			.098				.308	1.35	NS
INSI	.110	.110	-.087	8.23	2, 133	<.001	-.144	-1.20	NS
B2: REPS	.308	.198	-.445	37.74	1, 132	<.001	-.681	-6.14	<.001
B3:REPSxLES	.339	.031	-.176	6.13	1,131	.015	-.010	-2.47	.015
Men	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			.127				.300	1.27	NS
INSI	.109	.109	-.098	4.33	2, 71	.017	-.147	0.99	NS
B2: REPS	.302	.193	-.439	19.32	1, 70	<.001	-.650	-4.40	<.001
Women	R2	R2-Ch	Part-R	F-change	df	p-value	B	t-test	sig
B1: N-LES			.047				.300	0.43	NS
INSI	.113	.113	-.052	3.76	2, 59	.029	-.100	-0.48	NS
B2: REPS	.327	.214	-.462	18.42	1, 58	<.001	-.749	-4.29	<.001

Table 9

Study 4 Means, Standard Deviations and Univariate F-tests for Sex Effects

Measures	Total Sample		Mothers			Fathers		ANOVA	
	Mean	SD	N	Mean	SD	N	Mean	SD	F(sig)
REPS	83.24	25.18	144	84.98	25.61	140	81.46	24.69	0.59
EPDS – (pre)	16.69	4.25	146	17.31	4.29	145	16.02	4.14	4.23 *
EPDS – (post)	17.31	4.59	100	18.08	5.05	97	16.50	3.87	0.02
DAS – total (pre)	111.89	10.62	146	111.90	10.99	141	111.88	10.29	0.00
DAS – consensus (pre)	49.32	5.92	93	49.58	6.04	88	49.05	5.81	0.36
DAS – satisfaction(pre)	35.36	2.88	93	34.86	3.02	88	35.89	2.63	5.97 *
DAS – cohesion (pre)	17.88	3.25	93	18.18	3.24	88	17.57	3.25	1.64
DAS – expression (pre)	9.36	1.12	93	9.33	1.81	88	9.40	1.84	0.07
DAS – total (post)	108.52	11.65	93	108.92	11.12	88	108.10	12.24	0.22
DAS – consensus (post)	49.92	6.15	93	50.07	6.10	88	49.77	6.22	0.11
DAS – satisfaction(post)	34.59	5.44	93	34.12	5.34	88	35.08	5.52	1.44
DAS – cohesion (post)	16.83	3.58	93	17.03	3.53	88	16.61	3.64	0.62
DAS – expression (post)	8.30	1.46	93	8.48	1.29	88	8.11	1.60	3.06
RAM – internal locus	13.96	4.38	142	14.50	4.49	138	13.39	4.22	2.92
RAM – external locus	12.36	4.24	142	11.34	3.89	138	13.44	4.36	11.76
** RAM – stability	9.72	3.49	142	9.24	3.58	138	10.22	3.34	3.67 *
RAM – globality	9.93	4.09	141	9.63	4.39	138	10.25	3.76	1.05
RAM – intent	9.25	4.14	141	8.79	4.24	139	9.74	3.99	2.42
RAM – motivation	8.79	4.25	141	9.04	4.50	139	8.54	3.98	0.62
RAM – blame	9.35	4.08	141	10.24	4.36	139	8.41	3.55	9.55

* $p < .05$ ** $p < .01$ *** $p < .005$ **** $p < .001$

Table 10

Study 4 Internal Consistencies (Alpha) and Bivariate Correlations with REPS for Fathers and Mothers

Measures	α (items)	Bivariate Correlations	
		Fathers	Mothers
REPS	.93 (26)		
EPDS – (pre)	.80 (10)	.45 ****	.50 ****
EPDS – (post)	.73 (10)	.23 *	.42 ****
Dyadic Adjustment			
DAS – total (pre)	.82 (32)	-.18 *	-.24 ***
DAS – consensus (pre)	.82 (13)	-.26 ***	-.25 ***
DAS – satisfaction (pre)	.25 (5)	-.05	-.23 ***
DAS – cohesion (pre)	.72 (10)	-.06	-.14
DAS – expression (pre)	.26 (4)	-.06	-.13
DAS – total (post)	.82 (32)	-.18	-.33 ***
DAS – consensus (post)	.81 (13)	-.19	-.37 ****
DAS – satisfaction (post)	.80 (5)	-.16	-.11
DAS – cohesion (post)	.21 (10)	-.09	-.06
DAS – expression (post)	.55 (4)	-.10	-.13
Relationship Attribution			
RAM – total	.93 (28)	.25 ***	.33 ****
RAM – internal locus	.79 (4)	.15	.13
RAM – external locus	.79 (4)	.23 **	.16
RAM – stability	.76 (4)	.24 ***	.47 ****
RAM – globality	.81 (4)	.26 ***	.29 ***
RAM – intent	.78 (4)	.14	.28 ***
RAM – motivation	.89 (4)	.22 **	.27 ***
RAM – blame	.86 (4)	.19 *	.17 *

* $p < .05$ ** $p < .01$ *** $p < .005$ **** $p < .001$

Table 11
Study 4 Regression Equation Predicting Dyadic Adjustment

	R2	R2-Ch	Part-R	F	df	p-value	B	t-test	sig
Fathers									
B1: RAM	.089	.089	-.261	13.11	1, 134	<.001	-.159	3.17	.002
B2: REPS	.100	.011	-.105	1.62	1, 133	.205	-.071	-1.27	.205
Mothers									
B1: RAM	.138	.138	-.300	22.01	1, 138	<.001	-.191	-3.83	<.001
B2: REPS	.159	.022	-.148	3.57	1, 137	.061	-.072	-1.89	.061

Note. for all regression tables in this study, the term R2-Change in the first column refers only to Block 2. Block 1, technically should be referred to as R2 since it is the first predictor in the regression equation. All other coefficients listed under the same column are in fact semi-partial correlation coefficients which contribute to the R2-Change value within the Block in which it is subsumed.

Table 12

Study 4 Regression Equation Predicting Time 1-Depression for Fathers and Mothers

	R2	R2-Ch	Part-R	F	df	p-value	B	t-test	sig
Fathers									
B1: RAM	.065	.065	.133	1.26	1, 134	.003	.028	1.79	.075
B2: REPS	.270	.205	.453	9.14	1, 133	<.001	.071	6.12	<.001
Mothers									
B1: RAM	.056	.056	.061	8.02	1, 136	.003	.013	0.83	.411
B2: REPS	.251	.196	.442	35.32	1, 135	<.001	.073	5.94	<.001

Table 13

Study 4 Regression Equation Predicting Time 2-Depression for Fathers and Mothers

	R2	R2-Ch	Part-R	F	df	p-value	B	t-test	sig
Fathers									
B1: RAM	.000	.014	.072	1.26	1, 87	.265	.014	0.71	.481
B2: REPS	.109	.095	.308	9.14	1, 86	.003	.042	3.02	.003
Mothers									
B1: RAM	.058	.058	.073	5.64	1, 92	.020	.018	0.79	.432
B2: REPS	.222	.162	.403	18.93	1, 91	<.001	.078	4.35	<.001

Table 14

Study 4 Repeated Measures ANOVA Predicting Depression Over Time by REPS Category and Sex

Multivariate Effects	F-value	df	Sig
Time	4.43	1,186	.037
Sex	9.04	1,186	.003
REPS (Low,Med,High)	14.48	2,186	<.001
Sex X Time	0.15	1, 186	.699
Sex X REPS	0.79	2, 186	.453
REPS X Time	1.60	2, 186	.204
REPS X Sex X Time	0.35	2, 186	.705

Table 15

Study 4 Means and Standard Deviations for Depression by Time, Sex, and REPS Category

Sex	REPS	Depression Time 1		Depression Time 2	
		M	SD	M	SD
Women	Low	15.16	3.66	16.45	4.77
	Med	16.82	3.48	17.61	4.18
	High	19.58	4.29	20.03	5.31
Men	Low	14.13	2.97	15.97	4.31
	Med	15.80	4.76	15.89	3.21
	High	17.61	3.69	17.43	3.89
	Total	15.81	4.13	16.38	3.82

Table 16

Study 4 Means and Standard Deviations for Dyadic Adjustment by Time, Sex, and REPS category

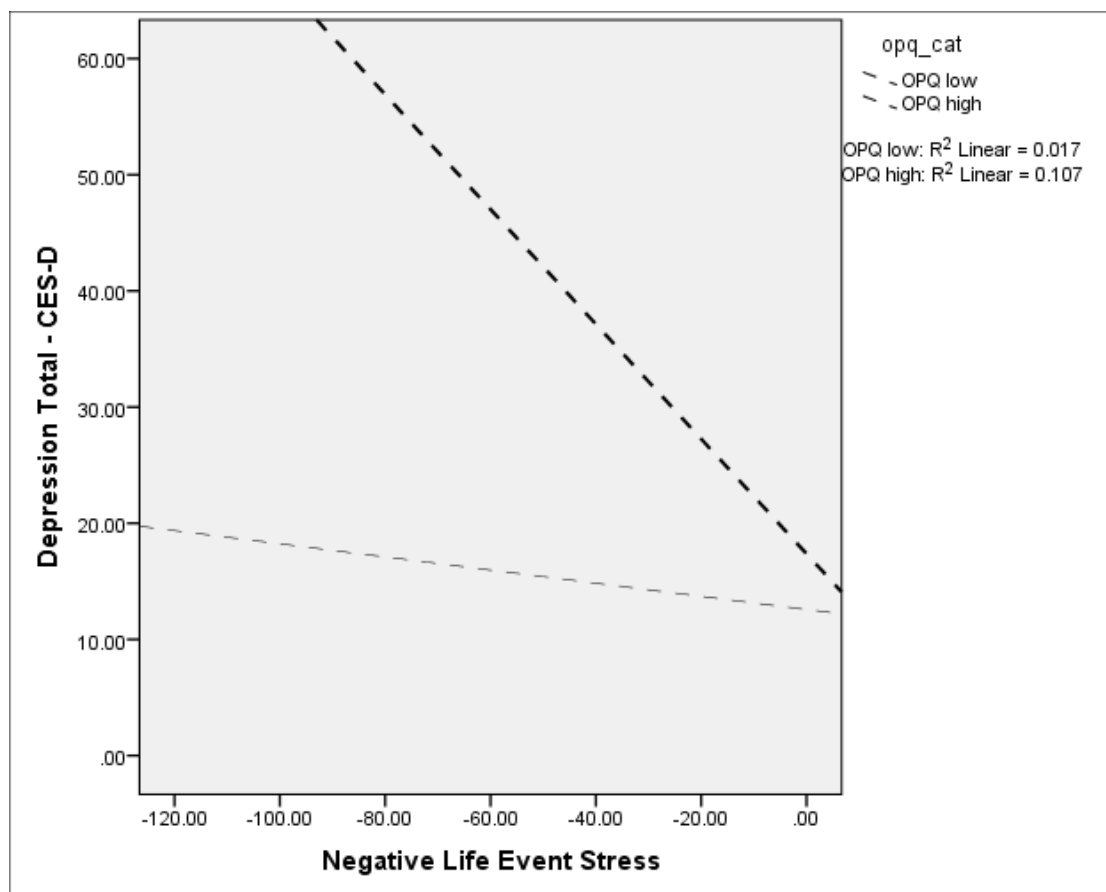
Sex	REPS	Dyadic Adjustment Time 1		Dyadic Adjustment Time 2	
		Mean	Std Dev	Mean	Std Dev
Mothers	Low	113.53	8.26	120.03	13.74
	Med	111.95	7.69	117.24	10.32
	High	105.53	13.15	111.82	9.73
	Total	110.24	10.55	116.25	11.71
Fathers	Low	109.74	8.87	115.71	14.38
	Med	109.26	7.48	115.94	14.04
	High	108.59	13.29	111.44	12.46
	Total	109.23	9.85	114.54	13.71

Table 17

Study 4 Repeated Measures ANOVA predicting Dyadic Adjustment over time by REPS and Sex

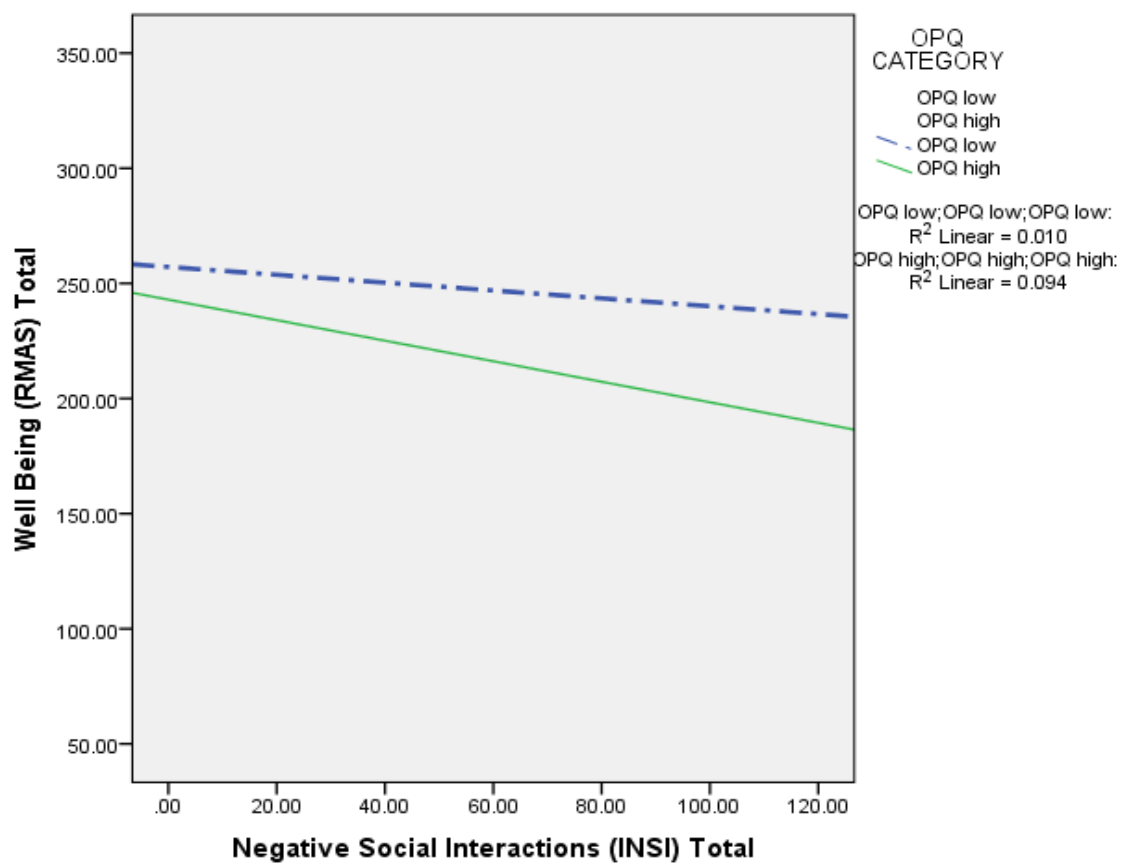
Multivariate Effects	F-value	df	Sig
Time	34.98	1,185	<.001
Sex	1.35	1,185	.246
REPS (Low,Med,High)	5.76	1,185	.004
Sex X Time	0.21	1,185	.649
Sex X REPS	1.32	2,185	.271
REPS X Time	0.29	2,185	.749
REPS X Sex X Time	0.55	2,185	.575

Figure 1. Moderating Effects of REPS with Negative Life Event Stress in Predicting Wellbeing



Note: REPS = OPQ

Figure2 . Moderating Effects of REPS with Negative Social Interactions in Predicting Wellbeing



Note: REPS = OPQ

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Appendices

Appendix A	Study One Measures
Appendix B	Study Two Measures
Appendix C	Study Three Measures
Appendix D.....	Study Four Measures

Appendix A
Psychology Consent Form

I hereby volunteer to participate as a subject in a research study conducted by Vytas Velyvis which is under the supervision of Dr. Gordon Flett, Professor, Department of Psychology, York University.

This study examines the relationship among personality traits, adjustment, and distress. I will be required to complete a single package of self-report questionnaires. I will be compensated by receiving credit towards my introduction to Psychology class for my participation in this study.

I understand that there is no reason to believe that by volunteering for this study I will be placing myself in any physical or mental danger and I may withdraw from the project at any time without prejudice or consequence. I also understand that I am free to refuse to answer any questions in this project at any time. I also understand that there are several potential benefits to participating in this research including my gaining a better awareness of how my and others traits are related to adjustment to stress. I also am aware that by participating in this project I am helping to expand scientific knowledge in the field of psychology which may be helpful to others in the future.

I have been assured that only a code number will be assigned to the data to preserve my anonymity and that no one besides myself and Dr. Gordon Flett will have access to the data records.

If requested, a more complete explanation of the purposes and results of this study will be given to each participant following the termination of the study as a whole.

Dated at Toronto, this _____ day of _____, 2000.

Name (please print)

Signature

Witness

Biographical Information

Subject #: _____

Age: _____

Sex: (circle) M or F

Raised mainly in (check one) Rural Community ____ or Urban community ____

1. Married/Common Law ____ or Single ____ or Divorced ____

2. **Highest level of education** completed and if currently in a program indicate year

Grade school or partial highschool ____
Highschool Education ____
College Diploma ____
University Degree (undergraduate) ____
Post-University Degree (graduate) ____

3. If currently in university program, **what year are you in?** (indicate number of years you have been an undergraduate student) _____

4. What is your **current employment status?** (please check one)

Working full time ____
Working part time ____
Unemployed ____
Other ____

REPS

Please indicate the extent of your agreement or disagreement with each of the following statements by circling a number between "1" and "7", according to the scale shown below. Please respond to each item in terms of your usual or typical views.

- 1 = totally disagree
 2 = disagree very much
 3 = disagree slightly
 4 = neutral
 5 = agree slightly
 6 = agree very much
 7 = totally agree

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. At times, I consider myself a target for other people's anger | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I am hurt by the fact that some people cannot accept me the way I really am | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. I do not feel bitter about the way that people have treated me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. There have been too many times when people have taken me for granted | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I cannot avoid building up strong resentments as a result of the way I have been treated | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. It is easy for me to "forgive and forget" | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. I sometimes wonder why I am a target for unfair criticism | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. In the past, certain people have caused me a lot of pain | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

REPS (cont'd)

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9. People have always given me the attention I deserve | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. At times I am bitter because people demand too much from me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. At times, I can't help feeling ignored | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I am fortunate that other people have not caused many problems for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. I am sometimes made to feel like there is something wrong with me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. People have done things to take some of the joy out of my life | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. I often wonder why people don't give me the support I deserve | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. People have never made me feel ashamed of myself | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. There have been too many times when people have taken advantage of me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. I am overwhelmed by the unfair demands placed on me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. At times, I have been made to feel insignificant or unimportant | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. I never have the feeling that people have abandoned me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. I resent the fact that that some people have too much power over me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. I can vividly recall things that people have done to make me suffer | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

REPS (cont'd)

23. There have been times when some key
 people in my life have made me feel like
 I don't deserve their affection or approval 1 2 3 4 5 6 7
24. The thought that certain people do not like
 me is a constant source of annoyance 1 2 3 4 5 6 7
25. Although it is painful, I can recall many things that
 people have done to take away from my
 happiness 1 2 3 4 5 6 7
26. The actions of certain people have caused
 me to question my goals and commitments 1 2 3 4 5 6 7

NEO-FFI

This questionnaire contains 60 statements. Read each statement carefully, for each statement, circle the response that best represents your opinion according to the following guidelines:

- SD** = *strongly disagree* or the statement is definitely false
D = *disagree* or the statement is most false
N = *neutral* on the statement, you cannot decide,
or the statement is about equally true or false.
A = *agree* or the statement is mostly true
SA = *strongly agree* or believe that the statement is definitely true

- | | | | | | |
|--|-----------|----------|----------|----------|-----------|
| 1. I am not a worrier. | SD | D | N | A | SA |
| 2. I like to have a lot of people around me. | SD | D | N | A | SA |
| 3. I don't like to waste my time daydreaming. | SD | D | N | A | SA |
| 4. I try to be courteous to everyone I meet. | SD | D | N | A | SA |
| 5. I keep my belongings clean and neat. | SD | D | N | A | SA |
| 6. I often feel inferior to others. | SD | D | N | A | SA |
| 7. I laugh easily. | SD | D | N | A | SA |
| 8. Once I find the right way to do something, I stick to it. | SD | D | N | A | SA |
| 9. I often get into arguments with my family and co-workers. | SD | D | N | A | SA |
| 10. I'm pretty good about pacing myself
so as to get things done on time. | SD | D | N | A | SA |
| 11. When I'm under a great deal of stress,
sometimes I feel like I'm going to pieces. | SD | D | N | A | SA |
| 12. I don't consider myself especially "light-hearted". | SD | D | N | A | SA |
| 13. I am intrigued by the patterns I find in art and nature. | SD | D | N | A | SA |
| 14. Some people think I'm selfish and egotistical. | SD | D | N | A | SA |
| 15. I am not a very methodical person. | SD | D | N | A | SA |
| 16. I rarely feel lonely or blue. | SD | D | N | A | SA |
| 17. I really enjoy talking to people. | SD | D | N | A | SA |

NEO (cont'd)

18. I believe letting students hear controversial speakers can only confuse and mislead them.	SD	D	N	A	SA
19. I would rather cooperate with others than compete with them.	SD	D	N	A	SA
20. I try to perform all the tasks assigned to me conscientiously.	SD	D	N	A	SA
21. I often feel tense and jittery.	SD	D	N	A	SA
22. I like to be where the action is.	SD	D	N	A	SA
23. Poetry has little or no effect on me.	SD	D	N	A	SA
24. I tend to be cynical and skeptical of others' intentions.	SD	D	N	A	SA
25. I have a clear set of goals and work toward them in an orderly fashion.	SD	D	N	A	SA
26. Sometimes I feel completely worthless.	SD	D	N	A	SA
27. I usually prefer to do things alone.	SD	D	N	A	SA
28. I often try new and foreign foods.	SD	D	N	A	SA
29. I believe that most people will take advantage of you if you let them.	SD	D	N	A	SA
30. I waste a lot of time before settling down to work.	SD	D	N	A	SA
31. I rarely feel fearful or anxious.	SD	D	N	A	SA
32. I often feel as if I'm bursting with energy.	SD	D	N	A	SA
33. I seldom notice the moods or feelings that different environments produce.	SD	D	N	A	SA
34. Most people I know like me.	SD	D	N	A	SA
35. I work hard to accomplish my goals.	SD	D	N	A	SA
36. I often get angry at the way people treat me.	SD	D	N	A	SA
37. I am a cheerful, high-spirited person.	SD	D	N	A	SA
38. I believe we should look to our religious authorities for decisions on moral issues.	SD	D	N	A	SA
39. Some people think of me as cold and calculating.	SD	D	N	A	SA

NEO (cont'd)

40. When I make a commitment, I can always be counted on to follow through.	SD	D	N	A	SA
41. Too often, when things go wrong, I get discouraged and feel like giving up.	SD	D	N	A	SA
42. I am <u>not</u> a cheerful optimist.	SD	D	N	A	SA
43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.	SD	D	N	A	SA
44. I'm hard-headed and tough-minded in my attitudes.	SD	D	N	A	SA
45. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.	SD	D	N	A	SA
46. I am seldom sad or depressed.	SD	D	N	A	SA
47. My life is fast-paced.	SD	D	N	A	SA
48. I have little interest in speculating on the nature of the universe or the human condition.	SD	D	N	A	SA
49. I generally try to be thoughtful and considerate.	SD	D	N	A	SA
50. I am a productive person who always gets the job done.	SD	D	N	A	SA
51. I often feel helpless and want someone else to solve my problems.	SD	D	N	A	SA
52. I am a very active person.	SD	D	N	A	SA
53. I have a lot of intellectual curiosity.	SD	D	N	A	SA
54. If I don't like people, I let them know it.	SD	D	N	A	SA
55. I never seem to be able to get organized.	SD	D	N	A	SA
56. At times I have been so ashamed I just wanted to hide.	SD	D	N	A	SA
57. I would rather go my own way than be a leader to others.	SD	D	N	A	SA
58. I often enjoy playing with theories or abstract ideas.	SD	D	N	A	SA
59. If necessary, I am willing to manipulate people to get what I want.	SD	D	N	A	SA
60. I strive for excellence in everything I do.	SD	D	N	A	SA

HAT

Please take a few seconds to think about the previous week. Read and respond to each of the statements below according to how frequently each of these thoughts (or ones similar to it) occurred in the last week for any situations that you have been involved with.

1 = not at all, 2 = sometimes, 3 = moderately often, 4 = often, 5 = all the time

- | | | | | | |
|---|---|---|---|---|---|
| 1. I hate this person so much I could kill him/her | 1 | 2 | 3 | 4 | 5 |
| 2. I have to get this person back | 1 | 2 | 3 | 4 | 5 |
| 3. What an idiot! | 1 | 2 | 3 | 4 | 5 |
| 4. I want to kill this person! | 1 | 2 | 3 | 4 | 5 |
| 5. This person is a loser. | 1 | 2 | 3 | 4 | 5 |
| 6. I want to get back at this person. | 1 | 2 | 3 | 4 | 5 |
| 7. What a jerk! | 1 | 2 | 3 | 4 | 5 |
| 8. I just want to hurt this person as bad as s/he hurt me. | 1 | 2 | 3 | 4 | 5 |
| 9. I wish this person was dead. | 1 | 2 | 3 | 4 | 5 |
| 10. I hate stupid people. | 1 | 2 | 3 | 4 | 5 |
| 11. If I could get away with it, I'd kill this person! | 1 | 2 | 3 | 4 | 5 |
| 12. I want to get revenge. | 1 | 2 | 3 | 4 | 5 |
| 13. I want to beat the hell out of this person! | 1 | 2 | 3 | 4 | 5 |
| 14. S/he is so annoying. | 1 | 2 | 3 | 4 | 5 |
| 15. I want to treat this person like s/he treated me. | 1 | 2 | 3 | 4 | 5 |
| 16. I'd like to knock his/her teeth out. | 1 | 2 | 3 | 4 | 5 |
| 17. What the hell is this person doing? | 1 | 2 | 3 | 4 | 5 |
| 18. I can think of a lot of terrible things
I'd like to see happen to that person. | 1 | 2 | 3 | 4 | 5 |
| 19. I want to smack this person. | 1 | 2 | 3 | 4 | 5 |
| 20. I'll show this person! | 1 | 2 | 3 | 4 | 5 |

HAT cont'd

- | | | | | | |
|--|---|---|---|---|---|
| 21. I think this person is rude. | 1 | 2 | 3 | 4 | 5 |
| 22. I want to hit this person. | 1 | 2 | 3 | 4 | 5 |
| 23. I should do something to this person. | 1 | 2 | 3 | 4 | 5 |
| 24. Why doesn't this person just shut up? | 1 | 2 | 3 | 4 | 5 |
| 25. I want to destroy something right now! | 1 | 2 | 3 | 4 | 5 |
| 26. When someone attacks me like this person did,
I attack them back. | 1 | 2 | 3 | 4 | 5 |
| 27. I wish they would just shut up and go away. | 1 | 2 | 3 | 4 | 5 |
| 28. If someone really wants to mess with me,
then they deserve to get roughed up. | 1 | 2 | 3 | 4 | 5 |
| 29. This person makes me feel angry. | 1 | 2 | 3 | 4 | 5 |
| 30. This person needs to be taught a lesson. | 1 | 2 | 3 | 4 | 5 |

IIP-SC

Please indicate the extent of your agreement with each of the following items, by circling a number between "1" and "5". Circle a "1" if your answer is "strongly disagree", and circle a "5" if your answer is "strongly agree". Circle a "3" if your answer is neither agree nor disagree.

	1	2	3	4	5
	strongly disagree		neither agree nor disagree		strongly agree
1. It is hard for me to understand another's point of view	1	2	3	4	5
2. It is hard for me to be supportive of another person's goals in life	1	2	3	4	5
3. It is hard for me to show affection to people	1	2	3	4	5
4. It is hard for me to join in groups	1	2	3	4	5
5. It is hard for me to tell a person to stop bothering me	1	2	3	4	5
6. It is hard for me to let another person know why I am angry	1	2	3	4	5
7. It is hard for me to attend to my own welfare when somebody else is needy	1	2	3	4	5
8. It is hard for me to keep things private from other people	1	2	3	4	5
9. I am too aggressive toward other people	1	2	3	4	5
10. It is hard for me to feel good about another person's happiness	1	2	3	4	5
11. It is hard for me to experience a feeling of love for another person	1	2	3	4	5
12. It is hard for me to introduce myself to new people	1	2	3	4	5
13. It is hard for me to confront people with problems that come up	1	2	3	4	5
14. It is hard for me to be assertive without worrying about hurting other person's feelings	1	2	3	4	5

IIP-SC cont'd

15. I try to please other people too much	1	2	3	4	5
16. I open up to people too much	1	2	3	4	5
17. I try to control other people too much	1	2	3	4	5
18. I am too suspicious of other people	1	2	3	4	5
19. It is hard for me to feel close to other people	1	2	3	4	5
20. It is hard for me to socialize with other people	1	2	3	4	5
21. It is hard for me to be assertive with another person	1	2	3	4	5
22. I am too easily persuaded by other people	1	2	3	4	5
23. I put other people's needs before my own too much	1	2	3	4	5
24. I want to be noticed too much	1	2	3	4	5
25. I argue with other people too much	1	2	3	4	5
26. I want to get revenge against people too much	1	2	3	4	5
27. I keep other people at a distance too much	1	2	3	4	5
28. It is hard for me to ask other people to get together socially with me	1	2	3	4	5
29. It is hard for me to be firm when I need to be	1	2	3	4	5
30. I let other people take advantage of me too much	1	2	3	4	5
31. I am affected by another person's misery too much	1	2	3	4	5
32. I tell personal things to other people too much	1	2	3	4	5

INTERPERSONAL ADJECTIVE SCALES

Form IASR-B5

On the front and back of this page are words used to describe people's personal characteristics. Please rate how accurately each word describes you as a person. Judge how accurately each word describes you on the following scale.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Extremely Inaccurate	very Inaccurate	quite inaccurate	Slightly Inaccurate	slightly accurate	quite accurate	very accurate	extremely accurate

For example, consider the word "**BOLD**". How accurately does that word describe you as a person? If you think this is a *quite accurate* description of you, you would write the number "**6**" in the space next to the word BOLD.

6 BOLD

If you think this word is *slightly inaccurate* as a description of you, you would write the number "4". If it is *very inaccurate* you would write "2", and so on...

It is very important that you do not skip any. If you are uncertain about the meaning of a word, please consult the definitions provided in the IASR-B5 Glossary.

<u>1</u> extremely inaccurate	<u>2</u> very Inaccurate	<u>3</u> quite inaccurate	<u>4</u> Slightly Inaccurate	<u>5</u> slightly accurate	<u>6</u> quite accurate	<u>7</u> very accurate	<u>8</u> extremely Accurate
____(001)	Introverted		____(022)	Anxious		____(043)	Forceful
____(002)	Assertive		____(023)	Abstract-thinking		____(044)	Wily
____(003)	Timid		____(024)	Philosophical		____(045)	Undisciplined
____(004)	Unargumentative		____(025)	Tender		____(046)	Sly
____(005)	Organized		____(026)	Hardhearted		____(047)	Systematic
____(006)	Boastful		____(027)	Unneighbourly		____(048)	Self-conscious
____(007)	Soft-hearted		____(028)	Worrying		____(049)	Iron-hearted
____(008)	Ruthless		____(029)	Literary		____(050)	Thorough
____(009)	Kind		____(030)	Uncharitable		____(051)	Untidy
____(010)	Tense		____(031)	Uncunning		____(052)	Unbold
____(011)	High-strung		____(032)	Hypersensitive		____(053)	Neighbourly
____(012)	Cheerful		____(033)	Extraverted		____(054)	Unorderly
____(013)	Unsparkling		____(034)	Unphilosophical		____(055)	Shy
____(014)	Tricky		____(035)	At ease		____(056)	Undemanding
____(015)	Unconventional		____(036)	Orderly		____(057)	Meek
____(016)	Inefficient		____(037)	Cocky		____(058)	Reflective
____(017)	Unaggressive		____(038)	Planful		____(059)	Inquisitive
____(018)	Unreflective		____(039)	Dominant		____(060)	Unwily
____(019)	Relaxed		____(040)	Unsearching		____(061)	Unsystematic
____(020)	Calculating		____(041)	Anti-social		____(062)	Self-assured
____(021)	Unmoody		____(042)	Perky		____(063)	Dissocial

____(064) Jovial	____(085) Friendly	____(106) Unreliable
____(065) Domineering	____(086) Cunning	____(107) Outgoing
____(066) Neat	____(087) Self-confident	____(108) Sympathetic
____(067) Unabstract	____(088) Unauthoritative	____(109) Boastless
____(068) Tenderhearted	____(089) Uncrafty	____(110) Unnervous
____(069) Unworrying	____(090) Unsympathetic	____(111) Unliterary
____(070) Unimaginative	____(091) Charitable	____(112) Imaginative
____(071) Tidy	____(092) Coldhearted	____(113) Persistent
____(072) Warmthless	____(093) Guilt-prone	____(114) Reliable
____(073) Unslly	____(094) Nervous	____(115) Crafty
____(074) Enthusiastic	____(095) Broad-minded	____(116) Unagitated
____(075) Firm	____(096) Distant	____(117) Stable
____(076) Impractical	____(097) Forceless	____(118) Uninquisitive
____(077) Uncalculating	____(098) Efficient	____(119) Unsociable
____(078) Questioning	____(099) Fretful	____(120) Unartistic
____(079) Accomodating	____(100) Overexcitable	____(121) Self-disciplined
____(080) Uncheery	____(101) Gentlehearted	____(122) Forgetful
____(081) Uncomplex	____(102) Disorganized	____(123) Cruel
____(082) Calm	____(103) Unplanful	____(124) Bashful
____(083) Conventional	____(104) Unanxious	____(125) Leader-like
____(084) Individualistic	____(105) Unself-conscious	____(126) Commanding

RQ

Please read each of the four paragraphs below.

- (1) Circle the paragraph that best describes your personality style. (circle only one paragraph).
- (2) Next, rate each paragraph according to the degree to which you resemble each of these descriptions of personality. Please use the scale below to make your ratings.

1 = it does not describe me at all

2 = it does not describe me very well

3 = it does not describe me well

4 = not sure

5 = it describes me well

6 = it describes me very well

7 = it describes me completely

RQ cont'd

- (A) It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

1 2 3 4 5 6 7

- (B) I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

1 2 3 4 5 6 7

- (C) I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but sometimes I worry that others don't value me as much as I value them.

1 2 3 4 5 6 7

- (D) I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

1 2 3 4 5 6

ASI

Please indicate the extent of your agreement with each of the following items according to response scale shown below. Circle an item between "1" and "7" to indicate the degree of your agreement.

	1	2	3	4	5	6	7
	strongly disagree			neither agree nor disagree			strongly agree
1. I am relatively confident that other people will accept me as I am	1	2	3	4	5	6	7
2. I do not worry about being alone	1	2	3	4	5	6	7
3. I find others are reluctant to get as close as I would like	1	2	3	4	5	6	7
4. I am not sure that I can always depend on others to be there when I need them	1	2	3	4	5	6	7
5. Sometimes people do not want to get close to me because I want so much to be close to them	1	2	3	4	5	6	7
6. I find it difficult to allow myself to depend on others	1	2	3	4	5	6	7
7. I want to merge completely with another person	1	2	3	4	5	6	7
8. I do not worry about having others not accept me	1	2	3	4	5	6	7
9. I am nervous when anyone gets too close	1	2	3	4	5	6	7
10. It is easy for me to get emotionally close to others	1	2	3	4	5	6	7
11. I am uncomfortable being without close relationships but I sometimes worry that others do not value me as much as I value them	1	2	3	4	5	6	7
12. I worry that I will be hurt if I allow myself to become too close to others	1	2	3	4	5	6	7
13. I want emotionally close relationships, but I find it difficult to trust others completely	1	2	3	4	5	6	7

ASI cont'd

	1	2	3	4	5	6	7
	strongly disagree			neither agree nor disagree			strongly agree
14. I am comfortable depending on others	1	2	3	4	5	6	7
15. I often want to get closer to others than they want to get to me	1	2	3	4	5	6	7
16. People are never there when you need them	1	2	3	4	5	6	7
17. I know that others will be there when I need them	1	2	3	4	5	6	7
18. I find it difficult to trust others completely	1	2	3	4	5	6	7
19. I do not often worry about someone getting too close to me	1	2	3	4	5	6	7
20. I do not often worry about letting other people down	1	2	3	4	5	6	7
21. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like	1	2	3	4	5	6	7
22. I do not often worry about being abandoned	1	2	3	4	5	6	7
23. I find it relatively easy to get close to others	1	2	3	4	5	6	7
24. My desire to merge sometimes scares people away	1	2	3	4	5	6	7
25. I am somewhat uncomfortable being close to others	1	2	3	4	5	6	7

CABS

Please read and imagine you are involved in the following scenarios and rate the following event according to how much you blame the event on each of the possibilities below.

1= not at all 3= very little 5= somewhat 7= a great deal 9= totally

1) You are driving a car on a snowy day and have an accident with another driver.

How much do you blame yourself for the kind of person you are? **1 2 3 4 5 6 7 8 9**

How much do you blame yourself for something you did? **1 2 3 4 5 6 7 8 9**

How much do you blame the other person for the kind of person they are? **1 2 3 4 5 6 7 8 9**

How much do you blame the other person for something they have done? **1 2 3 4 5 6 7 8 9**

Given what happened, how much do you blame the circumstances? **1 2 3 4 5 6 7 8 9**

Given what happened, how much do you blame bad luck? **1 2 3 4 5 6 7 8 9**

2) You meet someone new and invite them to your party but they do not show up.

How much do you blame yourself for the kind of person you are? **1 2 3 4 5 6 7 8 9**

How much do you blame yourself for something you did? **1 2 3 4 5 6 7 8 9**

How much do you blame the other person for the kind of person they are? **1 2 3 4 5 6 7 8 9**

How much do you blame the other person for something they have done? **1 2 3 4 5 6 7 8 9**

Given what happened, how much do you blame the circumstances? **1 2 3 4 5 6 7 8 9**

Given what happened, how much do you blame bad luck? **1 2 3 4 5 6 7 8 9**

CABS cont'd**3) *Your boyfriend/girlfriend leaves you and starts a relationship with someone else.***

How much do you blame yourself for the kind of person you are? 1 2 3 4 5 6 7 8 9

How much do you blame yourself for something you did? 1 2 3 4 5 6 7 8 9

How much do you blame the other person for the kind of person they are? 1 2 3 4 5 6 7 8 9

How much do you blame the other person for something they have done? 1 2 3 4 5 6 7 8 9

Given what happened, how much do you blame the circumstances? 1 2 3 4 5 6 7 8 9

Given what happened, how much do you blame bad luck? 1 2 3 4 5 6 7 8 9

4) *Your boss is upset because you and a fellow employee did not complete your group project on time.*

How much do you blame yourself for the kind of person you are? 1 2 3 4 5 6 7 8 9

How much do you blame yourself for something you did? 1 2 3 4 5 6 7 8 9

How much do you blame the other person for the kind of person they are? 1 2 3 4 5 6 7 8 9

How much do you blame the other person for something they have done? 1 2 3 4 5 6 7 8 9

Given what happened, how much do you blame the circumstances? 1 2 3 4 5 6 7 8 9

Given what happened, how much do you blame bad luck? 1 2 3 4 5 6 7 8 9

CYN

This questionnaire consists of numbered statements. Read each statement and decide whether it is ***true as applied to you, or false as applied to you.***

If a statement is **true** or **mostly true**, as applied to you, circle the **(T)** beside the statement. If a statement is **false** or **not usually true**, as applied to you, circle the **(F)** beside the statement. You must answer true or false for every statement.

- | | | |
|--|---|---|
| 1. I have often had to take orders from someone
who did not know as much as I did..... | T | F |
| 2. I think a great many people exaggerate their misfortunes
in order to gain the sympathy and help of others..... | T | F |
| 3. It takes a lot of argument to convince most people of the truth..... | T | F |
| 4. I think most people would lie to get ahead..... | T | F |
| 5. Most people are honest chiefly because
they are afraid of being caught..... | T | F |
| 6. Most people will use somewhat unfair means
to gain profit or an advantage rather than to lose it..... | T | F |
| 7. I often wonder what hidden reason another
person may have for doing something nice for me..... | T | F |

CYN cont'd

- | | | |
|---|----------|----------|
| 8. My way of doing things is apt to be misunderstood by others..... | T | F |
| 9. It is safer to trust nobody..... | T | F |
| 10. Most people make friends because
friends are likely to be useful to them..... | T | F |
| 11. The person who provides temptation by leaving
valuable property unprotected is about as much
to blame for its theft as the one who steals it..... | T | F |
| 12. I think nearly anyone would tell a lie to keep out of trouble..... | T | F |
| 13. Most people inwardly dislike putting
themselves out to help other people..... | T | F |
| 14. I tend to be on my guard with people who are
somewhat more friendly than I had expected..... | T | F |
| 15. I have often met people who were supposed
to be experts who were no better than I..... | T | F |
| 16. People generally demand more respect for their
own rights than they are willing to allow for others..... | T | F |
| 17. I have often found people jealous of my good ideas,
just because they had not thought of them first..... | T | F |

CYN cont'd

- | | | |
|---|----------|----------|
| 18. Most people will use somewhat unfair means to get ahead in life..... | T | F |
| 19. The future is too uncertain for a person to make serious plans..... | T | F |
| 20. People have often misunderstood my intentions
when I was trying to put them right and be helpful..... | T | F |
| 21. I have frequently worked under people who seem to
have things arranged so that they get credit for good work
but are able to pass off mistakes onto those under them..... | T | F |
| 22. A large number of people are guilty of bad sexual conduct..... | T | F |
| 23. Most men are unfaithful to their wives now and then..... | T | F |

BIDR-S

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1-----2-----3-----4-----5-----6-----7

NOT TRUE

SOMEWHAT

VERY TRUE

TRUE

- _____ 1. I sometimes tell lies if I have to.
- _____ 2. I never cover up my mistakes.
- _____ 3. There have been occasions when I have taken advantage of someone
- _____ 4. I never swear.
- _____ 5. I sometimes try to get even rather than forgive and forget.
- _____ 6. I always obey laws, even if I'm unlikely to get caught.
- _____ 7. I have said something bad about a friend behind his or her back.
- _____ 8. When I hear people talking privately, I avoid listening.
- _____ 9. I have received too much change from a salesperson without telling him or her.
- _____ 10. I always declare everything at customs.
- _____ 11. When I was young I sometimes stole things.
- _____ 12. I have never dropped litter on the street.
- _____ 13. I sometimes drive faster than the speed limit.
- _____ 14. I never read sexy books or magazines.
- _____ 15. I have done things that I don't tell other people about.
- _____ 16. I never take things that don't belong to me.
- _____ 17. I have taken sick-leave from work or school even though I wasn't really sick.
- _____ 18. I have never damaged a library book or store merchandise without reporting it.
- _____ 19. I have some pretty awful habits.
- _____ 20. I don't gossip about other people's business.

Appendix B

NEO-PI-R

Instructions: This questionnaire contains 240 statements. Please read each item carefully and circle the one answer that best corresponds to your level of agreement or disagreement.

Circle "SD"	if the statement is definitely false or the strongly disagree.	SD D N A SA
Circle "D"	if the statement is mostly false of you disagree.	SD D N A SA
Circle "N"	if the statement is about equally true or false, if you cannot decide, or if you are neutral on the statement.	SD D N A SA
Circle "A"	if the statement is mostly true of if you agree.	SD D N A SA
Circle "SA"	if the statement is definitely true or if you strongly agree.	SD D N A SA

1.	I am not a worrier	SD D N A SA
2.	I really like most people I meet	SD D N A SA
3.	I have a very active imagination	SD D N A SA
4.	I tend to be cynical and skeptical of others' intentions	SD D N A SA
5.	I'm known for my prudence and common sense	SD D N A SA
6.	I often get angry at the way people treat me	SD D N A SA
7.	I shy away from crowds of people	SD D N A SA
8.	Aesthetic and artistic concerns aren't important to me	SD D N A SA
9.	I'm not crafty or sly	SD D N A SA
10.	I would rather keep my options open than plan everything in advance	SD D N A SA
11.	I rarely feel lonely or blue	SD D N A SA
12.	I am dominant, forceful and assertive	SD D N A SA
13.	Without strong emotions, life would be uninteresting to me	SD D N A SA
14.	Some people think I'm selfish and egotistical	SD D N A SA
15.	I try to perform all the tasks assigned to be conscientiously	SD D N A SA
16.	In dealing with other people, I always dread making a social blunder	SD D N A SA
17.	I have a leisurely style in work and play	SD D N A SA
18.	I'm pretty set in my ways	SD D N A SA
19.	I would rather cooperate with others than compete with them	SD D N A SA
20.	I am easy-going and lackadaisical	SD D N A SA
21.	I rarely overindulge in anything	SD D N A SA
22.	I often crave excitement	SD D N A SA
23.	I often enjoy playing with theories or abstract ideas	SD D N A SA
24.	I don't mind bragging about my talents and accomplishments	SD D N A SA
25.	I'm pretty good about pacing myself so as to get things done on time	SD D N A SA
26.	I often feel helpless and want someone else to solve my problems	SD D N A SA
27.	I have never literally jumped for joy	SD D N A SA
28.	I believe letting students hear controversial speakers can only confuse and mislead them.	SD D N A SA
29.	Political leaders need to be more aware of the human side of their policies	SD D N A SA
30.	Over the years I've done some pretty stupid things	SD D N A SA
31.	I am easily frightened	SD D N A SA
32.	I don't get pleasure from chatting with people	SD D N A SA
33.	I try to keep all my thoughts directed along realistic lines and avoid flights of fancy	SD D N A SA

NEO-PI-R continued

34.	I believe that most people are basically well-intentioned	SD	D	N	A	SA
35.	I don't take civic duties like voting seriously	SD	D	N	A	SA
36.	I am an even-tempered person	SD	D	N	A	SA
37.	I like to have a lot of people around me	SD	D	N	A	SA
38.	I am sometimes completely absorbed in music I am listening to	SD	D	N	A	SA
39.	If necessary, I am willing to manipulate people to get what I want	SD	D	N	A	SA
40.	I keep my belongings neat and clean	SD	D	N	A	SA
41.	Sometimes I feel completely worthless	SD	D	N	A	SA
42.	Sometimes I fail to assert myself as I should	SD	D	N	A	SA
43.	I rarely experience strong emotions	SD	D	N	A	SA
44.	I try to be courteous to everyone I meet	SD	D	N	A	SA
45.	Sometimes I'm not dependable or reliable as I should be	SD	D	N	A	SA
46.	I seldom feel so self-conscious when I'm around people	SD	D	N	A	SA
47.	When I do things, I do them vigorously	SD	D	N	A	SA
48.	I think it's interesting to learn and develop new hobbies	SD	D	N	A	SA
49.	I can be sarcastic and cutting when I need to be	SD	D	N	A	SA
50.	I have a clear set of goals and work towards them in an orderly fashion	SD	D	N	A	SA
51.	I have trouble resisting my cravings	SD	D	N	A	SA
52.	I wouldn't enjoy vacation in Las Vegas	SD	D	N	A	SA
53.	I find it philosophical arguments boring	SD	D	N	A	SA
54.	I'd rather not talk about myself and my achievements	SD	D	N	A	SA
55.	I waste a lot of time before settling down to work	SD	D	N	A	SA
56.	I have sometimes experienced intense joy or ecstasy	SD	D	N	A	SA
57.	I feel capable of coping with most of my problems	SD	D	N	A	SA
58.	I believe that law and social policies should change to reflect the needs of a changing world.	SD	D	N	A	SA
59.	I'm hard-headed and tough-minded in my attitudes	SD	D	N	A	SA
60.	I think things through before coming to decisions	SD	D	N	A	SA
61.	I rarely feel fearful or anxious	SD	D	N	A	SA
62.	I'm known as a warm and friendly person	SD	D	N	A	SA
63.	I have an active fantasy life	SD	D	N	A	SA
64.	I believe that most people will take advantage of you if you let them	SD	D	N	A	SA
65.	I keep myself informed and usually make intelligent decisions	SD	D	N	A	SA
66.	I am known to be hot-blooded and tempered	SD	D	N	A	SA
67.	I usually prefer to do things alone	SD	D	N	A	SA
68.	Watching ballet or modern dance bores me	SD	D	N	A	SA
69.	I couldn't deceive anyone even if I wanted to.	SD	D	N	A	SA
70.	I am not a very methodical person	SD	D	N	A	SA
71.	I am seldom sad or depressed.	SD	D	N	A	SA
72.	I have often been a leader of groups I have belonged to.	SD	D	N	A	SA
73.	How I feel about things is important to me	SD	D	N	A	SA
74.	Some people think of me as cold and calculating	SD	D	N	A	SA
75.	I pay my debts promptly and in full.	SD	D	N	A	SA
76.	At times I have been so ashamed I just wanted to hide	SD	D	N	A	SA
77.	My work is likely to be slow but steady.	SD	D	N	A	SA
78.	Once I find the right way to do something, I stick to it.	SD	D	N	A	SA
79.	I hesitate to express my anger even when it's justified	SD	D	N	A	SA
80.	When I start a self-improvement program, I usually let it slide after a few days.	SD	D	N	A	SA

NEO-PI-R continued

81.	I have little difficulty resisting temptation	SD	D	N	A	SA
82.	I have sometimes done things just for “kicks” or “thrills”	SD	D	N	A	SA
83.	I enjoy solving problems or puzzles	SD	D	N	A	SA
84.	I’m better than most people, and I know it	SD	D	N	A	SA
85.	I am a productive person who always gets the job done.	SD	D	N	A	SA
86.	When I’m under a great deal of stress, sometimes I feel like I’m going to pieces.	SD	D	N	A	SA
87.	I am not a cheerful optimist.	SD	D	N	A	SA
88.	I believe we should look to our religious authorities for decisions on moral issues	SD	D	N	A	SA
89.	We can never do too much for the poor and elderly	SD	D	N	A	SA
90.	Occasionally I act first and think later.	SD	D	N	A	SA
91.	I often feel tense and jittery.	SD	D	N	A	SA
92.	Many people think of me as somewhat cold and distant.	SD	D	N	A	SA
93.	I don’t like to waste my time daydreaming	SD	D	N	A	SA
94.	I think most of the people I deal with are honest and trustworthy	SD	D	N	A	SA
95.	I often come into situations without being fully prepared	SD	D	N	A	SA
96.	I am not considered a touchy or temperamental person.	SD	D	N	A	SA
97.	I really feel the need for other people if I am by myself for long.	SD	D	N	A	SA
98.	I am intrigued by the patterns I find in art and nature	SD	D	N	A	SA
99.	Being perfectly honest is a bad way to do business	SD	D	N	A	SA
100.	I like to keep everything in its place so I know just where it is	SD	D	N	A	SA
101.	I have sometimes experienced a deep sense of guilt or sinfulness	SD	D	N	A	SA
102.	In meetings, I usually let others do the talking	SD	D	N	A	SA
103.	I seldom pay much attention to my feelings of the moment	SD	D	N	A	SA
104.	I generally try to be thoughtful and considerate	SD	D	N	A	SA
105.	Sometimes I cheat when I play solitaire	SD	D	N	A	SA
106.	It doesn’t embarrass me too much if people ridicule and tease me	SD	D	N	A	SA
107.	I often feel as if I’m bursting with energy	SD	D	N	A	SA
108.	I often try new and foreign foods	SD	D	N	A	SA
109.	If I don’t like people, I let them know it	SD	D	N	A	SA
110.	I work hard to accomplish my goals	SD	D	N	A	SA
111.	When I am having my favorite foods, I tend to eat too much	SD	D	N	A	SA
112.	I tend to avoid movies that are shocking or scary	SD	D	N	A	SA
113.	I sometimes lose interest when people talk about very abstract, theoretical matters	SD	D	N	A	SA
114.	I try to be humble	SD	D	N	A	SA
115.	I have trouble making myself do what I should	SD	D	N	A	SA
116.	I keep a cool head in emergencies	SD	D	N	A	SA
117.	Sometimes I bubble with happiness	SD	D	N	A	SA
118.	I believe that the different ideas of right and wrong that people in other societies have, may be valid for them	SD	D	N	A	SA
119.	I have no sympathy for panhandlers	SD	D	N	A	SA
120.	I have always consider the consequences before I take action	SD	D	N	A	SA
121.	I’m seldom apprehensive about the future	SD	D	N	A	SA
122.	I really enjoy talking to people	SD	D	N	A	SA
123.	I enjoy concentrating on a fantasy or daydream and exploring all its possibilities, letting it grow and develop	SD	D	N	A	SA
124.	I’m suspicious when someone does something nice for me	SD	D	N	A	SA

NEO-PI-R continued

125.	I pride myself on my sound judgement	SD	D	N	A	SA
126.	I often get disgusted with people I have to deal with	SD	D	N	A	SA
127.	I prefer jobs that let me work alone without being bothered by other people	SD	D	N	A	SA
128.	Poetry has little or no effect on me	SD	D	N	A	SA
129.	I would hate to be thought of as a hypocrite	SD	D	N	A	SA
130.	I never seem to be able to get organized	SD	D	N	A	SA
131.	I tend to blame myself when anything goes wrong	SD	D	N	A	SA
132.	Other people often look to me to make decisions	SD	D	N	A	SA
133.	I experience a wide range of emotions	SD	D	N	A	SA
134.	I'm not known for my generosity	SD	D	N	A	SA
135.	When I make a commitment, I can always be counted on to follow through	SD	D	N	A	SA
136.	I often feel inferior to others	SD	D	N	A	SA
137.	I'm not as quick and lively as other people	SD	D	N	A	SA
138.	I prefer to spend my time in familiar surroundings	SD	D	N	A	SA
139.	When I've been insulted, I just try to forgive and forget	SD	D	N	A	SA
140.	I don't feel like I'm driven to get ahead	SD	D	N	A	SA
141.	I seldom give into my impulses	SD	D	N	A	SA
142.	I like to be where the action is	SD	D	N	A	SA
143.	I enjoy working on "mind-twister"-type puzzles	SD	D	N	A	SA
144.	I have a very high opinion of myself	SD	D	N	A	SA
145.	Once I start a project, I almost always finish it	SD	D	N	A	SA
146.	It's often hard for me to make up my mind	SD	D	N	A	SA
147.	I don't consider myself especially "light-hearted"	SD	D	N	A	SA
148.	I believe that loyalty to one's ideals and principles is more important than "open-mindedness"	SD	D	N	A	SA
149.	Human need should always take priority over economic considerations	SD	D	N	A	SA
150.	I often do things on the spur of the moment	SD	D	N	A	SA
151.	I often worry about things that might go wrong	SD	D	N	A	SA
152.	I find it easy to smile and be outgoing with strangers	SD	D	N	A	SA
153.	If I feel my mind starting to drift off into daydreams, I usually get busy and start concentrating on some work or activity instead	SD	D	N	A	SA
154.	My first reaction is to trust people	SD	D	N	A	SA
155.	I don't seem to be completely successful at anything	SD	D	N	A	SA
156.	It takes a lot to get me mad	SD	D	N	A	SA
157.	I'd rather vacation at a popular beach than an isolated cabin in the woods	SD	D	N	A	SA
158.	Certain kinds of music have an endless fascination for me	SD	D	N	A	SA
159.	Sometimes I trick people into doing what I want	SD	D	N	A	SA
160.	I tend to be somewhat fastidious or exacting	SD	D	N	A	SA
161.	I have a low opinion of myself	SD	D	N	A	SA
162.	I would rather go my own way than be a leader of others	SD	D	N	A	SA
163.	I seldom notice the moods or feelings that different environments produce	SD	D	N	A	SA
164.	Most people I know like me	SD	D	N	A	SA
165.	I adhere strictly to my ethical principles	SD	D	N	A	SA
166.	I feel comfortable in the presence of my bosses or other authorities	SD	D	N	A	SA
167.	I usually seem to be in a hurry	SD	D	N	A	SA
168.	Sometimes I make changes around the house just to try something different	SD	D	N	A	SA

NEO-PI-R continued

169.	If someone starts a fight, I'm ready to fight back	SD	D	N	A	SA
170.	I strive to achieve all I can	SD	D	N	A	SA
171.	I sometimes eat myself sick	SD	D	N	A	SA
172.	I love the excitement of roller coasters	SD	D	N	A	SA
173.	I have little interest in speculating on the nature of the universe or the human condition	SD	D	N	A	SA
174.	I feel that I am no better than others, no matter what their condition	SD	D	N	A	SA
175.	When a project gets too difficult, I'm inclined to start a new one	SD	D	N	A	SA
176.	I can handle myself pretty well in a crisis	SD	D	N	A	SA
177.	I am cheerful, high-spirited person	SD	D	N	A	SA
178.	I consider myself broad-minded and tolerant of other people's lifestyles	SD	D	N	A	SA
179.	I believe all human beings are worthy of respect	SD	D	N	A	SA
180.	I rarely make hasty decisions	SD	D	N	A	SA
181.	I have fewer fears than most people	SD	D	N	A	SA
182.	I have strong emotional attachments to my friends	SD	D	N	A	SA
183.	As a child I rarely enjoyed games of make believe	SD	D	N	A	SA
184.	I tend to assume the best about people	SD	D	N	A	SA
185.	I'm a very competent person	SD	D	N	A	SA
186.	At times I have felt bitter and resentful	SD	D	N	A	SA
187.	Social gatherings are usually boring to me	SD	D	N	A	SA
188.	Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement	SD	D	N	A	SA
189.	At times I bully or flatter people into doing what I want them to	SD	D	N	A	SA
190.	I'm not compulsive about cleaning	SD	D	N	A	SA
191.	Sometimes things look pretty bleak and hopeless to me	SD	D	N	A	SA
192.	In conversations, I tend to do most of the talking	SD	D	N	A	SA
193.	I find it easy to empathize-to feel myself what others are feeling	SD	D	N	A	SA
194.	I think of myself as a charitable person	SD	D	N	A	SA
195.	I try to do jobs carefully, so they won't have to be done again	SD	D	N	A	SA
196.	If I have said or done the wrong thing to someone, I can hardly bear to face them again	SD	D	N	A	SA
197.	My life is fast-paced	SD	D	N	A	SA
198.	On a vacation, I prefer going back to a tried and true spot	SD	D	N	A	SA
199.	I'm hard-headed and stubborn	SD	D	N	A	SA
200.	I strive for excellence in everything I do	SD	D	N	A	SA
201.	Sometimes I do things on impulse that I later regret	SD	D	N	A	SA
202.	I'm attracted to bright colors and flashy styles	SD	D	N	A	SA
203.	I have a lot of intellectual curiosity	SD	D	N	A	SA
204.	I would rather praise others than be praised myself	SD	D	N	A	SA
205.	There are so many little jobs that need to be done that I sometimes just ignore them all	SD	D	N	A	SA
206.	When everything seems to be going wrong, I can still make good decisions	SD	D	N	A	SA
207.	I rarely use words like "fantastic!" or "sensational!" to describe my experiences	SD	D	N	A	SA
208.	I think that if people don't know what they believe in by the time they're 25, there's something wrong with them	SD	D	N	A	SA
209.	I have sympathy for others less fortunate than me	SD	D	N	A	SA
210.	I plan ahead carefully when I go on a trip	SD	D	N	A	SA

NEO-PI-R continued

211.	Frightening thoughts sometimes come into my head	SD	D	N	A	SA
212.	I take a personal interest in the people I work with	SD	D	N	A	SA
213.	I would have difficulty just letting my mind wander without control or guidance	SD	D	N	A	SA
214.	I have a good deal of faith in human nature	SD	D	N	A	SA
215.	I am efficient and effective at my work	SD	D	N	A	SA
216.	Even minor annoyances can be frustrating to me	SD	D	N	A	SA
217.	I enjoy parties with lots of people	SD	D	N	A	SA
218.	I enjoy reading poetry that emphasizes feelings and images more than story lines	SD	D	N	A	SA
219.	I pride myself on my shrewdness in handling people	SD	D	N	A	SA
220.	I spend a lot of time looking for things I've misplaced	SD	D	N	A	SA
221.	Too often, when things go wrong, I get discouraged and feel like giving up	SD	D	N	A	SA
222.	I don't find it easy to take charge of a situation	SD	D	N	A	SA
223.	Odd things-like certain scents or the names of distant places-can evoke strong moods in me	SD	D	N	A	SA
224.	I go out of my way to help others if I can	SD	D	N	A	SA
225.	I'd really have to be sick before I'd miss a day of work	SD	D	N	A	SA
226.	When people I know do foolish things, I get embarrassed for them	SD	D	N	A	SA
227.	I am a very active person	SD	D	N	A	SA
228.	I follow the same route when I go someplace	SD	D	N	A	SA
229.	I often get into arguments with my family and co-workers	SD	D	N	A	SA
230.	I'm something of a "workaholic"	SD	D	N	A	SA
231.	I am always able to keep my feelings under control	SD	D	N	A	SA
232.	I like being a part of the crowd at sporting events	SD	D	N	A	SA
233.	I have a wide range of intellectual interests	SD	D	N	A	SA
234.	I'm a superior person	SD	D	N	A	SA
235.	I have a lot of self-discipline	SD	D	N	A	SA
236.	I'm pretty stable emotionally	SD	D	N	A	SA
237.	I laugh easily	SD	D	N	A	SA
238.	I believe that the "new morality" of permissiveness is no morality at all	SD	D	N	A	SA
239.	I would rather be known as "merciful" than as "just"	SD	D	N	A	SA
240.	I think twice before I answer a question	SD	D	N	A	SA

Appendix C RMAS

Age _____

sex (m or f) _____

Listed below are a number of statements reflecting certain feelings that you may have about yourself and your life. Please read each item and decide where you *agree* or *disagree*. If you *strongly agree* with a statement, circle “6”; if you *strongly disagree* with a statement, circle “1”; if you feel somewhere in between these two points, circle one of the numbers between “1” and “6” depending upon the extent to which you disagree or agree.

	Strongly Disagree				Strongly Agree	
1. I am not afraid to voice my opinion, even when it is in opposition of most people.	1	2	3	4	5	6
2. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
3. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
4. Most people see me as loving and affectionate.	1	2	3	4	5	6
5. I live one day at a time and don't really think about the future.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6
8. The demands of everyday life often get me down.	1	2	3	4	5	6
9. I don't want to try new ways of doing things - my life is fine the way it is.	1	2	3	4	5	6
10. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
11. I tend to focus on the present, because the future nearly always brings me problems.	1	2	3	4	5	6
12. In general, I feel confident and positive about myself.	1	2	3	4	5	6
13. I tend to worry about what other people think of me.	1	2	3	4	5	6
14. I do not fit in very well with the people and community around me.	1	2	3	4	5	6

15. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
16. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
17. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
18. I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
19. Being happy with myself is more important than having others approve of me.	1	2	3	4	5	6
20. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
21. When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6
22. I enjoy personally and mutual conversations with family members or friends.	1	2	3	4	5	6
23. I don't; have a good sense of what it is that I'm trying to accomplish with my life.	1	2	3	4	5	6
24. I like most aspects of my personality.	1	2	3	4	5	6
25. I tend to be influence by people with strong opinions.	1	2	3	4	5	6
26. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
27. I have the sense that I have developed a lot over time.	1	2	3	4	5	6
28. I don't; have many people who want to listen when I need to talk.	1	2	3	4	5	6
29. I used to set goals for myself, but that now seems like a waste of time.	1	2	3	4	5	6
30. I made some mistakes in the past, but I feel that, all in all, everything has worked out for the best.	1	2	3	4	5	6
31. I have confidence in my own opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6

32. I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6
33. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
34. It seems to me that most other people have more friends than I do.	1	2	3	4	5	6
35. I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
36. In many ways, I feel disappointed about achievements in my life.	1	2	3	4	5	6
37. It's difficult for me to voice my own opinions on controversial matters.	1	2	3	4	5	6
38. I am good at juggling my time so that I can fit everything in that needs to be done.	1	2	3	4	5	6
39. For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6
40. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
41. I am an active person in carrying out the plans I set for myself.	1	2	3	4	5	6
42. My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
43. I often change my mind about decisions if my friends or family disagree.	1	2	3	4	5	6
44. I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
45. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
46. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
47. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
48. The past had its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6

- | | | | | | | |
|---|---|---|---|---|---|---|
| 49. I judge myself by what I think is important, not by what others think is important. | 1 | 2 | 3 | 4 | 5 | 6 |
| 50. I have been able to build a home and a lifestyle for myself that is much to my liking. | 1 | 2 | 3 | 4 | 5 | 6 |
| 51. There is truth to the saying “you can’t teach an old dog new tricks”. | 1 | 2 | 3 | 4 | 5 | 6 |
| 52. I know that I can trust my friends, and they know they know they can trust me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 53. I sometimes feel as if I’ve done all there is to do in life. | 1 | 2 | 3 | 4 | 5 | 6 |
| 54. When I compare myself with friends and acquaintances, it makes me feel good about who I am. | 1 | 2 | 3 | 4 | 5 | 6 |

CES-D

Below is a list of the ways you might have felt or behaved.

Please tell me how often you have felt this way during the past week.

Rarely or none of the time (less than 1 day)

A little or some of the time (1-2 days)

Occasionally or a moderate amount of the time (3-4 days)

Most or all of the time (5-7 days)

During the Past Week	Rarely	A little	Moderate	Most
1. I was bothered by things that usually don't bother me.....	0	1	2	3
2. I did not feel like eating; my appetite was poor.....	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends.....	0	1	2	3
4. I felt that I was just as good as other people.....	0	1	2	3
5. I had trouble keeping my mind on what I was doing.....	0	1	2	3
6. I felt depressed.....	0	1	2	3
7. I felt that everything I did was an effort.....	0	1	2	3
8. I felt hopeful about the future.....	0	1	2	3
9. I thought my life had been a failure.....	0	1	2	3
10. I felt fearful.....	0	1	2	3
11. My sleep was restless.....	0	1	2	3
12. I was happy.....	0	1	2	3
13. I talked less than usual.....	0	1	2	3
14. I felt lonely.....	0	1	2	3
15. People were unfriendly.....	0	1	2	3
16. I enjoyed life.....	0	1	2	3
17. I had crying spells.....	0	1	2	3
18. I felt sad.....	0	1	2	3
19. I felt that people disliked me.....	0	1	2	3
20. I could not get going.....	0	1	2	3

INSI

We would like you to tell us some of the ways that people have stressed you or made life more difficult for you **over the past four weeks**. Below you will find a list of things that other people might have done to you. Please read each item carefully and indicate how often these things have happened to you in the past four weeks by circling your answer based on the scale below.

0=not at all

1=once or twice

2=about once a week

3=several times a week

4=many times a week

5=about every day

	not at all					daily
1. criticized you	0	1	2	3	4	5
2. ignored you	0	1	2	3	4	5
3. left you out of a social activity	0	1	2	3	4	5
4. told negative things about you to another person	0	1	2	3	4	5
5. yelled at you	0	1	2	3	4	
6. took something of yours without asking	0	1	2	3	4	5
7. acted bossy	0	1	2	3	4	5
8. lied to you	0	1	2	3	4	5
9. told confidential things about you to another person	0	1	2	3	4	5
10. didn't pay back borrowed money	0	1	2	3	4	5
11. friends spent less time with you	0	1	2	3	4	5
12. didn't call or come over when they said they would	0	1	2	3	4	5
13. didn't return your phone calls	0	1	2	3	4	5
14. burdened you by talking about their problems	0	1	2	3	4	5
15. didn't clean up after themselves	0	1	2	3	4	5
16. asked you to do something unreasonable	0	1	2	3	4	5
17. made a scene	0	1	2	3	4	5
18. interfered in your business	0	1	2	3	4	5
19. gave you unwanted or bad advice	0	1	2	3	4	5
20. talked down to you	0	1	2	3	4	5
21. went back on their word	0	1	2	3	4	5

22. overemphasized something they did for you	0	1	2	3	4	5
23. damaged your property	0	1	2	3	4	5
24. put you down for what you believe	0	1	2	3	4	5
25. hung around too much	0	1	2	3	4	5
26. wanted you to take care of their responsibilities	0	1	2	3	4	5
27. didn't listen to you	0	1	2	3	4	5
28. burdened you by complaining	0	1	2	3	4	5
29. flirted with your mate	0	1	2	3	4	5
30. gave you an illness	0	1	2	3	4	5
31. friend believed a rumour about you	0	1	2	3	4	5
32. friend sided with another in a dispute	0	1	2	3	4	5
33. didn't return favours	0	1	2	3	4	5
34. mimicked or imitated you	0	1	2	3	4	5
35. took advantage of your generosity	0	1	2	3	4	5
36. refused to discuss an important topic	0	1	2	3	4	5
37. friend's substance abuse strained your relationship	0	1	2	3	4	5
38. didn't take your problems seriously	0	1	2	3	4	5
39. didn't take positive things that were important to you seriously	0	1	2	3	4	5
40. made inappropriate advances or comments	0	1	2	3	4	5

IPSM

Instructions to Participants

A number of statements are listed below which relate to how you might feel about yourself and other people in your life. Please indicate with a tick in the appropriate place how each one applies to you. There are no right or wrong answers.

	Very Unlike	Mod. Like	Mod. Like	Mod. Unlike
1. I feel insecure when I say goodbye to some people	[]	[]	[]	[]
2. I worry about the effect I have on other people	[]	[]	[]	[]
3. I avoid saying what I really think for fear of being rejected	[]	[]	[]	[]
4. I feel uneasy meeting new people	[]	[]	[]	[]
5. If others knew the real me, they would not like me	[]	[]	[]	[]
6. I feel secure when I'm in a close relationship	[]	[]	[]	[]
7. I don't get angry with people for fear that I may hurt them	[]	[]	[]	[]
8. After a fight with a friend, I feel uncomfortable until I have made peace	[]	[]	[]	[]
9. I am always aware of how other people feel	[]	[]	[]	[]
10. I worry about being criticized for things I have said and done	[]	[]	[]	[]
11. I always notice if someone doesn't respond to me	[]	[]	[]	[]
12. I worry about losing someone close to me	[]	[]	[]	[]
13. I feel that people generally like me	[]	[]	[]	[]
14. I will do something I don't want to do rather than offend or upset someone	[]	[]	[]	[]
15. I can only believe that something I have done is good when someone tells me it is	[]	[]	[]	[]
16. I will go out of my way to please someone I am close to	[]	[]	[]	[]
17. I feel anxious when I say goodbye to people	[]	[]	[]	[]
18. I feel happy when someone compliments me	[]	[]	[]	[]
19. I fear that my feelings will overwhelm people	[]	[]	[]	[]
20. I can make other people feel happy	[]	[]	[]	[]
21. I find it hard to get angry at people	[]	[]	[]	[]
22. I worry about criticizing other people	[]	[]	[]	[]
23. If someone is critical of something I do, I feel bad	[]	[]	[]	[]
24. If other people knew what I am really like, they would think less of me	[]	[]	[]	[]
25. I always expect criticism	[]	[]	[]	[]
26. I can never really be sure if someone is pleased with me	[]	[]	[]	[]
27. I don't like people to really know me	[]	[]	[]	[]
28. If someone upsets me, I am not able to put it easily out of my mind	[]	[]	[]	[]
29. I feel others do not understand me	[]	[]	[]	[]
30. I worry about what others will think of me	[]	[]	[]	[]
31. I don't feel happy unless people I know admire me	[]	[]	[]	[]
32. I am never rude to anyone	[]	[]	[]	[]
33. I worry about hurting the feelings of other people	[]	[]	[]	[]
34. I feel hurt when someone is angry with me	[]	[]	[]	[]
35. My value as a person depends enormously on what others think of me	[]	[]	[]	[]
36. I care about what other people feel about me	[]	[]	[]	[]

Appendix D

DYADIC ADJUSTMENT SCALE (DAS)

Most couples have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list:

0 Always	1 almost always	2 frequently	3 occasionally	4 almost always	5 always
1. Handling family finances			0 1 2 3 4 5		
2. Matters of recreation			0 1 2 3 4 5		
3. Religious matters			0 1 2 3 4 5		
4. Demonstrations of affection			0 1 2 3 4 5		
5. Friends			0 1 2 3 4 5		
6. Sex relations			0 1 2 3 4 5		
7. Conventionality (correct or proper behavior)			0 1 2 3 4 5		
8. Philosophy of life			0 1 2 3 4 5		
9. Ways of dealing with parents or in-laws			0 1 2 3 4 5		
10. Aims, goals, and things believed important			0 1 2 3 4 5		
11. Amount of time spent together			0 1 2 3 4 5		
12. Making major decisions			0 1 2 3 4 5		
13. Household tasks			0 1 2 3 4 5		
14. Leisure time interests and activities			0 1 2 3 4 5		
15. Career decisions			0 1 2 3 4 5		

0 All the time	1 most of the time	2 more often than not	3 occasionally	4 rarely	5 never
16. How often do you discuss or have you considered divorce, separation or terminating your relationship?			0 1 2 3 4 5		
17. How often do you or your mate leave the house after a fight?			0 1 2 3 4 5		
18. In general, how often do you think that things between you and your partner are going well?			0 1 2 3 4 5		
19. Do you confide in your mate?			0 1 2 3 4 5		
20. Do you ever regret that you married?			0 1 2 3 4 5		
21. How often do you and your partner quarrel?			0 1 2 3 4 5		
22. How often do you and your mate "get on each other's nerves?"			0 1 2 3 4 5		

DYADIC ADJUSTMENT SCALE (DAS) continued

23. Do you kiss your mate? **0** **1** **2** **3** **4**
 never rarely occasionally almost daily every day

24. Do you and your mate engage in outside interests together? **0** **1** **2** **3** **4**
 none of them very few of them some of them most of them all of them

How often would you say the following events occur between you and your partner?:

0 **1** **2** **3** **4** **5**
 never less than once a month once or twice a month once or twice a week once a day more often

25. Have a stimulating exchange of ideas	0	1	2	3	4	5
26. Laugh together	0	1	2	3	4	5
27. Calmly discuss something	0	1	2	3	4	5
28. Work together on a project	0	1	2	3	4	5

Below are some things about which couples sometimes agree and sometime disagree. Indicate if either item below caused differences of opinions or were problems in your relationship **during the past few weeks**. (Check yes or no)

29. Being too tired for sex.	_____	Yes	_____	No
30. Not showing love.	_____	Yes	_____	No

31. The circles on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please fill in the circle which best describes the degree of happiness, all things considered, of your relationship.

O	O	O	O	O	O	O
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

DYADIC ADJUSTMENT SCALE (DAS) continued

33. Which of the following statements best describes how you feel about the future of your relationship? (check only one)

- _____ I want desperately for my relationship to succeed, and *would go to almost any length* to see that it does.
- _____ I want very much for my relationship to succeed, and *will do all I can* to see that it does.
- _____ I want very much for my relationship to succeed, and *will do my fair share* to see that it does.
- _____ It would be nice if my relationship succeeded, but *I can't do much more than I am doing now* to help it succeed.
- _____ It would be nice if it succeeded, but I *refuse to do any more than I am doing now* to keep the

Relationship Attribution Measure (RAM)

This questionnaire describes several things that your spouse might do. Imagine your spouse performing each behavior and then read the statements that follow it. Please circle the number that indicates how much you agree or disagree with each statement, using the rating scale below:

1	2	3	4	5	6
Disagree Strongly	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Agree Strongly

YOUR SPOUSE CRITICIZES SOMETHING YOU SAY

- | | | | | | | | |
|----|--|---|---|---|---|---|---|
| 1. | My spouse's behavior was due to something about him/her (e.g., the type of person he/she is, his/her mood) | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | My spouse's behavior was due to something about me (e.g., the type of person I am, the mood I was in) | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | The reason my spouse criticized me is not likely to change | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | The reason my spouse criticized me is something that affects other areas of our marriage | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | My spouse criticized me on purpose rather than unintentionally | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | My spouse's behavior was motivated by selfish rather than unselfish concerns | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | My spouse deserves to be blamed for criticizing me | 1 | 2 | 3 | 4 | 5 | 6 |

Relationship Attribution Measure (RAM) continued

YOUR SPOUSE BEGINS TO SPEND LESS TIME WITH YOU

- | | | | | | | | |
|----|--|---|---|---|---|---|---|
| 1. | My spouse's behavior was due to something about him/her (e.g., the type of person he/she is, his/her mood) | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | My spouse's behavior was due to something about me (e.g., the type of person I am, the mood I was in) | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | The reason my spouse is beginning to spend less time with me is not likely to change | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | The reason my spouse is beginning to spend less time with me is something that affects other areas of our marriage | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | My spouse is beginning to spend less time with me on purpose rather than unintentionally | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | My spouse's behavior was motivated by selfish rather than unselfish concerns | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | My spouse deserves to be blamed for beginning to spend less time with me | 1 | 2 | 3 | 4 | 5 | 6 |

YOUR SPOUSE DOES NOT PAY ATTENTION TO WHAT YOU ARE SAYING

- | | | | | | | | |
|----|--|---|---|---|---|---|---|
| 1. | My spouse's behavior was due to something about him/her (e.g., the type of person he/she is, his/her mood) | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | My spouse's behavior was due to something about me (e.g., the type of person I am, the mood I was in) | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | The reason my spouse did not pay attention to me is not likely to change | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | The reason my spouse did not pay attention to me is something that affects other areas of our marriage | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | My spouse did not pay attention to me on purpose rather than unintentionally | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | My spouse's behavior was motivated by selfish rather than unselfish concerns | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | My spouse deserves to be blamed for not paying attention to me | 1 | 2 | 3 | 4 | 5 | 6 |

Relationship Attribution Measure (RAM) continued

YOUR SPOUSE IS COOL AND DISTANT

- | | | | | | | | |
|----|---|---|---|---|---|---|---|
| 1. | My spouse's behavior was due to something about him/her
(e.g., the type of person he/she is, his/her mood) | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | My spouse's behavior was due to something about me
(e.g., the type of person I am, the mood I was in) | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | The reason my spouse was cool and distant is not
likely to change | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | The reason my spouse was cool and distant is
something that affects other areas of our marriage | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | My spouse was cool and distant on purpose
rather than unintentionally | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | My spouse's behavior was motivated by selfish rather
than unselfish concerns | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | My spouse deserves to be blamed for being cool and
distant | 1 | 2 | 3 | 4 | 5 | 6 |

Edinburgh Postnatal Depression Scale (EPDS)

We would like to know how you are feeling. You will be presented with 10 groups of items. Circle the **ONE** answer within each group that comes closest to how you have felt **IN THE PAST SEVEN DAYS**, not just how you feel today.

1. I have been able to laugh and see the funny side of things
 - a. As much as I always could
 - b. Not quite so much now
 - c. Definitely not so much now
 - d. Not at all

2. I have looked forward with enjoyment to things
 - a. As much as I ever did
 - b. Rather less than I used to
 - c. Definitely less than I used to
 - d. Hardly at all

3. I have blamed myself unnecessarily when things went wrong
 - a. Yes, most of the time
 - b. Yes, some of the time
 - c. Not very often
 - d. No, never

4. I have been anxious or worried for no good reason
 - a. No, not at all
 - b. Hardly ever
 - c. Yes, sometimes
 - d. Yes, very often

5. I have felt scared or panicky for no very good reason
 - a. Yes, quite a lot
 - b. Yes, sometimes
 - c. No, not much
 - d. No, not at all

6. Things have been getting on top of me
 - a. Yes, most of the time I haven't been able to cope at all
 - b. Yes, sometimes I haven't been coping as well as usual
 - c. No, most of the time I have coped quite well
 - d. No, I have been coping as well as ever

Edinburgh Postnatal Depression Scale (EPDS)

7. I have been so unhappy that I have had difficulty sleeping
 - a. Yes, most of the time
 - b. Yes, sometimes
 - c. Not very often
 - d. No, not at all
8. I have felt sad or miserable
 - a. Yes, most of the time
 - b. Yes, quite often
 - c. Not very often
 - d. No, not at all
9. I have been so unhappy that I have been crying
 - a. Yes, most of the time
 - b. Yes, quite often
 - c. Only occasionally
 - d. No, never
10. The thought of harming myself has occurred to me
 - a. Yes, quite often
 - b. Sometimes
 - c. Hardly ever
 - d. Never