WHAT HAS MORE IMPACT ON RELATIONSHIP CONFLICT: CHILDHOOD MALTREATMENT, PSYCHOPATHY OR EMOTIONAL INTELLIGENCE?

by

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ABSTRACT

This study is the first to investigate the possible associations between four predictor variables: childhood maltreatment experiences, psychopathy, emotional intelligence (trait), emotional intelligence (ability), and the outcome variable relationship conflict in a communitybased sample. In addition to exploring the associations between the predictor variables and the outcome variable, this study explored the associations between the predictor variables and proposed a model predicting relationship conflict on the basis of the predictor variables. Participants were 197 non-random community-based males and females contacted through network sampling and online advertisements. Participants completed an online survey comprised of the following instruments, which measured the predictive variables: The Childhood Maltreatment Interview Schedule - Short Form (CMIS-SF; Briere, 1992) measured self-reported childhood maltreatment experiences, two of which formed the childhood maltreatment experiences variable (i.e., physical abuse and sexual abuse); the Self-Report Psychopathy Scale-III (SRP-III; Williams, Nathanson, & Paulhus, 2003) measured self-reported psychopathy; the Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997) measured self-reported abilitybased emotional intelligence; and twenty-eight streaming video clips, four for each of the seven universal emotional facial expressions (i.e., happy, sad, fear, surprise, anger, disgust, contempt) from the Micro Expression Training Tool (METT; Ekman, 2003-2006) used to measure abilitybased emotional intelligence. The total score of four subscales (e.g., psychological aggression, physical assault, sexual coercion, physical injury) from the Revised Conflict Tactics Scale (CTS2; Straus, Boney-McCoy, & Sugarman, 1996) comprised the outcome variable relationship conflict. Poisson regressions were completed and results indicated that psychopathy is the variable most predictive of relationship conflict in this sample. This is followed by childhood

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maltreatment experiences. Trait-based emotional intelligence gained significance as a predictor of relationship conflict but with a marginal effect size. Ability-based emotional intelligence and gender were not predictive in the model that took into account all the predictor variables. These findings and others are discussed in terms of their relevance in predicting relationship conflict in a community-based sample.

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DEDICATION

To my daughter Rhiannon, without whom this accomplishment would be meaningless at many levels. I love you.

In the three years since your birth I have learned more about emotional intelligence than in all my years without you. I have learned about my own emotional intelligence; but I also watched you acquire the 'language' of emotion: In the words that you now speak; in the love you display, now and before you were able to speak; and in the trust you have that love will be there. And it's not just love that you understand; you understand when someone is upset; whether they are sad, annoyed, or frustrated; you understand fear and what can help make fear go away. You display your understanding to we who are blessed to live with you each day; those whose care we place you in when we can't be there ourselves; the inanimate creatures that populate your world, whether as their fuzzy cozy selves, or in their animated forms. You bestow hugs and kisses; you comfort and commiserate; you encourage and reward; you tell us how you feel and why. You have illustrated for me, your mother, emotional intelligence in the making and through this process you have required me to grow and become more emotionally intelligent than any other experience has required me to do. You have demonstrated that the developmental precursors of early emotional intelligence are loving and sensitive parenting; parenting that takes into account your developmental stages and doesn't take your tempers personally but understands them to be a necessary part of who you are right now, as you strive to gain more autonomy, while at the same time wanting to remain a 'baby'. I love you more than words can ever express. I am so proud of you and the loving, empathic, intelligent, sensitive, curious, adventurous, creative little girl that you are; and no matter how old you are, or how old I am, you will always be my baby and I will always be your Mummy.

CHAPTER ONE

INTRODUCTION: THE IMPETUS

The idea for this research was born while I was collecting data for my master's thesis. Part of that research involved interviewing federally incarcerated male inmates about their family of origin and adult relationship experiences for purposes of determining their adult attachment style. Over the course of the interviews, I observed time and again what could only be termed "emotional unintelligence" (S. Sunshine, personal communication, October, 2008); that is, a seeming inability to describe emotional experiences with statements any more complex than "I felt bad." This simple emotional statement was frequently heard when I asked a man about his emotional response to childhood experiences of abuse, neglect, abandonment or other atrocities that we would not wish on anyone, never mind a child. Expecting to hear more specific descriptors of his emotional experience at the time, I would prompt for an emotion beyond "bad;" this sometimes led the man to reveal that he had felt "mad." This bad or mad response was frequently the only response that a man could generate, which, when one considers that he may have recounted witnessing his mother's murder; being sexually assaulted; being physically beaten by his father so badly that he was hospitalized; or being abandoned by his parents, seemed to me inadequate to describe what I imagined must have been a very complex emotional response to a traumatic circumstance. When discussing adult relationship experiences later in the interviews, I frequently had occasion to ask a man about his emotional response to a traumatic or troubling adult experience. As with their responses about childhood experiences, I heard "I felt bad" and more frequently "I felt mad;" this often in response to how he felt when his wife died tragically; or his girlfriend was unfaithful; or his children were taken away from him; or his best friend betrayed him; or his brother was killed. Interestingly, many of these men were in their 40's when I interviewed them and the majority had undergone some form of

treatment while in prison; for instance, Anger and Emotions Management, Intensive Violent Offender Treatment, or Intensive Sex Offender Treatment. All of these programs include modules meant to teach participants about their emotions and about managing their emotions appropriately; in addition, the intensive programs work on building empathy, as empathy is seen as a means of preventing violent or sexual reoffence. Yet despite these programs, these men still displayed deficits in their emotional intelligence, which by its simplest definition means having "the ability to reason about and use emotions to enhance thought more effectively than others" (Mayer, Salovey & Caruso, 2008).

Not unexpectedly, about 20% of the sample in my master's thesis research (Sirkia, 2000) was considered psychopathic, as determined by their score on the Hare Psychopathy Checklist-Revised (PCL-R, Hare, 1991-2003). To my surprise, however, being psychopathic alone did not seem to account for the inability of my participants to describe their own emotions (i.e., emotional unintelligence). Indeed, both the psychopathic and nonpsychopathic participants in my study seemed to lack emotional intelligence. Of equal interest, and again not surprising, was the finding that a full 67% of my sample had experienced multiple childhood maltreatment experiences (Sirkia, 2000). And, although the relationship between childhood maltreatment and emotional intelligence was not explored in my earlier study, my interest in understanding the relations among child maltreatment, psychopathy, and emotional intelligence was spawned.

The observations that emerged during my thesis research next sent me on a quest to determine if psychology had a term for the deficit I observed in these men. The first reading I did on the subject was on Emotional Competence (Saarni, 1999). This reading confirmed my hypothesis that the emotional deficits I observed in the inmates I interviewed were likely the result of inadequate parenting, which had certainly been the experience of the majority of the

inmates I interviewed. While emotional competence was satisfying in that it gave me a 'label' to describe the emotional voids I saw in these men, Saarni (1999) did not develop a theory of emotional competence and, more importantly, she did not provide a means of assessing it, which is what I wished to do.

Why did I wish to find a means of measuring emotional deficits in inmates? I did so because it seemed to me that if programs for violent and sexual offenders were attempting to teach empathy in an effort to stem violence, but were not adequately addressing the emotional deficits that appeared to exist in these men, that the programs would not be successful, at least if they hinged on empathy preventing future offending.

Another observation I made of the inmates during my thesis research, and later during the course of my work as a psychologist in the prison, was that some appeared to recognize that deeper and more complex emotions existed in themselves; however, they found these emotions frightening and had often turned to substance abuse to numb their emotions, leaving them with little or no ability to manage their emotions or experience in doing so effectively. Again, programming appeared to gloss over the life long emotional repercussions of traumatic experiences and the deficient means of coping with these emotions that these men had at their disposal, fuelling my desire for greater understanding of their emotional unintelligence in the hope that we could more adequately address these deficits.

An additional deficiency that I noted during my thesis research was the "one size fits all" approach to intervention programming for inmates, a deficiency that has been confirmed during the course of my work in the prison system. Distinctions between offenders in terms of program requirements are largely based upon type of offence; that is, sex offenders are required to take sex offender programming and violent offenders, violent offender programming, and so on. Of

special concern was the disregard for an inmate's psychopathy score, a concern because there is research that suggests that programming that focuses on emotions and building empathy can make psychopaths better criminals (e.g., Ogloff, Wong, & Greenwood, 1990) although there is some debate in this regard (e.g., D'Silva, Duggan, & McCarthy, 2004).

Eventually my search for understanding the emotional unintelligence I observed in inmates led me to the construct of *Emotional Intelligence* (Salovey & Mayer, 1990), which brought me to the dissertation research described herein. More specifically, the present research examines the associations among emotional intelligence, childhood maltreatment experiences, and psychopathy in a community sample of adults and not within an incarcerated criminal population in order to shed further light on these relations in the population at large.

THE RESEARCH

This research was largely exploratory, as it is the first to investigate the associations among four predictor variables: Emotional intelligence (ability and trait), childhood maltreatment experiences, and psychopathy; and one outcome variable, relationship conflict in a community-based sample of men and women. Moreover, it is the first to explore the extent to which emotional intelligence, child maltreatment experiences, and psychopathy can singularly or collectively predict relationship conflict. Each of the constructs examined will be described, in turn, in the following section, beginning with the term emotional intelligence.

Emotional intelligence refers to an integrated set of abilities that enable an individual to recognize, use, and regulate emotions in themselves, and others, in such a way that they can conduct themselves effectively in their social environments (e.g., Salovey & Mayer, 1990). Emotionally intelligent individuals are thought to be more socially effective hence conceptualizations of EI moved quickly into the public domain and are now broadly used in

business and educational realms as predictors of employee productivity, corporate or team allegiance, leadership prowess and academic success (e.g., Bar-On, 1997; Goleman, 1995). The measures of EI used in these domains are often referred to as 'trait' oriented or 'mixed models' of EI in which personal attributes more generally related to good personal and social functioning are integral to their conceptualization and measurement. As a consequence some researchers consider them a less valid measure of EI in general (e.g., Mayer & Salovey, 1997; Petrides et al., 2007). Despite its popularity in the public domain, trait oriented EI (EIT) is also employed in academic research settings, for instance, as a predictor of substance abuse problems (Riley & Schutte, 2003) and domestic abuse (Swift, 2002; Winters, Clift, & Dutton, 2004).

Some researchers (Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2000; Salovey & Mayer, 1990) feel that EI is best conceptualized as an 'ability' similar to IQ. Ability-based EI (EIA) is considered the more scientific conceptualization of the construct, as its definition focuses on mental abilities rather than on broad social competencies. EIA, as defined by Mayer and Salovey (1997), incorporates four major elements: emotional perception, emotional assimilation, emotional understanding, and emotional regulation. Although conceptually pleasing, the measurement of EIA has proved somewhat challenging, as the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2002a) and the Multifactor Emotional Intelligence Scale (MEIS; Mayer, Caruso, & Salovey, 1997; as sited in Swift, 2002), while touted by the authors to be both reliable and content valid, includes performance-based scales that initially proved to be unreliable. While this situation has improved over time (Mayer, Salovey, Caruso, & Sitarenios, 2003) more research is warranted and the authors of the MSCEIT admit that "the test has important limitations" (Mayer, Salovey, & Caruso, 2008). It is important to note that many researchers agree with Mayer, Salovey and

Caruso on this point: That is, there remains debate and disagreement on the subject of emotional intelligence being conceptualized as an 'intelligence' (e.g., Brody, 2004; Ortony, Revelle, & Zinbarg, 2007), while others (e.g., Conte, 2005; Keele & Bell, 2008; Rossen, Kranzler, & Algina, 2008) point out conceptual and empirical problems with its' measurement by means of the MSCEIT (Mayer, Salovey, & Caruso, 2002a).

Although the debate as to whether EI is best conceptualized as an ability or as a trait has yet to be resolved, there are numerous findings from both realms that suggest EI is associated with effective interpersonal functioning. While EI has been positively associated with effective interactions with friends and family (Engelberg & Sjoberg, 2004; Lopes, Brackett, Nezlet, Schultz, Sellin, & Salovey, 2004; Lopes, Salovey, Cote, & Beers, 2005; Lopes, Salovey, & Straus, 2003) and negatively associated with deviant behaviour, such as drug and alcohol use (Riley & Schutte, 2003), only two studies have assessed the relationship between EI and interpersonal conflict in romantic relationships (Swift, 2002; Winters et al., 2004).

Swift's (2002) unpublished dissertation research investigated the associations between EI, hostility, anger, and male heterosexual intimate partner violence (IPV). He hypothesized that higher levels of anger and hostility would be related to higher levels of reported IPV and that higher levels of emotional intelligence would be related to lower levels of reported IPV. Swift (2002) drew his sample from a court mandated family violence prevention education program in New Haven, Connecticut. He used the Multifactor Emotional Intelligence Scale (MEIS; Mayer, Caruso, & Salovey, 1997; as sited in Swift, 2002) to measure EIA and the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) to measure interpersonal violence (IPV). Swift's (2002) results did not support his hypotheses: That is, he found that men with higher EIA, as measured by the MEIS (Mayer, Caruso, & Salovey, 1997; as

sited in Swift, 2002) did not report significantly less interpersonal violence than did men who had lower EIA. Swift's (2002) findings yielded another interesting result. He had hypothesized that men who had a better ability to manage their own emotions and those of others, as measured by the MEIS (Mayer, Caruso, & Salovey, 1997; as sited in Swift, 2002), would report fewer incidents of interpersonal violence. Contrary to expectations, however, his findings indicated that levels of interpersonal violence increased for men with good emotion management skills, particularly their levels of psychological aggression, indicating that these individuals may "'manage' their emotions and the emotions of their intimate partners through the use of severe IPV"(interpersonal violence) (Swift, 2002, p. 71). Swift (2002) suggested that based on these results, these participants may be "associated with Jacobson and Gottman's (1998) 'cobra' or Holtzworth-Munroe et al.'s (2000) 'generally violent/antisocial' batterer" (p. 71). Swift (2002) also conducted regression analyses and found that the only variable that "approached significance as a predictor for Severe IPV" (p. 72) was the Perceiving Faces subscale of the MEIS (Mayer, Salovey, & Caruso, 1997; as sited in Swift, 2002).

Winters et al. (2004) conducted an exploratory study of EI and domestic abuse and their findings differed from those of Swift (2002). These researchers also employed a sample of men who had been convicted of domestic abuse; however, they used the EQ-i (Bar-On, 1997) to measure EIT or mixed emotional intelligence (Winters et al., 2004), which unlike the MEIS (Mayer, Salovey, & Caruso, 1997 is a self-report questionnaire. Unlike Swift (2002) they had a comparison sample of university students, and when they compared the convicted men with the university students, they found that the men convicted of domestic abuse scored significantly lower than the university comparison group of men on all components of the EQ-i (Bar-On, 1997). Contrary to Swift's (2002) findings, Winters et al.'s (2004) findings suggest that EIT

may be associated with romantic relationship conflict in general, a finding that could have implications in a number of settings. For instance, the information could be useful in child custody and access decisions, in marital or couples counselling, in the treatment of domestically violent men and women, and in foster and/or adoption placement decisions.

This study sought to extend Winters et al.'s (2004) findings by looking at the associations between EI and relationship conflict. Although Swift's (2002) dissertation was not available at the time the proposal for this research was approved in 2005, the instrument he chose to measure emotional intelligence highlights the debate that continues regarding the utility of EIA versus EIT measures, in that it differs from that chosen by Winters et al. (2004); hence it was decided to measure both types of EI in this study. The self-report Emotional Quotient Inventory (EQ-i; Bar-On, 1997) was used as a measure of EIT (or mixed-model emotional intelligence), whereas 28 clips of faces briefly displaying the seven universal emotions (e.g., happy, sad, angry, disgust, contempt, fear, and surprise) (Micro-expression Training Tool; Ekman, 1996-2003), were used as a measure of EIA, as this is operationally similar to the Perceiving Faces subscale of the MEIS (Mayer, Salovey, & Caruso, 1997; as sited in Swift, 2002), which Swift (2002) found to be the only variable that "approached significance as a predictor for Severe IPV" (p. 72) in his regression analysis.

Relationship conflict was selected as an outcome measure not only because the idea for this research sprang from observations of the 'emotional unintelligence' displayed by violent men in the course of my master's research along with the wish to extend Winters et al.'s (2004) findings, but because our functioning within the context of our closest relationships is likely most revealing of our emotional intelligence. For instance, we might be able to 'bite our tongue' in the grocery store or refrain from running someone off the road when faced with an

emotionally provoking encounter in those contexts, but that same ability may be lost in the face of an encounter with a loved one, as it is in these relationships that we are most vulnerable: to abandonment, to judgement, to disappointment, to feelings of powerlessness, thereby making those encounters more likely to be the venues in which our emotional intelligence is showcased, for better or worse. For purposes of this research, relationship conflict is defined as the use of physical, sexual, or psychological maltreatment perpetrated in the context of a romantic relationship and was operationalized via the Revised Conflict Tactics Scale (CTS2; Straus, 1996/2004), as it is a well validated and frequently used measure of intimate partner violence.

In addition to determining what associations, if any, exists between EI and relationship conflict, this study investigates the association between childhood maltreatment experiences (CME) and EI. For purposes of this research childhood maltreatment experiences are defined as witnessing domestic violence between parental figures; being sexually abused; being physically abused; being emotionally neglected; being verbally abused, and the presence of parental substance abuse in the familial home. New research suggests that EIA, operationalized as the ability to identify the seven universal emotions presented as micro-expressions, may be linked to witnessing or experiencing childhood maltreatment (O'Sullivan, 2005). The theory is that some individuals who grow up experiencing or witnessing maltreatment may be more attuned to the emotions of others, developing what could be described as an adaptive response to a dysfunctional environment. For instance, if a child is being raised in a family with an alcoholic or otherwise unpredictable caregiver, it would be adaptive to be able to pick up on subtle cues to the caregiver's state of mind, which would allow the child to either remove him or herself from the environment or to somehow intervene in an attempt to change the caregiver's mood. The suggestion that some people may become 'Wizards' (O'Sullivan, 2005) in response to familial

dysfunction is an interesting one, as it may explain why some children exposed to domestic violence, either as witnesses or victims, do not become abusers while others go on to be abusive themselves (Dutton, 1998).

Shipman, Zeman, Penza, and Champion (2000) conducted a study that compared the emotion management skills of sexually maltreated girls to those of their non-maltreated counterparts to determine if and how being sexually maltreated had interfered with their emotional development. In this study, emotion management refers to emotional understanding and emotion regulation (Shipman et al., 2000). Results indicate that sexually maltreated girls, in comparison to their non-maltreated peers, demonstrated lower emotional understanding and a decreased ability to regulate their emotions in an appropriate manner. The maltreated girls were also found to expect less emotional support and more relational conflict from parents in response to displays of sadness and from both parents and peers in response to displays of anger (Shipman et al., 2000). The authors (Shipman et al., 2000) note that the emotion management strategies employed by the sexually abused girls in their study may have been helpful in terms of assisting them in adapting to their abusive environments; however, they speculate that these very strategies may also "place them at risk for subsequent adaptational failures in development." (Shipman et al., 2000, p. 59). In order to assess the relevance of CME to EI this study included an assessment of participants' childhood experiences, which will be correlated to their EIA and EIT scores. An expanded version of the Briere's (1992) Childhood Maltreatment Inventory Scale is used to determine childhood experiences.

This study also explores the association between CME and relationship conflict, an area researched in the past, but with inconclusive results. For instance, many studies have examined the familial transmission of violence and have determined that experiencing violence in

childhood is a significant risk factor for perpetrating violence with an intimate partner is adulthood (e.g., Bernard & Bernard, 1983; Kaura & Allen, 2004; O'Keefe, 1998; Stith, Rosen, Middletone, Busch, Lundeberg, & Carlton, 2000; Sugarman & Hotaling, 1989). Bernard and Bernard (1983) found that 73% of male undergraduate students who were physically violent within the context of an intimate relationship had experienced or witnessed family of origin violence compared to 32% of a sample of non-violent men. Similarly, Sugarman and Hotaling (1989) found that men who experienced early childhood violence were significantly more likely to engage in minor forms of physical dating violence than in verbal abuse.

Researchers have also looked at the associations between experiencing violence in the family of origin and sexually aggressive behaviours. For instance, Baron and Richardson (1994) and Forbes and Adams-Curtis (2001) found that any experience of violence in the family of origin, regardless of the recipient of that violence, increases the risk of perpetrating sexual aggression later in life.

Despite these findings indicating support for the contention that there is continuity regarding the transmission of violence from one generation to another, there are some researchers (e.g., Lewis & Fremouw, 2001) who have argued that the evidence for this phenomenon is limited, as is the evidence of an association between being abused in childhood and later intimate partner violence. This argument is supported, in part, by a meta-analysis (Stith et al., 2000), that found that the correlations between witnessing or experiencing violence in the family of origin and perpetrating physical violence against an intimate partner in later life ranged from small (r = ,08) to large (r = .35). On this basis, although the experience of violence in the family of origin appears to be an important factor in the later perpetration of intimate partner violence, its power as a predictor is as yet inconclusive and warrants further study.

Another construct that is associated with aggression in general and violent aggression in particular, is psychopathy. The majority of research done in these areas is done with offender populations, as psychopaths are rare in the community at large, comprising perhaps 1% of the general population (Hare, 1993). However, the research that does exist on psychopaths in the community suggests they employ bullying, coercion, and intimidation in the workplace (Babiak & Hare, 2006); report significantly more sexually aggressive acts (Kosson, Kelly, & White, 1997); and have an increased risk of engaging in intimate partner violence (Dutton, 1998; Hare, 1993; Holzworth-Munroe & Stuart, 1994; as sited in Winters et al., 2004). Recent studies using university samples have explored the relationships between sub-clinical subtypes of primary or secondary psychopathy (Coyne & Thomas, 2008; Falkenbach, Poythress, & Creevy, 2008) and aggression; both indirect versus direct aggression and instrumental versus reactive aggression; however, although this research was important in shedding light on the nature of the relation between psychopathy and dimensions of aggression - the researchers did not examine these relations in association with relationship conflict. As there remains a dearth of research on the association between psychopathy and its predictive power in relation to romantic relationship conflict for those residing in the community, this variable was included in this study.

Although there exists a small body of research on the associations between psychopathy and relationship conflict in community-based samples, there is little research examining the nature of the relation between psychopathy and emotional intelligence. This seems particularly surprising when one considers that traditional conceptualizations of psychopathy view affective and interpersonal deficits as core traits of the disorder (Hare, 1991/2003), suggesting that psychopaths by their very nature are likely to possess low EI. Emotional facial and vocal recognition studies (Blair & Coles, 2000; Blair, Colledge, Murray, & Mitchell, 2001; Stevens,

Charman, & Blair, 2001) with psychopaths reveal that they have difficulty identifying some emotions, particularly fear; hence a more in-depth investigation of EI and psychopathy seems warranted. Interestingly, Swift's (2002) finding that the ability to manage one's emotions and those of others, as measured by the MEIS (Mayer, Salovey, & Caruso, 1997; as sited in Swift, 2002), is related to elevated levels of interpersonal violence, particularly psychological aggression, may indicate that some individuals with psychopathic tendencies are not deficit in EI. At some levels, this finding makes sense, particularly if one considers non-criminal psychopaths, the likes of whom are sometimes very successful, particularly in business endeavours, but who tend to leave a trail of psychologically victimized individuals behind them (Babiak & Hare, 2006). If EI is negatively associated with psychopathy then future investigations with offender populations will be warranted, as EI may be a mechanism by which to discriminate between 'types' of psychopaths. This could help target psychopaths who might benefit from treatment. EI may also provide a means of identifying specific emotional deficits in psychopaths, which could then be directly targeted by appropriate treatment. Conversely, if it is found that some with elevated levels of psychopathy are not deficit in EI, this is also helpful, as it again has significance for treatment decisions. Forensic lore suggests that for some psychopathic individuals treatment makes them better psychopaths; particularly if the treatment focus is understanding others' emotions; in the context of EI being a skill that can be learned, this would be an important finding. As a community sample of adult men and women comprise the sample for this research, the Self-report Psychopathy Scale - III (SRP-III; Williams, Nathanson, & Paulhus, 2003) was employed to determine psychopathic tendencies.

Finally, this study investigates the utility of a model that incorporates CME, EI, and psychopathy as predictors of relationship conflict.

HYPOTHESES

The first set of hypotheses explores gender differences among predictor variables; that is, between childhood maltreatment experiences, psychopathy, and emotional intelligence (trait and ability). The hypotheses are: a) females will have more CME than men; b) females will have higher EIT scores than men; c) females will have higher EIA scores than men; d) males will have higher psychopathy scores than women, and the outcome variable: e) men will have higher RC scores than women.

Next, an exploration of relations amongst the four predictor variables was done with the following hypotheses: a) the presence of CME will result in lower EIT; b) the presence of CME will result in lower EIA; c) the presence of CME will result in higher psychopathy scores; d) higher EIT scores will result in lower psychopathy scores; e) higher EIA scores will result in lower psychopathy scores; and f) EIA and EIT will be correlated, but not perfectly.

Third, an exploration of the relations between the four predictor variables and the outcome variable were conducted with the following hypotheses: a) the presence of CME will result in higher CTS2 scores (higher levels of RC); b) higher levels of EIA will result in lower levels of RC; c) higher levels of EIT will result in lower levels of RC; and d) higher levels of psychopathy will result in higher levels of RC.

Finally, exploratory regression analyses were conducted to determine the extent to which the four predictor variables and gender predict the outcome variable relationship conflict. Specifically, it was hypothesized that each of the predictor variables will contribute to an overall model predicting RC.

CHAPTER TWO:

REVIEW OF LITERATURE

Emotional Intelligence: An Overview

The traditional view of what constitutes human intelligence contends that intelligence is a limited set of cognitive capacities determined by intelligence testing (e.g., Wechsler Adult Intelligence Scale-Revised or Stanford-Binet Test). These tests are ability based and involve the manipulation of neutral objects such as words, numbers, and puzzles in contexts that are designed to hold motivational and emotional factors constant (Barrett & Gross, 2001). While cognition clearly plays an important role in adaptive living, an exclusively cognitive view of intelligence overlooks the important adaptive functions served by other psychological features integral to our success. In an effort to broaden traditional conceptualizations of intelligence, a number of researchers began to focus on the role played by emotion in adaptive responding to environmental demands (e.g., Salovey & Mayer, 1990). Salovey and Mayer (1990) were not the first to expand on what constitutes intelligence; for instance, Gardner (1983) proposed that there are six intelligences rather than a singular intelligence. His first three intelligences – linguistic, logical-mathematical, and spatial – are what standard intelligence tests measure: Of the last three – musical, bodily-kinesthetic, and personal, it is personal intelligence, which he (Gardner, 1983) broke down into intrapersonal intelligence (i.e., the ability to monitor one's own feelings and emotions; to discriminate among them; and use them to guide one's actions) and interpersonal intelligence (i.e., the ability to notice and understand the needs and intentions of others; and to monitor their moods and temperaments in order to predict their behaviour in new situations), that is directly related to emotional intelligence, as conceived of by Salovey and Mayer (1990).

Emotions function in diverse ways. For instance, emotions can serve as a guide as to what to do in certain situations initiating a rapid motor response (e.g., fear induces a 'fight or flight' response). Emotions can help shape appropriate social functioning by tailoring cognitive style (Clore, 1994; as cited in Barrett & Gross, 2001) and neuropsychological evidence suggests that impaired emotion systems render an individual incapable of dealing with complex social situations (Damasio, 1994). However, although emotions may contribute to adaptive behaviour, they can also lead to maladaptive responses when emotional information is misinterpreted or when emotional regulation is impaired. Ideal emotions are experienced and expressed. In order for this process to take place it is necessary that an individual be able to accurately track their own ongoing emotional state and to understand when and how to intervene to shape their emotions when necessary (Barrett & Gross, 2001). This process is now referred to as emotional intelligence (EI).

When Salovey and Mayer coined the term EI in 1990, the concept quickly drew interest from scientific communities and the lay public alike. The empirical investigation of EI was somewhat hampered early on due to the popularization of the construct by Goleman (1995) who defined it as "knowing one's emotions... managing emotions... motivating oneself... recognizing emotions in others... [and] handling relationships" (p. xii). His conceptualization of EI included personal attributes more generally associated with adaptive personal and social functioning, which may or may not be related to emotion-based skills or abilities, at least according to some researchers (Mayer et al., 2000). Goleman's (1995) view of EI ignited its use in diverse domains, such programs for school children and job performance evaluations in the business world. While these uses are seen as premature by many investigators, they continue to

proliferate. A good example is Dan Goleman's Consortium for Research on Emotional Intelligence in Organizations found at http://www.eiconsortium.org/, whose mission it is "to advance research and practice of emotional and social intelligence in organizations through the generation and exchange of knowledge."

Goleman's view of EI is shared, at least in part, by other researchers (Bar-On, 1997; Graziano & Tobin, 1998; Petrides & Furnham, 2001). Bar-On (1997) began to investigate the notion of EI after noticing that some people with high intelligence, as measured by traditional IQ measures, were not always successful in social domains. He thought that EI might provide an explanation for the discrepancies between cognitive ability and social success. Bar-On (1997) defines EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 3). He suggests that EI is comprised of emotional, personal, social, and survival dimensions of intelligence, all of which help the emotionally intelligent person understand themselves and others; relate to others; and adapt to, and cope with, their social environments. EI, as conceptualized and measured by Goleman (1995) and Bar-On (1997), is thought of as 'traitbased' or 'mixed' EI and is measured by means of self-report questionnaires.

An alternative view holds that EI is comprised of a set of abilities that are distinct from the verbal-spatial abilities that make up general intelligence (Mayer et al., 1999). These abilities are thought to be related to psychological adaptation (Mayer & Salovey, 1993), in particular to the emotional competencies that are fundamental to social intelligence (Salovey, Bedell, Detweiler & Mayer, 2000), which encompasses social problem solving skills and other practical abilities (Salovey et al., 2000). This view is considered by some to be the more "scientific treatment" (Barrett & Salovey, 2002) of the construct, although whether or not it is a separate

form of intelligence (Mayer et al., 2000) is still the subject of debate (Davies, Stankov, & Roberts, 1998; Kaufman & Kaufman, 2001; Roberts, Zeidner & Matthews, 2001; Zeidner, Matthews & Roberts, 2001). This is an 'ability-based' view of EI and it is traditionally assessed by means of ability testing, such as identifying the emotion in a person's face, a story or a painting Mayer and Salovey (1997).

An overview of ability-based EI (EIA), its measurement and concerns about these measures follows, after which a similar overview will be done for trait-based EI (EIT).

MODELS OF EMOTIONAL INTELLIGENCE

Ability-Based Emotional Intelligence

Mayer and colleagues (Mayer, Caruso & Salovey, 1999; Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2004) conceive of EI as an ability-based intelligence and advocate the use of objective, ability-based indicators of EI. According to them, ability testing is the 'gold standard' in intelligence research, because intelligence is the capacity to perform some task, rather than individuals' beliefs about their abilities. Within this framework, tasks have been developed that are thought to directly measure EIA through the solution of a problem; for instance, identifying the emotion in a person's face, in a story, or a painting (Mayer & Salovey, 1997). Ideally, there should be an objective answer against which an individuals' response to a task can be evaluated (Mayer & Geher, 1996).

Mayer and Salovey's (1997) model of EIA is divided into four branches. Branch 1, 'Identifying Emotions,' is defined as the ability to perceive emotions in oneself and others, as well as objects, art, and events. Branch 2, 'Using Emotions,' is defined as the ability to generate, use, and feel emotion to communicate feelings, or employ them in thinking and creating. Branch 3, 'Understanding Emotions,' is defined as the ability to understand emotional information, how emotions combine and progress, and to reason about such emotional meanings. And finally, Branch 4, 'Managing Emotions,' is defined as the ability to regulate emotions in oneself and others so as to promote personal understanding and growth (Mayer & Salovey, 1997). This fourbranch model was first operationalized through the Multi-Factor Emotional Intelligence Scale (MEIS; Mayer et al., 1999), which was then updated and has been replaced by the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2000). Both of these measures use consensus scoring, which involves obtaining credit for endorsing the response that

most group members give; expert scoring, which involves experts in the field of emotion determining the 'right' answer; and target scoring, which involves the individual who creates the task providing information as to its emotional valence (Mayer et al., 1997/2000).

The MSCEIT contains two tasks to measure each of the four branches of the Mayer et al. (1997/2000) model of EIA. Branch 1, Perceiving Emotions, is measured through the identification of emotions on 'faces', a highly recognized and valid method (e.g., Ekman, 2003; Ekman & Friesen, 1975); and through the identification of emotion conveyed by pictures of landscapes and designs (Mayer et al., 1990). Branch 2, Using Emotions to Facilitate Thought, is measured through 'sensations,' a task that involves participants comparing emotions to other tactile and sensory stimuli (Davitz, 1969; Fromme & O'Brien, 1982; as cited in Mayer et al., 2004). The second branch 2 task is 'facilitation,' during which participants identify emotions that would best facilitate a type of thinking, for instance, planning a birthday party (Erez & Isen, 2002; Isen, 2001; Palfai & Salovey, 1993; as cited in Mayer et al., 2004). Branch 3, Understanding Emotions, is measured with a 'changes' task and a 'blends' task. The changes task tests a person's ability to know what circumstances lessen emotional intensity and what circumstances heighten emotional intensity and how one emotional state changes into another (e.g., frustration to aggression; Roseman, 1984; as cited in Mayer et al., 2004). The blends task asks the participant to identify emotions that are involved in more complex affective states (Plutchik, 1984; as cited in Mayer et al., 2004). Finally, branch 4, Managing Emotions, is measured through the 'emotional management' task, which involves presenting participants with hypothetical scenarios and asking how they would maintain or change their feelings (Gross, 1998; as cited in Mayer et al., 2004). The second branch 4 task is the 'emotion relationships'

task, which asks participants how to manage others' feelings so that a desired outcome is achieved (e.g., Chapin, 1942; Ford & Tisak, 1983; as cited in Mayer et al., 2004).

Although the MSCEIT and its predecessor have been widely used, the tasks used to assess the branches continue to have difficulties with reliability. For instance, Roberts et al. (2001) report that it is at times challenging to determine what the objectively correct responses are to stimuli involving emotional content; they also suggest it is difficult to use veridical criteria for scoring emotional ability tasks. Roberts et al. (2001) also suggest that EI could be objectively measured by means of lower order tasks (i.e., Branch 1 – Identifying Emotions) linked to perception and sensation because, in their option, none of the scoring procedures commonly used for the higher order tasks are satisfactory. They note that this is especially the case for tasks in which the reactions can only be assessed for accuracy through reference to personal or societal standards (Roberts et al., 2001).

Mayer et al. (2004) contend that these criticisms and other like them (Matthews et al., 2002; Roberts et al., 2001) are no longer justified, as they were "aimed at our first exploratory measures of El" (p. 202) and considered individual task scores rather than branch, area and total EI scores, which they claim are reliable. Mayer et al. (2004) provide current reliabilities for the MSCEIT that range from .91 to .98 for the total test score, .90 to .98 for the 'experiential area' (branches 1 and 2) and .86 to .97 for the 'strategic area' (branches 3 and 4); individual task reliabilities range from a high of .97 (faces) to a low of .55 (sensations). Barchard and Hakstian (2004) assessed the reliability of several EI measures, including the MSCEIT. They reported reliabilities for several of the tasks including faces (.80), pictures (.84 to .86), and sensations (.66), amongst others; they did not, however, provide total score, area or branch reliabilities. Interesting, although Mayer et al. (2004) contend that their tasks are ability-based and therefore

more able to yield an objective answer, several of their tasks involve asking the participant how they would respond to a situation. This procedure is employed for the branch 3, managing emotions tasks, one of which generally yields respectable reliabilities. However, although Mayer et al. (2004) refer to this as an ability-based task, it is very similar to a self-report measure.

Another debate that continues to haunt Mayer et al.'s (1997) ability theory of EI is the issue of whether it is a standard intelligence. Mayer et al. (2000) contend that it is, stating that they have satisfied the three standard criteria necessary for EI to be considered an 'intelligence'. The standards referred to encompass 'conceptual criteria', 'correlational criteria' and 'developmental criteria' (Mayer et al., 2000). Conceptual criteria suggests that "intelligence must reflect mental performance rather than simply preferred ways of behaving, or a person's self-esteem, or non-intellectual attainments" (Mayer et al., 2000; p. 269). In addition, mental performance should clearly measure the concept, in this case "emotion-related abilities" (Mayer et al., 2000, p. 270). The "correlational criteria describe empirical standards: specifically, that an intelligence should describe a set of closely related abilities that are similar to, but distinct from, mental abilities described by already-established intelligences" (Mayer et al., 2000; p. 270). Finally, the "developmental criteria state that intelligence develops with age and experience" (Mayer et al., 2000; p. 270); Mayer et al. (2000) claim that they have satisfied all these criteria and describe two studies in support of this contention.

In the first study, an adult sample drawn from various sources participated; they were above average in education; had a mean age of 23 years; and were roughly representative of the ethnic composition of the United States (Mayer et al., 2000). The sample was administered the MEIS, the predecessor of the MSCEIT. It consists of 12 tasks, divided into four classes, or

branches, corresponding to the branches in Mayer et al.'s (1997) ability theory; namely, perceiving, assimilating, understanding and managing emotions. Branch one, perceiving emotions, employed four tests that purported to measure emotional perception – in faces, in music, in design, and in stories. Branch two, assimilating emotions, included two tests; one that measured the ability to describe emotional sensations and their parallels to other sensory modalities, and the other of 'feeling biases.' The third branch, understanding emotions, had four tests, including 'blends', 'progressions,' and 'transitions' between and among emotions, as well as 'relativity' in emotional perception. The fourth branch, emotion management, used vignettes to look at emotion management in self and other (Mayer et al., 2000). As can be seen from these brief descriptions, many of these tests appear to have a subjective quality about them, likely rendering objective judgments of right and wrong answers difficult. Mayer et al. (2000) tackled this issue by employing three scoring methods: consensus, expert, and target, which were previously described.

In addition to the MEIS, two classes of criterion scales were administered -- those classified as primary criteria were measures of intelligence and self-reported empathic feeling (Mayer et al., 2000). The Army Alpha vocabulary subtest was used to measure verbal intelligence and an empathy scale was developed by Caruso and Mayer (1999), which is reported to have similar content to the Epstein-Mehrabian scale (Mehrabian & Epstein, 1972; as cited in Mayer et al., 2000). Secondary criteria were also gathered including life satisfaction, artistic skills, parenting warmth, psychotherapy, and life space leisure (Mayer et al., 2000).

Analyses were performed at three levels of the data: 1) a comparison of scoring methods, 2) a factor analysis of the emotional intelligence task intercorrelations, and 3) the correlations between EI and the primary and secondary criteria (Mayer et al., 2000).

According to Mayer et al. (2000) results indicate the "emotional intelligence shows a pattern that is consistent with a new domain of intelligence" (p. 288). They suggest that EI can be operationalized as sets of abilities, and "better answers can be distinguished from worse answers" (Mayer et al., 2000; p. 288), a less than convincing statement. Mayer et al. (2000) reported that their three scoring methods converged, although consensus was deemed superior to the others. The factor analysis of the MEIS revealed that its 12 tasks were intercorrelated and yielded four scores: 1) a superordinate factor of general emotional intelligence, said to provide "one excellent and economical method for representing the concept" (Mayer et al., 2000; p. 288); and three subscale scores, 2) perception, 3) understanding, and 4) managing, thereby reducing their four-branch model to a three-branch model. In terms of the criterion measures, they reported that EI, as measured by the MEIS, was found to be correlated moderately with the Army Alpha measure of verbal intelligence, thereby indicating that EI is related to other intelligences "without being the same" (Mayer et al., 2000; p. 288). EI was also said to "show promise" (Mayer et al., 2000; p. 288) as a predictor of other criterion, such as empathy, parenting style reported retrospectively, and life activities. Based on these results, Mayer et al. (2000) claim the EI has met the first two criteria necessary to be called a traditional intelligence. The second study reported by Mayer et al. (2000) aimed to address the third criteria: development with age.

In order to determine if EI increases with age Mayer et al. (2000) administered several components of the MEIS used in study one to a young adolescent sample, then compared their performance to that of the adult sample in study one. The adolescent sample had a mean age of 13.4 years and was recruited from local schools and a religious group. Due to time constraints and age appropriateness, only a portion of the MEIS was administered. This included: Branch one – faces, music and design, and age appropriate stories; branch two – sensation; and branch

three – blend and relativity. In addition, the Army Alpha Vocabulary scale and the empathy scale were administered. All three scoring methods were employed; however, consensus scoring was modified. Results indicated that the adults performed at higher levels than the adolescents; additionally, EI for the adolescents showed the same relationships to verbal intelligence and empathy as it did with the adults (Mayer et al., 2000). On the basis of these findings, Mayer et al. (2000) concluded that EI, as described by their ability theory and operationalized by the MEIS, met the third criteria necessary to "demonstrate a plausible case for the existence of this intelligence" (p. 291).

Mayer et al. (2000) acknowledge that these results only provide the "roughest idea of the relation between emotional intelligence and other intelligences" (p. 293). They concede that the relationships between EI and other similar constructs, such as social intelligence and personal intelligence, require further investigation (Mayer et al., 2000). They also admitted that it would be important for the MEIS to be correlated with personality scales, such as the Big Five (McCrae & Costa, 1997; as cited in Mayer et al., 2000).

Criticism has been levied at Mayer et al.'s (2000) contention that their ability-based model of EI has satisfied the criteria necessary to be called a standard intelligence (Kaufman & Kaufman, 2001; Roberts et al., 2001; Zeidner et al., 2001). Each of their views will be described briefly.

Roberts and colleagues (2001) are cautious in their support of Mayer et al.'s (2000) contention that EI has met the criteria to qualify as an 'intelligence.' They point out that with respect to the operationalization criteria, Mayer et al. (2000) claimed that the target criteria of the MEIS converged, that is, were positively correlated, with correlations between consensus and expert scores ranging from -.16 to .95, with half exceeding an r of .52. Roberts et al. (2001) also

suggest that there are limitations with respect to the second criterion; that is, the degree of overlap between EI and other forms of intelligence, as measure by Army Alpha Vocabulary Scale. Roberts et al. (2001) note that the Army Alpha is rarely used in current cognitive ability research; they also contend that another study (Ciarrochi et al., 2000; as cited in Roberts et al., 2001) found near zero correlations between general EI as measured by the MEIS and the Australian version of the Ravens Standard Progressive Matrices test (Australian Council of Educational Research, 1989; as cited in Roberts et al., 2001). Roberts et al. (2001) also note that, with respect to the third criteria, development with age, the study cited by Mayer and colleagues (2000) employed a cross-sectional design, thereby allowing interpretation of age group differences, not developmental differences. Lastly, they contend that the absence of research looking at the overlap between ability-based EI and existing personality scales is a serious challenge to the acceptance of EI as a separate cognitive ability rather than a personality trait (Roberts et al., 2001).

In an effort to advance the state of knowledge on EI, both empirically and conceptually, Roberts and colleagues (2001) undertook a study in order to address some of the contradictions they had revealed. Specifically, they sought answers to the following questions: 1) Is the construct of EI, as assessed by the MEIS, psychometrically sound? 2) Do consensus and expert scoring demonstrate convergent validity and do they yield similar and reliable coefficients? 3) What are the relationships between EI, personality traits, and abilities? And 4) How do gender, ethnicity and age differences impact performance based assessments of EI?

Seven hundred and four United States Air Force (USAF) trainees participated in the study (Roberts et al., 2001). Eighty-nine percent were men, ranging in age from 17 to 23 years. Thirty percent had some college and over 61% were engaged in technical operations in the USAF. The

participants completed the following measures: the MEIS; the Army Services Vocational Aptitude Battery (ASVAB), a measure comprised of 10 subtests, which can be combined to form five composite scores, one of which was used as an index of general intelligence; and the Trait-Self Description Inventory (TSDI), which was designed to assess each of the Big Five personality factors (neuroticism, agreeableness, conscientiousness, extraversion and openness). Roberts and colleagues (2001) report that the results obtained provide only equivocal support for the first two criteria necessary before EI can be conceived of as a legitimate form of intelligence. They state that the most severe difficulties relate to scoring and hence reliability, as their findings demonstrated limited psychometric convergence for the expert and consensus scoring methods (Roberts et al., 2001). On a positive note, Roberts et al. (2001) report that their data provide some support for correlational criteria by demonstrating only modest correlations between EI and general intelligence. Their findings also provided preliminary evidence for the divergent validity of EI, as compared to personality traits; however, they expressed concern about the validity coefficients of the MEIS, which were small (often less than .30). This finding made it unclear as to whether the predictive validity of the MEIS could be maintained if personality and ability were statistically controlled (Roberts et al., 2001). They concluded that until such time that adaptive advantages for high scores on the MEIS can be demonstrated above those obtained from general intelligence and personality traits, the utility of EI remains doubtful (Roberts et al., 2001).

More recent investigations into the utility of EIA have used the MSCEIT with more convincing results. In fact, several studies directly address Roberts et al.'s (2001) concern regarding adaptive advantages for high scores on the MEIS, as noted above.
Lopes, Salovey, and Straus (2003) explored the links between EI, as measured by the MSCEIT, personality traits, and the perceived quality of participants' interpersonal relationships. In a sample of 103 college students, Lopes et al. (2003) found that both EIA and personality traits were associated with concurrent self-reports of satisfaction with social relationships. In particular, Lopes et al. (2003) found that participants who scored high on the managing emotions subscale of the MSCEIT were more likely to report positive interactions with others. In addition, these participants reported higher perceived parental support and were less likely to report negative interactions with close friends. After controlling for significant Big Five personality traits and verbal intelligence these associations remained statistically significant (Lopes et al., 2003).

Lopes et al. (2004) conducted two studies that furthered their (2003) findings. Both studies confirmed the earlier findings of positive relationships between the ability to manage emotions, as measured by the MSCEIT and the quality of social relationships. These follow-up studies differed from the Lopes et al.'s (2003) study in that the first 2004 study included the self-report of the participants, but augmented their reports with evaluations conducted with two friends (Lopes et al., 2004). The second of the 2004 studies was also different in that it was a diary study. This study revealed that managing emotions scores were positively related to perceived quality of interactions with the opposite sex and perceived impression management with the opposite sex (Lopes et al., 2004). In both studies the results remained statistically significant after controlling for Big Five personality traits (Lopes et al., 2004).

Lopes, Salovey, Cote, and Beers (2005) found that emotional regulation abilities, as measured by the MSCEIT, were related to both self-reports and peer nominations of interpersonal sensitivity and prosocial tendencies. Again, these relationships remained

statistically significant after controlling for Big Five personality traits, as well as for verbal and fluid intelligence (Lopes et al., 2005).

On the basis of these three studies it would seem that there is utility in the construct of EIA, at least as it is captured by the emotion management (regulation) subscale of the MSCEIT. Additional components of the MSCEIT have also received some positive affirmation.

Engelberg and Sjoberg (2004) investigated the claim that EI involves emotion perception. These researchers operationalized emotional perception as accuracy in judging "others' acute and habitual feeling states" (Engelberg & Sjoberg; 2004, p. 534). Measures of EIA and EIT were used; however they did not use the MSCEIT. Instead the researchers used a performance test developed by Sjoberg (2001b, 2001c; as cited in Engelberg & Sjoberg, 2004), which is comprised of 20 descriptions of social problem episodes involving two key actors. Participants are asked to rate to what extent each of the actors felt happy, sad, angry, ashamed, proud, afraid, relieved, disappointed, surprised, and guilty. Consensus scoring was used and alpha values of .79 were obtained (Engelberg & Sjoberg, 2004). EIT was measured using a scale developed by Schutte et al. (1998; as cited in Engelberg & Sjoberg, 2004). Two hundred and eighty-two participants were assessed and results indicated that emotion perception was related to greater accuracy in the assessment of emotional reactivity (Engelberg & Sjoberg, 2004). They also found that successful social adjustment was related to more accurate perceptions of changes in other people's moods, which they contend supports the hypothesis that emotion perception is integral for success in social domains (Engelberg & Sjoberg, 2004). These findings provide support for the emotion perception component of EI, irrespective of whether it is assessed differently from more widely used EIA or EIT measures.

Puglia, Stough, Carter, and Joseph (2005) sought to complete a broad assessment of the emotional functioning of sex offenders, as such an assessment had not been done in the past. They assessed their EIA using the Perception, Assimilation and Management branches of the MSCEIT (Puglia et al., 2005). The researchers compared 19 sex offenders with 18 non-sex offending inmates and 19 controls. Results indicate that the group of sex offenders was not significantly different than the control group although the non-sex offender inmate group displayed the lowest branch scores of the three groups (Puglia et al., 2005). Interestingly, the results of this study indicated that the MSCEIT branches, Perception, Assimilation and Management, displayed a high level of internal consistency when administered to the offender populations, suggesting that it is a reliable tool in this context (Puglia et al., 2005).

Overall there are mixed findings with respect to branch components of EIA, as measured by the MSCEIT. Generally, Mayer and colleagues (2004) support the use of total scores rather than area and branch scores. As recently as 2005, Salovey and Grewal acknowledged that measurement obstacles continue to exist for the area in general and for the MSCEIT specifically. They noted that the field as a whole lacks a "thorough understanding of the underlying mechanisms by which emotion-related abilities affect relationships" and that research is needed to "understand the motivational underpinnings of using certain skills depending on the particular interpersonal context" (Salovey & Grewal, 2005, p. 285). They point out that individual temperament is likely to impact levels of arousal, thereby impacting the "application of emotionrelated skills" (p. 285). They also caution that careful consideration and greater understanding of contextual and motivational factors influencing the use of emotion-related skills needs to be in place before emotional intelligence training programs are instituted in an attempt to help address social problems such as obesity or school violence (Salovey & Grewal, 2005). These researchers

were refreshing, as they did not advocate for one type of emotional intelligence over another, as did Mayer, Roberts, and Barsade (2008); nor did they posit that emotional intelligence is a global susceptibility factor, which perhaps reaches past the current state of knowledge and understanding of the construct, as did Petrides, Perez-Gonzalez, and Furnham (2007). Instead they encouraged further research to understand the construct more clearly before turning it into the panacea for all human problems (Salovey & Grewal, 2005; p. 285).

In contrast to Salovey and Grewal (2005), who encourage continued research and moderation in terms of claims about the nature and utility of EI, Mayer, Roberts, and Barsade (2008) review three models of EI that they identify as having emerged since the construct began receiving serious academic attention in 1990 and support only two: Specific-ability EI and Intergrative-model EI. According to Mayer et al. (2008), Specific-ability approaches to EI are those that focus on a particular skill or skills that can be considered fundamental to EI. These include: Emotion perception and identification, that is, the ability to accurately identify emotions in faces; use of emotional information in thinking, that is, how to use emotions to facilitate thinking; reasoning about emotions, for instance, emotional appraisal, labelling, and language; and finally, emotion management, that is, emotional self-regulation.

Integrative-model approaches to EI are those that join several specific abilities such as those outlined above in order to obtain an overall sense of EI (Mayer et al., 2008). According to Mayer et al. (2008) these approaches include: Izard's Emotional knowledge Approach, which has as its measure Izard's Emotional Knowledge Test (Izard, 2001). This test asks participants to match emotions to situations (e.g., sadness to a best friend moving away) and also asks them to identify emotions in faces. In Mayer et al.'s (2008) view, this integrative approach to EI focuses on emotional perception and understanding. Izard sometimes refers to his approach as

emotional knowledge rather than emotional intelligence (Izard, 2001; as cited in Mayer et al., 2008).

The Four Branch Model of Emotional Intelligence (Mayer & Salovey, 1997; Salovey & Mayer, 1990) is another integrative approach, formerly referred to as ability-based EI. This model, the instrument currently used to measure the model (e.g., MSCEIT), and the limitations of that instrument have already been discussed in detail and will not be described again.

Mixed-model approaches to EI are not supported by Mayer et al. (2008) as viable representations of the construct, either in theory or measurement. According to them this approach assesses one or more EI attributes but then "to varying degrees mix in other scales" (p. 514) - of happiness, stress tolerance, self-regard, adaptability, impulsiveness, social competence, creative thinking, flexibility, and intuition. In their view, these approaches, which use as their measures self-report instruments such as the EQ-i (Bar-On, 1997); TEIQue (Petrides & Furnham, 2006) and others, "lack a primary focus on EI" (p. 514), which is not the case with the specificability and integrative-model approaches to EI, at least in their opinions. Despite their assertions that specific-ability and integrative-model approaches to EI measure the construct itself, they admit that there is evidence that various scales within these approaches "tap different sources of variance" (Mayer et al., 2008; p. 518). They acknowledge that the lack of correlations across tests is "both perplexing and troubling" and suggest that further studies of the scales used to assess these approaches are needed (Mayer et al., 2008). In spite of concerns about the measurement of all three approaches to EI, Mayer et al. (2008) conclude by stating that "EI is a predictor of significant outcomes across diverse samples in a number of real-world domains" (p. 527) and that EI "predicts social relations, workplace performance, and mental and physical well-being" often "over other measures of intelligence and socio-emotional traits" (p. 527).

As the ability to perceive emotions in faces has been found to be reliable in the EI literature (Mayer et al., 2004) and in other domains (Blair & Coles, 2000; Blair et al., 2001), and is considered a viable approach to measuring the emotion perception aspect of EI, this specificability approach to EI (Mayer et al., 2008) was utilized in this research.

Trait-based or Mixed Emotional Intelligence

Petrides and Furnham (2001) present an alternative view of emotional intelligence: Trait emotional intelligence (EIT), referred to by some as 'mixed model' EI. They define EIT as a constellation of emotion-related self-perceptions and dispositions located at the lower levels of personality hierarchies (Petrides & Furnham, 2001) and suggest that the means by which a construct is measured has important theoretical considerations. On this basis they advocate differentiating between ability-based EI, which is identified through the measurement of actual abilities during maximum performance, and trait EI, which is identified through the measurement of behavioural dispositions and self-perceived abilities through self-report (e.g., EQ-i; Bar-On, 1997). Petrides and Furnham (2001) argue that because EIT relates to behavioural tendencies and self-perceived abilities, its investigation should be conducted through a personality framework. They also suggest that since intelligence and personality are essentially independent domains, EIT should be related to personality, with some expectation of correlations to personality traits that are affect laden, such as extraversion and neuroticism, whereas EIA should be related to cognitive ability (Petrides & Furnham, 2001).

Petrides and Furnham (2001) also contend that a construct exploring individual differences in the ability to understand, process, and utilize affective information should be associated with personality dimensions reflecting positive and negative affectivity. Graziano and Tobin (1998) support the notion of EIT when they state that, "if socialization does influence

emotional experience and expression, then it must leave psychological residues... [that] appear as individual differences in acquired dispositions, such as habits, sets and attitudes" (p. 286). They suggest that longer lasting dispositions could be referred to as "personality characteristics" (Graziano & Tobin, 1998, p. 286). These authors also contend that the residue of emotional socialization would not be veridical, but more likely a "coordinated schematic representation of experience... that would ... be filtered through the existing cognitive structure at the time of socialization," thereby becoming part of personality structure (Graziano & Tobin, 1998; p. 286).

Petrides and Furnham (2001) explored the discriminant validity of EIT using the Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997). The EQ-i is a self-report measure with fifteen scales and five second-order factors loading onto a third-order factor labelled emotional intelligence. When the EQ-i was looked at in conjunction with the Eysenck Personality Profiler (EPPP; Eysenck, Barrett, Wilson, & Jackson, 1992; as cited in Petrides & Furnham, 2001), a scale comprised of 421 items, measuring 21 scales and three Eysenckian superfactors (psychoticism, extraversion, and neuroticism), "a clear trait EI factor emerged in Eysenckian factor space" (p. 425). On the basis of their results Petrides and Furnham (2001) state that it "appears that the second-order factors on the EQ-i ... constitute a redundant layer ... instead, a single-factor model with the 15 variables as indicators of one broad latent variable (full-scale trait EI) provides an adequate approximation of the data" (p. 436). Dawda and Hart (2000) also suggest that the EQ-i is best used as a single-factor model, rather than using the five second-order factors, which have very high zero-order correlations.

In order to strengthen their contention that emotional intelligence is best conceived of as a trait, Petrides and Furnham (2001) undertook a second study. This time they employed the NEOPI-R (Costa & McRae, 1992b; as cited in Petrides & Furnham, 2001) to measure the five-

factor model of personality, which includes extraversion, neuroticism, conscientiousness, agreeableness, and openness. They pursued this line of research because many personality theorists suggest that five dimensions are better at describing personality characteristics than are three. Petrides and Furnham (2001) contend that the results of their study "support the conceptualization of trait EI as a distinguishable, lower-order construct within the FFM [Five Factor Model]" (p. 441), thereby lending credence to EIT.

Despite their success at isolating EIT within two personality taxonomies, Petrides and Furnham (2001) stress that caution is warranted, as it was only isolated with "considerable difficulty" (p. 442). They also note that the range of discriminant validity for EIT as a construct separate from personality in general is "somewhat limited" on the basis of their findings and suggest that research should be conducted using the higher-order level of EIT, that is, full-scale scores (Petrides & Furnham, 2001). Of note, Petrides and Furnham (2001) do not contend that EIT and EIA are mutually exclusive; rather they contend that these constructs may co-exist.

Contrary to the conclusions arrived at by Petrides and Furnham (2001), Dawda and Hart (2000) opine that EIT is a viable construct. They conducted a study that examined the reliability and validity of the EQ-i (Bar-On, 1997) using a sample comprised of 243 university students. Their results indicate that the "EQ-i domain and component scales had good item homogeneity and internal consistency" (Dawda & Hart, 2000; p. 797). They found that the EQ-i scales had a meaningful pattern of convergent validities and they obtained similar results for men and women with respect to reliability and validity (Dawda & Hart, 2000). On the basis of their results, these authors concluded that the EQ-i is a promising measure of EIT (Dawda & Hart, 2000).

Palmer, Manocha, Gignac, and Stough (2003) also conducted a study of EIT using the EQ-i (Bar-On, 1997). These researchers questioned the factor analytic methodology employed

by Bar-On (1997) and his interpretation that his results indicate a hierarchical model of emotional and social intelligence with a general factor, five second-order factors, and 15 primary factors (Palmer et al., 2003). In order to address this issue, Palmer et al. (2003) conducted a series of exploratory and confirmatory factor analyses that found evidence for a general factor of EIT, as well as six primary factors (emotional disposition, interpersonal, impulse control, problem solving, emotional self-awareness, character). These findings provide support for the overall construct of EIT; however, the finding of a different factor structure underlying the construct supports the suggestion of others that total EQ-i scores may have more utility than the second-order and primary factors said to underlie it. It is important to note that these findings are taken into consideration with respect to the data analyses performed in this research.

The validity of the EQ-i (Bar-On, 1997) as measure of EIT has also been explored in an offender population (Hemmati, Mills, & Kroner, 2004). Results indicate that the EQ-i (Bar-On, 1997) has no relationship with age, a weak relationship with IQ, but strong negative correlations with measures of psychopathology, depression and hopelessness (Hemmati et al., 2004). Paradoxically, this study found that offenders as a group scored higher than non-offenders on the EQ-i (Bar-On, 1997). The authors suggest that a potential explanation for this finding is that offenders have a tendency to provide socially desirable responses, although they opine that this explanation is confounded by research that shows a significant negative relationship between socially desirable responding and risk to re-offend (Hemmati et al., 2004). Hemmati et al. (2004) suggest that this finding indicates that offenders would not bother to respond in a socially desirable way on the EQ-i, thereby rendering this explanation implausible. An alternative explanation is provided, which suggests that EQ-i (Bar-On, 1997) items may hold different meaning for offenders, thereby influencing their self-report. As this study represents the only

published study of EI and incarcerated offenders, it would seem that these paradoxical results warrant future attention.

Two recent papers by Petrides and colleagues (2007) illustrate how the empirical understanding of EIT continues to evolve. In the first of these two papers, Petrides, Perez-Gonzalez, and Furnham (2007) investigated the criterion and incremental validity of trait emotional intelligence, now also referred to as "trait emotional self-efficacy" (p. 26); they also wanted to highlight the generality of EIT theory across the proliferation of self-report EI measures that now exist. The researchers conducted three studies in order to satisfy their goals. The first study used the EQ-i (Bar-On, 1997) supplemented by an additional 15-item scale of emotional mastery; the NEO PI-R (Costa & McCrae, 1992); the Emotional Control Ouestionnaire Rehearsal Scale (Roger & Najarian, 1989), used to measure rumination; the Satisfaction with Life Scale (Diener et al., 1985); and the Coping Styles Questionnaire (Rogers, Jarvis, & Najarian, 1993). Results indicated that, as hypothesized, EIT was a reliable predictor of all criteria in the study. That is, they found that "most relationships were incrementally valid over the Big Five personality dimensions," even after partialling out all big five dimensions, with the exception of avoidance coping (Petrides, Perez-Gonzalez, & Furnham, 2007; p. 33). They also found that EIT has criterion validity, as it was positively associated with life satisfaction and two adaptive coping strategies - rational and detached; while being negatively associated with rumination and two maladaptive coping strategies - emotional and avoidance (Petrides, Perez-Gonzalez, & Furnham, 2007).

Petrides, Perez-Gonzalez, and Furnham (2007) conducted study two in order to, a) replicate their findings in study one; b) investigate the validity of a different EIT measure specifically designed to comprehensively cover the domain of the construct and, c) explore

theoretically relevant but hitherto unexplored relationships between EIT and other variables. The predictor measures used were the Trait Emotional Intelligence Questionnaire (TEIQue v. 1.00; Petrides & Furnham, 2003), which was constructed based on EIT theory; and the NEO PI-R. The criterion measures used were the: Coping Styles Questionnaire; the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977); the Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978); the Revised Self-Monitoring Scale (RSMS; Lennox & Wolfe, 1984); and the Aggression Questionnaire (AQ; Buss & Perry, 1992).

Petrides, Perez-Gonzalez, and Furnham (2007) reported that their hypotheses were supported. Specifically, they replicated their findings in study one; they found that EIT was a reliable negative predictor of depression and negative attitudes; and they found that EIT was a significant positive predictor of three self-monitoring variables - ability to modify selfpresentation; sensitivity to emotional expression; and global self-monitoring. Results were not as straightforward with regard to the relation between EIT and aggression, as they found that EIT was a negative predictor of physical aggression, anger, and hostility, but not verbal aggression. Moreover, when the Big Five was added to the hierarchical regression, EIT remained a significant negative predictor for hostility but not for anger. The researchers suggest that the lack of association between EIT and verbal aggression may be due to its similarity to assertiveness, which is a characteristic of high EIT individuals. Nonetheless, Petrides, Perez-Gonzalez, and Furnham (2007), did not offer a possible explanation as to why anger was no longer associated with EIT after the Big Five were taken into consideration. The author's final observation was that very low EIT may have psychopathological implications; this was the subject of their third study in this set.

Petrides, Perez-Gonzalez, and Furnham (2007) stated that the goal of study three was to "examine the criterion and incremental validity of trait EI in relation to both new variables and a new baseline, substituting the Big Five with the two basic dimensions of mood 'positive and negative affectivity" (p. 40). They used the TEIQue v. 1.00; the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1989); the Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996); and the International Personality Disorder Examination (IPDE; Loranger, Janxa, & Sartorius, 1997). Results were numerous, as with the previous studies, but in brief included: consistent findings as in study two with respect to depression - that is, EIT is a negative predictor of depression. EIT was also a statistically significant predictor of personality disorders (PD) (paranoid, schizoid, schizotypal, borderline, dependent, and avoidant). EIT approached, but did not gain significance as a predictor for antisocial or obsessive-compulsive personality disorders. EIT was also a statistically significant negative predictor of psychosis and neurosis. The authors suggest that EIT may have an "important diagnostic role to play in relation to virtually all PDs" (Petrides, Perez-Gonzalez, & Furnham, 2007; p. 44). Moreover, they suggest that low EIT can be seen as a "global susceptibility factor, predisposing individuals to a range of mental abnormalities" (Petrides et al., 2007; p. 44), whose "effects are not only stronger than those of affectivity, but also broader, contributing to the aetiology of mental disorders that are only partially related to emotional malfunctioning" (p. 44). In their view, global susceptibility factors, of which they purport EIT is one, can not only account for the comorbidity issues in the diagnosis of personality disorders, but can also be useful in identifying common aetiologies. They do acknowledge that global susceptibility factors are not sufficient to explain the "wide range of disorder-specific symptomatology, which limits their applicability in

treatment contexts" (Petrides, Perez-Gonzalez, & Furnham, 2007; p. 47); but suggest that there are broad implications for the continued study of EIT, especially in clinical settings.

The location of EIT in personality space was the topic of Petrides, Pita, and Kokkinaki's (2007) paper. Petrides has published on the topic in the past (Petrides & Furnham, 2001); however, in this newest research, the TEIQue v. 1.00 (Petrides, 2001) rather than the EQ-i (Bar-On, 1997) was used. The researcher's intent in study one was to determine the location of EIT in Eysenckian and Big Five factor space. Their results indicate that EIT is a compound personality construct located in the lower levels of the two taxonomies (Petrides, Pita, & Kokkinaki, 2007). In their second study in this series, the researchers investigated the incremental validity of EIT in predicting, over and above the Giant Three and the Big Five personality dimensions, six criteria - life satisfaction, rumination, and two adaptive and two maladaptive coping styles. Results indicate that EIT predicted four of the six criteria over the Giant Three and five of the six over the Big Five (Petrides, Perez-Gonzalez, & Furnham, 2007). They conclude that as a consequence, EIT is a "useful explanatory variable over and above personality characteristics, because it captures individual differences in affective self-evaluations and organizes them into a single framework, thus integrating the emotion-related facets that are presently scattered across the basic personality dimensions" that is a useful "operationalization of emotion-related selfperceptions that can be integrated into the mainstream taxonomies of personality" (Petrides, Perez-Gonzalez, & Furnham, 2007; p. 287).

In 2008, Smith, Heaven, and Ciarrochi published an article in which they used Petrides and Furnham's (2006) Trait Emotional Intelligence Questionnaire – Short Form (TEIQue – Short Form). In their study, Smith et al. (2008) examined EIT, conflict communication patterns and relationship satisfaction in cohabitating heterosexual couples. The measures utilized in their

study include the: The TEIQue – Short Form, which provides a global EIT score and reportedly has been shown to have adequate reliability and validity (Petrides & Furnham, 2006); The Communication Patterns Questionnaire (Christensen & Sullaway, 1984), and the Perceived Relationship Quality Questionnaire Inventory (Fletcher, Simpson, & Thomas, 2000).. Their findings revealed that most satisfied couples were those who discussed relationship difficulties rather than avoiding them, rated their partners as being high in EI and perceived themselves as having similar levels of EI to their partners.

On the basis of the studies reviewed herein, it appears that there is sufficient evidence of trait-based or mixed emotional intelligence for it to warrant further research attention, despite the assertions of Mayer et al. (2008) that this approach is not assessing the pure construct of EI. Of the self-report measures available, the EQ-i (Bar-On, 1997) has received the most research attention and at the very least total score has been found to be a valid and reliable indicator of EIT. As such, it is this instrument that was employed to assess EIT in this research. Summary of Trait-based Versus Ability-based Emotional Intelligence Findings

At this juncture, it appears that there is sufficient evidence to support the existence of both EIT and EIA, although as already discussed, there are some researchers who argue against EIT or mixed-model EI as a viable approach to EI (Mayer et al., 2008). There are however, sufficient questions about the measurement of both EIT and EIA to warrant caution in conducting research in the area and to support the use of both ability-based or specific-ability measures and trait-based measures.

Research by Brackett and Mayer (2004) considered the convergent, discriminant and incremental validity of both the MSCEIT (Mayer, Salovey, & Caruso, 2002) and the EQ-i (Bar-On, 1997) and found that the measures are "weakly related" (p. 1147), as would make sense

given their distinct definitions. In line with this, they found that the MSCEIT was more distinguishable from well-being scales and the Big Five than was the EQ-i. In terms of incremental validity, they found that the MSCEIT was predictive of social deviance, while the EQ-i was predictive of alcohol use (Brackett & Mayer, 2004).

Overall, Brackett and Mayer (2004) agree that there appear to be two general models of EI, one they refer to as a mental ability model (EIA) and the other they refer to as a mixed model, but which others have referred to as trait EI (EIT). They do however, continue to contend that EIA is a truly separate construct, whereas mixed models of EI or, as it is referred to by others, trait-based EI, is "misleading ... [because it] combines diverse traits such as common sense, well-being, and good interpersonal skills" (Brackett & Mayer, 2004, p. 1157).

Petrides et al. (2007) support the notion of two forms of EI, one ability-based and the other trait-based. As the existence of two complementary means of measuring EI made intuitive sense to this researcher, this study incorporated measures of both conceptualizations of EI using the EQ-i (Bar-On, 1997) to measure EIT (or mixed model EI) and 28 micro facial expressions of people displaying the seven universal emotions (e.g., fear, anger, sadness, happiness, surprise, disgust, and contempt) as an objective measure of EIA (or specific-ability EI).

Emotional Intelligence and Relationship Conflict

Emotional intelligence and relationship quality was studied by Brackett, Warner, and Bosco (2005). The researchers recruited 86 participants from psychology classes at a large Eastern US university. Students were eligible to participate if they were in a relationship for at least three months and their partners were willing to take part. EIA was measured with the MSCEIT (Mayer, Salovey, & Caruso, 2002) and relationship quality was measured with the Quality of Relationship Inventory (QRI; Pierce, Sarason, & Sarason, 1991). The QRI contains

29-items that divide into three scales: support, depth, and conflict. The researchers hypothesized that each partner's EI would be associated with his or her own relationship quality and his or her partner's relationship quality; they also predicted that couples in which both partners were low in EI would report lower quality relationships, while couples in which at least one partner was high in EI would report higher quality relationships. Contrary to their expectations, only one of their predictions was supported: couples in which both partners were low in EI did report significantly poorer quality relationships than did couples in which at least one or both partners were high in EI. Brackett et al. (2005) did not replicate previous findings of gender differences in reports of EI or relationship quality, although there were differences on the subscales, with females reporting higher depth and support scores and males reporting higher conflict scores. Brackett et al. (2005) hypothesize that when gender differences are found in EI it may be related to parenting styles experienced by the participant and to gender role socialization.

While other studies have been done on EI and general relationship quality, as has been previously mentioned, only two studies to date (Swift, 2002; Winters et al., 2004) have examined the relation between EI and relationship conflict. Both studies were very specific in that they involved men who had been convicted of domestic violence. Swift (2002) found that, contrary to his expectations, domestically violent men with higher levels of EI did not evince lower levels of interpersonal violence. He did not use a comparison group, so could not compare EI scores from his domestically violent participants with another group. Winters et al. (2004), on the other hand, did use a comparison sample and found that in keeping with their expectations, domestically violent men had lower EIT scores in comparison to community or university samples. Their findings are in keeping with a conceptualization of domestic violence as an extreme form of relationship dysfunction.

Previous research findings regarding domestically violent men are also logical when looked at in the context of EI. For instance, (Rosenbaum & O'Leary, 1981; as cited in Winters et al., 2004) found that abusive men lack assertiveness because they are deficient in the skills and confidence required to express their needs verbally. As a result they may use intimidation and aggression to obtain what they want (Fanlk, 1977; as cited in Winters et al., 2004). Dutton, Saunders, Starzomski, and Bartholomew (1994) found that abusive males are insecurely and fearfully attached to their intimate partners. As a result they experience high levels of anxiety, which they are unable to regulate themselves. Unable to regulate these emotions, the abusive male expects his partner to assuage his anxiety, however, she, unaware of his feelings, due to his inability to communicate them to her, is unable to help. Disappointed and lacking insight into these issues, the abusive male may act out violently as a result (Dutton et al., 1994). These findings and others are consistent with low EI, which was born out in the research of Winters et al. (2004); however, maladaptive relationship conflict does not just occur in overtly abusive relationships such as those of domestically violent men and their partners. On this basis, the research described herein looked more generally at maladaptive relationship conflict than has been done (e.g., Swift, 2002; Winters et al., 2004) by using a community-based sample of both men and women, but more specifically than what has been done in terms of EI and quality of social relationships (e.g., Lopes et al., 2003), by looking at EI in the context of relationship conflict.

In the present study, the Revised Conflict Tactics Scale (CTS2; Straus, 1996/2004) was chosen to measure relationship conflict, as it provides a continuum of conflict resolution tactics from functional (negotiation) to dysfunctional (psychological aggression, physical injury, physical assault, sexual coercion). This measure has been widely used in university samples

(Perry & Fromuth, 2005; Straus, 2004), as well as other populations (e.g., Dutton, 1994) and is well validated and reliable.

Emotional Intelligence and Psychopathy

It is only recently that the relation of EI to psychopathy has been researched (Malterer, Glass, & Newman, 2008), despite substantial empirical support from other areas of psychopathy research that supports Cleckley's (1976) claim that those evincing psychopathic traits have a "peculiar incapacity to function successfully despite good intelligence: (Malterer et al., 2008; p. 736). While psychopathy, as measured by Hare's (2003) PCL-R is not correlated with intelligence, those individuals identified as being psychopathic on the basis of the PCL-R demonstrate a wide range of maladaptive social behaviours that lead to high incarceration rates and other negative consequences (Moriarty, Stough, Tidmarsh, Eger, & Dennison, 2001). In the absence of intellectual deficits, researchers often attribute these maladaptive behaviours to deficient emotional processing and laboratory research appears to support this contention. For instance, Newman and Lorenz (2003) found psychopathy related failures to attend to and make use of emotional stimuli. Others (Newman, Patterson, & Kosson, 1987) found that psychopaths have difficulty altering a dominant response set for reward in the face of growing punishments, while Blair, Mitchell, Peschardt, Colledge, Leonard, and Shine (2004) found that psychopathic individuals have problems discriminating amongst the affective aspects of words and faces and Kosson, Suchy, Mayer, and Libby (2002) found that psychopaths are deficient in recognizing disgust.

Given the paucity of published research on psychopathy and EI, Malterer et al. (2008) decided to explore the association between psychopathy, as measured by the Psychopathy Checklist – Revised (PLR-R; Hare, 2003), and trait Emotional Intelligence (EIT), as measured

by the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). In Malterer et al.'s (2008) view there is an "intuitive connection between psychopathy and EI" (p. 736) and "potential utility of the EI framework for clarifying psychopathic behaviour" (p. 736), therefore they chose to examine the association between the PCL-R and three dimensions of EI identified by Salovey and Mayer (1990) as follows: "the inclination to allocate attention to one's feelings, the ability to repair one's mood, and clarity in discriminating affective states" (italics in original; p. 736). Malterer et al. (2008) found a similarity between Salovey and Mayer's (1990) dimensions and a previously devised model of psychopathy called the Response Modulation (RM) model of psychopathy (Newman & Lorenz, 2003). This model posits that psychopathic individuals are lacking in their ability to apportion information processing attention, thereby missing emotional cues that are outside their primary focus of attention (Newman & Lorenz, 2003). The RM model contends that there is evidence that once a psychopathic individual perceives a situation in a particular way, they have difficulty processing information that is not in keeping with their existing attentional set (Newman & Lorenz, 2003). In summary, the RM model predicts that psychopathic individuals will allocate less attention to emotional cues to begin with, and once they do attend to these cues, they will have difficulty altering their emotional response set which, Malterer et al. (2008) opine, corresponds to the attention and repair dimensions of EI described by Salovey and Mayer (1990), and which they sought to explore in the study described below.

Participants for the study were 439 adult Caucasian male inmates incarcerated in Wisconsin state prisons. Participants described as low-anxious psychopathic individuals had significantly lower scores on the TMMS Repair and Attention dimensions of EI as compared to controls. Consistent with previous suggestions regarding PCL-R factors, the EI deficits found

related to different aspects of the psychopathy construct (Malterer et al., 2008). It was found that correlations revealed significant inverse associations between PCL-R factor 1 and Attention and PCL-R factor 2 and Repair (Malterer et al., 2008) suggesting that the multi-dimensional EI framework affords a complementary perspective of laboratory based explanations of psychopathy (Malterer et al., 2008). Malterer et al. (2008) note that these findings are consistent with previous studies that looked at EI and psychopathology (Lieble & Snell, 2004; Petrides, Perez-Gonzalez, & Furnham, 2007; as cited in Malterer et al., 2008), both of which found that trait EI was significantly and negatively associated with antisocial personality disorder which, although distinct from psychopathy, overlaps with it.

Hastings, Tangney, and Stuewig (2008) investigated the association between psychopathy and the identification of facial expressions of emotion. The researchers did not refer to the identification of facial expressions as 'Specific-ability EI' as would Mayer et al. (2008); however, identification of facial expressions is one such ability-based EI task. The study involved 145 male inmates who were administered the Psychopathy Checklist Screening Versions (PCL-SV; Hart, Cox, & Hare, 1995; as cited in Hastings et al., 2008) and then shown faces containing one of: happiness, sadness, fear, anger or shame, at two levels of intensity (100% or 60%) (Hastings et al., 2008). The authors predicted that higher levels of psychopathy would be associated with decreased affect recognition, particularly for sad and fearful expressions. They also predicted that psychopaths would be less able to identify emotions when presented with the 60% intensity expression. The study results were consistent with researcher's expectations: psychopathy was negatively correlated with overall recognition of facial affect; with sad facial affect; and with less intense displays of facial affect. Unexpectedly, they also found that there was a negative correlation between psychopathy and happy facial expressions

(Hastings et al., 2008). Hasting et al. (2008) noted that there was "significant participant confusion concerning fearful versus surprised facial expressions as participants overwhelmingly misidentified fearful facial expressions with surprised facial expressions" (p. 1481). The researchers speculated what their results might have been if 'surprise' had been included as a choice when viewing the facial expressions, which did not include a surprised face. Explanations for these deficits referenced two emotion based models of psychopathy found in the literature. The oldest is the low-fear model (Lykken, 1957; as cited in Hastings et al., 2008), which posits that psychopaths have difficulty effectively processing threat or punishment cues resulting in poor socialization. Given that anger and fear are considered cues of threat (Whalen, 1998; as cited in Hastings et al., 2008), this model suggests that psychopaths would have difficulty recognizing facial expressions of anger and fear; however, this theory was not supported by the current findings (Hastings et al., 2008). A more recent model, the Violence Inhibition model (VIM: Blair, 1995; Blair et al., 2001; as cited in Hasting et al., 2008)) posits that psychopathy arises from a failure to develop appropriate responses to submission cues due to socialization deficits, including a lack of empathy. This model suggests that psychopaths should have problems identifying fearful, sad and shameful facial expressions. The findings from Hastings et al.'s (2008) study are partially supportive of this model, in that participants had difficulties with sad expressions; however, they did not have difficulties with angry or shameful expressions, and had difficulties with happy expressions, neither result of which is in keeping with the model. Given that their results were not supportive of either model described, Hastings et al. (2008) suggested that the clinical belief that psychopaths have a "general poverty or absence of affect" (p. 1481) is more in line with their findings and they suggest continued

research in the area given their unexpected results and the divergent results of other researchers on the topic.

While psychopathy and EI has not received much research attention to date an article was found on a related topic: psychopathy and Machiavellianism (Austin, Farrelly, Black, & Moore, 2007). These researchers considered the possibility that EI could be related to "negative as well as positive outcomes" (Austin et al., 2007; p. 180); for instance, by "an individual making use of high-level capabilities to read and manage the emotions of others to manipulate their behaviour to suit that individual's interests" (Austin et al., 2007; p. 180). Austin et al. (2007) note that the possibility of emotional manipulation and anti-social behaviour has been a neglected area of study in the EI field, although Carr (2000) argued that the value of EI is "dependent on the moral end which it serves" and that "something is not always clearly distinguishable from emotional intelligence – emotional cleverness or cunning" (Carr, 2000; p. 31). These speculations about the possible nefarious uses of EI provide support for Swift's (2002) speculative explanation that his unanticipated finding that men who had higher levels of EI did not have lower levels of interpersonal violence, especially in the category of psychological aggression, may be due to negative use of their EI.

Austin et al. (2007) set out to examine the question of whether there is a "potential manipulative/dark side of EI" (p. 180). The Bar-On EQ-i (1997) was used as a measure of EIT and the MSCEIT (Mayer, Salovey, & Caruso, 2002) was used to measure EIA. The International Personality Item Pool (IPIP; Goldberg et al., 2006; as cited in Austin et al., 2007) was used to assess the Big Five personality factors and the Mach IV (Christie & Geis, 1970; as cited in Austin et al., 2007) was used to assess Machiavellianism (Mach). Austin et al. (2007) conducted two studies: In study one they hypothesized that Mach would correlate negatively

with overall EI scores and with Agreeableness and Conscientiousness. Study two was an exploration of the notion of emotional manipulation. This was accomplished through the construction of a scale to assess emotional manipulation, which was then used to examine its associations with personality, Mach and self-report EI (EIT).

Results from study one were as expected - EI and Mach were negatively correlated. They suggest that Mach is not the appropriate measure for emotional manipulation, noting that this is not something specifically targeted in either measure of EI (Austin et al., 2007). To address this issue, Austin et al. (2007) conducted study two. This second study also confirmed that Mach is negatively correlated to EIT and EIA. Factor analysis of the emotional manipulation scale that was produced as part of study two revealed that it was positively related to Mach, but was unrelated to EI; hence Machiavellianism does not appear to explain emotional manipulation, at least as studied to date.

Given that affective and interpersonal deficits are seen as the core features of psychopathy by the majority of researchers (e.g., Hare, 1991/2003), EI may be informative in several ways when it comes to understanding psychopathy. For instance, EI may differ from one 'type' of psychopath to another, with primary psychopaths evincing a greater EI deficit than secondary psychopaths. If this is the case, EI could be a valuable tool in forensic contexts, both in terms of refining treatment and for determining who would benefit from treatment. This possibility has been identified in the context of EI and sex offenders (Puglia et al., 2005); however, psychopathy did not form part of their study.

Psychopathy and Relationship Conflict

The relation between psychopathy and violence has been extensively studied, primarily with offender populations. Psychopathy and aggression in community-based samples has also

been studied, but not as extensively. Reference to psychopathy and relationship conflict in the specific context of a romantic relationship in a non-offender sample was found in one study; the unpublished dissertation research of Warkentin (2008).

Coyne and Thomas (2008) examined the associations between primary psychopathy (e.g., those psychopathic individuals who show low levels of anxiety, empathy, fearfulness, and emotion) and secondary psychopathy (e.g., those psychopathic individuals that show more impulsiveness, anxiety, empathy, and guilt), cheating behaviour (i.e., academic cheating), indirect aggression or relational aggression, and direct aggression in a university student sample in an effort to test the hypothesis that the Cheater-Hawk hypothesis explains the use of aggression and cheating in psychopaths. The Cheater-Hawk hypothesis is comprised of two hypotheses: The Cheater hypothesis, which is proposed to explain the manipulative and cheating behaviour of psychopaths (Book & Quinsey, 2004; as cited in Coyne & Thomas, 2008) and the Warrior Hawk hypothesis, which attempts to explain aggression in psychopaths. Book and Quinsey (2004; as cited in Coyne & Thomas, 2008) found that both hypotheses must be used to explain the behaviour of psychopaths, as psychopaths are likely to cheat and use aggression to accomplish their goals. Coyne and Thomas (2008) found that primary psychopathy was associated with cheating behaviour, and indirect and direct aggression, whereas secondary psychopathy was associated with direct aggression thereby providing partial support of Book and Quinsey's (2004; as cited in Coyne & Thomas, 2008) Cheater-Hawk hypothesis. These findings may have implications for the current study, as the CTS2 measures both indirect aggression (e.g., psychological aggression) and direct aggression (e.g., sexual coercion, physical aggression, and physical injury).

Falkenbach, Poythress, and Creevy (2008) explored the associations between subclinical psychopathic subtypes (e.g., primary versus secondary psychopaths) and types of aggression (e.g., instrumental aggression versus hostile or reactive aggression) in a university sample. Their findings indicated that those with primary psychopathic-like traits use more instrumental aggression whereas those with secondary psychopathic-like traits use more hostile or reactive aggression (Falkenbach, Poythress, & Creevy, 2008). This finding may relate to Swift's (2002) finding that as domestically assaultive men's ability to "manage others' emotions increases so does the frequency of moderate psychological aggression and severe IPV (interpersonal violence)" (p.79) and may have bearing on the current study.

The only study found that looked at aggression in the context of a dating relationship and incorporated psychopathy as one of the variables of interest was Warkentin's (2008) unpublished dissertation research. Her study was designed to test a modified model of sexual aggression, verbal abuse, and physical violence in dating relationships. Her sample was comprised of 514 college men and she used the CTS, the precursor to the CTS2 employed in this study. One of her aims was to identify which predictor variables could differentiate between sexual versus verbal versus physical violence; which could predict who would engage in one or more forms of aggression; and which could predict who might engage in all three forms of violence. She found that the misuse of alcohol was most predictive of all three forms of violence, while several variables, including adolescent delinquency, problem drinking, hostile attitudes towards women, and psychopathy, were able to differentiate between men who engaged in various forms of violence. With respect to psychopathy she found that men with no history of sexual aggression endorsed significantly fewer items indicating psychopathy than did men with a history of sexual aggressive contact or a history of rape or attempted rape. Similarly, those with no

reported history of verbal abuse reported significantly lower levels of psychopathy than those with a history of moderate or severe verbal abuse. Finally, those men with a history of moderate physical violence endorsed significantly more characteristics of secondary psychopathy than did those with no history of physical violence (Warkentin, 2008). Again, these findings may have relevance to the current study as she also considered psychopathy as a risk factor for sexual assault each of which are variables under examination in this study.

These 2008 studies are cited here as they all examined the associations between psychopathic traits and aggression, as does the current study. While psychopathy is not as prevalent in a community sample as in a forensic sample, it has been successfully studied in this realm in the past (e.g., Warkentin, 2008). The availability of a self-report measure such as the Self-report Psychopathy Scale III (SRP-III; Williams, Nathanson & Paulhus, 2003), which appears to adequately map onto psychopathy as conceptualized by Hare's (2003) four-facet model makes the exploration of psychopathy in relation to EI viable.

Emotional Intelligence and Childhood Maltreatment Experiences

It is only very recently that EI and developmental precursors such as childhood maltreatment, either witnessed or experienced, have been investigated (O'Sullivan, 2005). Early findings suggest that a family environment which exposes a child to chaos by way of an alcoholic parent or parental domestic violence may, in some children, increase their EI. O'Sullivan (2005) has coined the term 'Wizard' to communicate how adept these individuals are at detecting emotional micro-expressions. She theorizes that Wizards' childhood environments may have primed them to recognize other's emotional states. This study sought to extend our understanding of the relationship between early adversity and EI, particularly with respect to relationship conflict, as research with domestically abusive men indicates that a proportion of children who witness or experience familial violence go on to perpetrate it themselves, a finding contrary to that obtained by O'Sullivan (2005). 'Childhood maltreatment experiences' is a global reference to any number of childhood experiences that would generally be deemed dysfunctional and potentially harmful. A full range of experiences were assessed and were considered as possible developmental precursors of both EI and psychopathy.

Childhood Maltreatment Experiences and Relationship Conflict

Many studies have been done on the intergenerational transmission of abuse or violence; however, results remain inconclusive. Supporting the contention that violence witnessed or experienced in childhood begets violence in adulthood, either towards offspring or intimate partners, are studies by Bernard and Bernard (1983), Caulfield & Street (2000), Kaura and Allen (2004), O'Keefe (1998), Stith, Rosen, Middleton, Busch, Lundeberg, and Carlton (2000), and Sugarman and Hotaling (1989).

Bernard and Bernard (1983) found that 73% of male undergraduate students who were physically violent towards an intimate partner had experienced or witnessed violence in their families of origin; this in comparison to 32% of a sample of non-violent men who went on to perpetrate violence towards a partner. In a similar vein, Sugarman and Hotaling (1989) found that men who had experienced violence early in childhood were more likely to perpetrate minor forms of physical violence than verbal abuse.

O'Keefe (1998) examined both protective factors and risk factors to help determine what factors may mediate the relationship between witnessing parental violence and experiencing or perpetrating dating violence. She found that males who witnessed high levels of parental violence and who went on to perpetrate intimate partner violence were distinguishable from those who did not perpetrate intimate partner violence by several factors, including: low SES,

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exposure to community violence, and acceptance of violence in dating relationships. Acceptance of violence in dating relationships and low SES distinguished males who were the recipients of dating violence versus those who were not. Females who witnessed high levels of parental violence and went on to inflict violence in dating relationship were distinguished from those who did not by exposure to community violence, poor school performance, and experiencing child abuse; while those who experienced dating violence were distinguished from those who did not by poor school performance and experiencing child abuse (O'Keefe, 1998).

Kaura and Allen (2004) considered the associations between participants' dissatisfaction with the level of power they had in their dating relationships, the parental violence they experienced in their childhoods, and their perpetration of intimate partner violence. The sample was comprised of 352 undergraduate males and females who completed the CTS2 and the Relationship Power Scale. Results indicated that while relationship power was associated with the use of violence in dating relationships for both men and women, witnessing parental violence was a stronger predictor of perpetrating dating violence (Kaura & Allen, 2004). Interestingly, they found that males' perpetration of dating violence was related to mothers' violence, while females' perpetration of dating violence was related to fathers' violence (Kaura & Allen, 2004). These results indicate the importance of gender in the study of dating violence, something that will be taken into account in this study.

Conclusion

Although research has been done on the individual variables comprising this study, in some cases there is little or no research between the predictive variables on their own and the outcome variable, or between the predictive variables themselves, warranting further study of the possible associations between them, especially in a community-based sample of both men and

women. Additionally, this is the first study to explore the utility of a model predicting relationship conflict on the basis of the predictive variables. In particular, little attention has been paid to the developmental precursors of EI, such as CME or psychopathy, for much attention continues to be given to what exactly constitutes the construct of EI: What 'approach' is most valid? Does more than one approach contribute to our understanding of this construct? Which method of measurement is most reliable and valid? For some, the question remains: Is EI really a construct? This study was conducted in the hope that new avenues of inquiry could be spawned and some light shed on a largely neglected area of EI research, especially in conjunction with CME and psychopathy. Although exploratory in nature in the big picture, the associations between these variables and a possible model predicting relationship conflict may yield new avenues of inquiry and, more importantly, new areas of intervention with respect to the prediction, prevention and treatment of those vulnerable to perpetrating relationship conflict.

CHAPTER THREE:

RESEARCH DESIGN AND METHOD

Research Design

This study utilized a quantitative non-experimental approach to understand the relations between childhood maltreatment experiences, EI – ability and trait, psychopathy, and relationship conflict in dating relationships. The study aims and proposed analyses are discussed in a section following the methods section.

Recruitment

One hundred and ninety seven participants were recruited through the use of 'network sampling' and advertising on the Internet. Network sampling involves a researcher identifying an initial group of potential participants through his/her personal network of friends and acquaintances. A copy of the initial email sent to the researcher's network is included as Appendix A. Subsequent potential participants were obtained by requesting that the first string in the network forward information about the study to individuals in their personal networks that may be interested in participating, and so on after that. This method of sampling has gained popularity and is frequently used especially when a community based sample is desired. In addition to network sampling, advertisements were posted in the 'volunteer' section of Craig's List, a well known internet based classified site that services major metropolitan areas around the world. For purposes of this study, advertisements, an example of which can be found in Appendix B, were placed in major Canadian cities (Vancouver, Calgary, Edmonton, Toronto, Montreal, Halifax), the USA (New York, Boston, Los Angeles, San Francisco, Seattle), the United Kingdom (London, Dublin), Europe (Sweden), and Australia (Sydney). Advertising for research participants on Craig's List has become a common means of finding potential participants for studies, both online studies and more traditional studies.

Advertisements were also posted on Facebook and on the International Child Abuse Network (www.yesican.org), a web-based organization chosen due to the goodness of fit between those individuals that may be attracted to the site based on their personal experiences and the nature of the study. Potential participants garnered through advertisements on the Internet were asked to contact the researcher for additional information. When an email from a potential participant was received by the researcher, a modified version of the email sent to network sampling potential participants was sent to the interested party with all the pertinent information to allow their confidential participation. An example of such an email is found in Appendix C. Judging from emails received by potential participants seeking information about the study, the majority of participants solicited via the Internet came from the Craig's List advertisements.

Remuneration

Participants were offered a complimentary emotional intelligence assessment upon completion of the study. The approximate value associated with such an assessment is \$25. <u>Participants</u>

Adults age 18 and older were eligible to participate in the study, with the only inclusion criterion being that they had experienced a romantic relationship at some point in their life. Participants were not required to take part with their romantic partner, but were asked to provide information about their partner's (or former partner's) behaviour as part of the study protocol. To ensure anonymity, names and other identifying information (e.g., birth date, social insurance number, address, and telephone number) were not gathered. While email addresses were

obtained by the researcher due to the means by which information about the survey was disseminated, the email addresses were not linked in any way to the subsequent participation in the online survey by interested parties, as they were provided with links and were then free to participate or not, with there being no means for the researcher to 'match' participants who completed the study with those who had expressed an interest in participating. Demographic information about the participants follows.

Participants included 197 respondents, 130 (66%) identified themselves as females and 67 (34%) identified themselves as males. The majority (81.7%, N = 161) of participants identified as Caucasian while 3% (N = 6) identified as Asian. Participant ages ranged from 18-78 (M = 36.67, SD = 13.98). The majority (56.9%, N = 112) of participants reported that they were born in Canada, 18.8% (N = 37) reported being born in the USA, and 4.1% (N = 8) reported that they were born in the United Kingdom. Place of birth is presented in Table 1.

| Tabl | e 1 |
|------|-----|
| | |

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|------------------|-----------------------|
| Valid | Canada | 112 | 56.9 | 56.9 | 56.9 |
| | USA | 37 | 18.8 | 18.8 | 75.6 |
| | United Kingdom | 8 | 4.1 | 4.1 | 79.7 |
| | Western Europe | 10 | 5.1 | 5.1 | 84.8 |
| | Eastern Europe | 5 | 2.5 | 2.5 | 87.3 |
| | Mexico | 2 | 1.0 | 1.0 | 88.3 |
| | Central America | 1 | .5 | .5 | 88.8 |
| | South America | 3 | 1.5 | 1.5 | 90.4 |
| | Africa | 1 | .5 | .5 | 90.9 |
| | India | 4 | 2.0 | 2.0 | 92.9 |
| | Hong Kong | 5 | 2.5 | 2.5 | 95.4 |
| | Taiwan | 1 | .5 | .5 | 95.9 |
| | Korea | 1 | .5 | .5 | 96.4 |
| | Other | 7 | 3.6 | 3.6 | 100.0 |
| | Total | 197 | 100.0 | 100.0 | |

Place of Birth

The majority of participants (73%, N = 143) reported living in Canada, while 19.4% (N = 38) reported living in the USA, 6.6% (N = 13) in the United Kingdom, 0.5% (N = 1) in Western Europe and 0.5% (N = 1) in other locations. The majority of respondents (92.3%, N = 180) reported living in their countries for more than five years, while 5.1% (N = 10) reported that they had been living in their countries 3-5 years, 2.1% (N = 4) for 1-3 years, and 0.5% (N = 1) for less than one year.

In terms of educational attainment, 5.1% (N = 10) of participants reported that they had less than 12 years of education, 15.7% (N = 31) stated they were high school graduates, while 0.5% (N = 1) reported that they had completed some college, 23.4% (N=46) had completed a trade program or a two year college diploma, 31.5% (N=62) had completed some university or an undergraduate university degree, while 23.9% (N=47) had completed an advanced degree. Educational attainment is presented in Table 2.

Table 2

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---|-----------|---------|------------------|-----------------------|
| Valid | Less than grade 12 | 10 | 5.1 | 5.1 | 5.1 |
| | High school graduate | 31 | 15.7 | 15.7 | 20.8 |
| | Some college | 1 | .5 | .5 | 21.3 |
| | Trade or College diploma (i.e., 2 year program) | 46 | 23.4 | 23.4 | 44.7 |
| | Some university | 26 | 13.2 | 13.2 | 57.9 |
| | University graduate (e.g., B.A., B.Sc., etc) | 36 | 18.3 | 18.3 | 76 .1 |
| | Masters or professional degree (e.g., lawyer, accountant, engineer) | 36 | 18.3 | 18.3 | 94.4 |
| | Ph.D. or equivalent (e.g., dentist, MD) | 11 | 5.6 | 5.6 | 100.0 |
| | Total | 197 | 100.0 | 100.0 | |

Educational Attainment

The majority of participants identified their sexual preference as heterosexual (90.4%, N = 178), while 5.6% (N = 11) stated that they are homosexual, and 4.1% (N = 8) reported being bisexual.

Approximately 18% (N = 35) of participants reported being in a romantic relationship for less than one year, 19.3% (N = 38) said they were in a relationship 1-2 years, 10.2% (N = 20) 2-3 years, 9.1% (N = 18) 3-5 years, and 43.7% (N = 86) reported being in a relationship for more than five years. Length of time involved in the romantic relationship they based their responses on is presented in Figure 1.



Figure 1. Length of Time Involved in Romantic Relationship

<u>Measures</u>

Childhood Maltreatment Interview Schedule Short Form (CMIS-SF; Briere, 1992) (Appendix D). The CMIS-SF originally consisted of 11 multifaceted questions about childhood maltreatment experiences. Although this measure has been widely used, Briere (2004) – the creator of the scale - is unaware of any study that has assessed its reliability or validity. Briere (2004) indicates that this is due to the fact that the items simply ask about potential maltreatment experiences, are not summed to form scales, and can be used by researchers in multiple ways according to their need, thereby rendering assessments of its reliability and validity unnecessary. The CMIS-SF was chosen to assess childhood maltreatment experiences because it is a well-constructed measure that addresses most areas of interest in this realm relevant to this study. The measure was augmented to incorporate more subtle forms of maltreatment, such as having an alcoholic parent, being involved in a 'triangulated' or inappropriate relationship with parental figures, and witnessing family violence. The CMIS-SF is self-explanatory and was administered online; it takes between 5 and 7 minutes to complete. For purposes of data analysis participants' objective 'yes' or 'no' responses to whether or not they had experienced physical abuse or sexual abuse were used to comprise the CME variable, as the remaining questions were thought to be too subjective to determine accurately whether the experience was abusive or not. The additional information collected regarding participants' childhood experiences was used for descriptive purposes rather than to determine if childhood maltreatment experiences form part of a developmental path to emotional intelligence and relationship conflict.

Micro Expression Training Tool (METT, Ekman 2003-2006). Twenty-eight (28) video clips from the METT were used in this study. The clips are of 14 adult males and 14 adult females, briefly displaying one of the seven universal emotions: happiness, sadness, fear, disgust, contempt, surprise, and anger. Permission to use these images in this study was obtained from Dr. Paul Ekman, through email correspondence with his assistant Lee Ward-Henderson on January 03, 2008. The METT images chosen for use in this research were placed on blip.tv, an online service that allows streaming video. Participants were directed to http://dsirkia.blip.tv/ in order to view the video clips and were instructed to select which of the seven universal emotions they saw displayed. The images were transferred from the METT training CD in their original
form and were presented to participants for approximately 6 seconds, with the $1/30^{\text{th}}$ of a second presentation of the micro-expression preceded by and followed by the individual displaying a neutral expression. After a five second pause the next image was presented.

Images of faces displaying the seven universal emotions were chosen to assess EIA, or more accurately, specific-ability emotional intelligence, a branch of EIA, because this paradigm appears to have the most construct validity when compared to other subjective measures of ability-based EI. The METT images have not been used for research purposes in the past; rather they are used to train people to more readily identify micro-expressions (personal communication, L. Ward-Henderson, Jan. 03, 2008). Typically, individuals perform no better than chance before receiving training in identifying micro-expressions; however, because these images are used for training purposes rather than research purposes, alpha reliabilities were not available. As such, alpha reliabilities for each of the seven micro-expressions, each only presented to participants four times, were calculated using the data gathered for this study. The alpha reliability results were as follows: .482 for happy; .809 for sad; -.487 for fear; .093 for surprise; .482 for contempt; .220 for anger; and .567 for disgust: For all items the Cronbach's Alpha is .194. SPSS suggests that the negative value obtained for fear (i.e., -.487) is due to a negative average covariance among items, most often likely to a coding error. This was not the case here indicating that inconsistency of responses to the micro-expression of fear is likely the cause. While the majority of these alphas are certainly lower than the .80 that is traditionally accepted as good, given that there were only four micro-expressions for each emotion, and given that before receiving training in recognizing emotions displayed as micro-expressions individuals traditionally perform at chance, these are not unexpected. Consistent with research on facial recognition in general, fear, anger, and surprise garnered the poorest alphas providing further

substantiation that this task is a reasonable measure of an emotion recognition specific-ability emotional intelligence task.

Self-Report Psychopathy Scale-III (SRP-III; Williams, Nathanson, & Paulhus, 2003) (Appendix E). The SRP-III is a 40-item self-report measure of sub-clinical psychopathy. Confirmatory factor analysis of the items yields a two-factor solution each comprised of two facets. Factor 1, Social Deviance/Behaviour, is comprised of the Erratic Lifestyle (ELS) and Criminal Tendencies (CT) facets; while Factor 2, Low Emotionality/Personality, is comprised of the Interpersonal Manipulation (IPM) and Callous Affect (CA) facets. This result is consistent with the recent four-facet structure of the PCL-R (2nd Ed.; Hare, 2003). Williams et al. (2003) report alpha reliabilities of .88 for the total scale, .91 for Criminal Tendencies, .76 for Interpersonal Manipulation, .74 for Callous Affect and .67 for Erratic Lifestyle. The concurrent and predictive validity were supported by its pattern of correlates in that psychopathy correlates negatively with Agreeableness (r = -.46, p < .01) and Conscientiousness (r = -.23, p < .01) and positively with narcissism, Machiavellianism, and other self-report psychopathy measures (Williams et al., 2003). The SRP-III is comprised of 40 items, 10 for each of the four facets; all scored on a 5 point Likert scale. It is self-explanatory, takes about 10 minutes to complete, and was administered online. It was chosen because it appears to have better convergent validity with other traditional measures of psychopathy (PCL-R, Hare, 1991/2003) then do other selfreport measures.

Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy & Sugarman, 1996) (Appendix F). The CTS2 is the most widely used instrument for measuring intimate partner violence. It is comprised of 39 pairs of questions that measure received and inflicted behaviours, which in turn produce five scales: Negotiation, Psychological Aggression, Physical

Assault, Physical Injury, and Sexual Coercion. On the basis of a current relationship, or one that took place in the past, participants were instructed to choose their answers from seven frequency categories: 1=once, 2=twice, 3=3 to 5 times, 4=6 to 10 times, 5=11to 20 times, 6=more than 20 times, and 0=this has never happened. The CTS2 is scored by summing the midpoint of the response category chosen by the respondent (e.g., for category 3, which equals 3 to 5 times, the midpoint is 4). For purposes of this study, data analyses were done on the basis of the total of 'participant only' scores (e.g., what the participant him or herself did to a partner) for the four maladaptive conflict resolution scales (e.g., psychological aggression, physical assault, physical injury, and sexual coercion). Partner data (i.e., what a partner did to a participant, as reported by the participant) was also collected; however, it was not used in the data analyses, as the other measures pertain to the participant, not the partner. The CTS2 takes approximately 12 minutes to complete and was administered online. This instrument was chosen to assess conflict in romantic relationships because it assesses a wide range of conflict tactics, has been well validated on community samples, and is easy to administer.

The results of a recent study (Straus, 2004) of the dating relationships of students at 33 universities in 17 countries show that the alpha coefficients of reliability for the five CTS2 scales are generally high across all sites, which indicates that the measure has cross-cultural reliability. This is an important consideration given that the community sample used in this study has a range of ethnic backgrounds. Several sites had low reliability coefficients, which was said to be likely due to the sites having very low prevalence rates of partner violence (Straus, 2004).

CTS2 construct validity in this recent study (Straus, 2004) was demonstrated by use of scatter plots and partial correlations, which showed that: 1) universities with high assault rates also had high injury rates; 2) the larger the percentage of students who had experienced corporal

punishment as a child, the higher the percentage was of students who reported physically assaulting a partner; and 3) at sites where one partner tended to be dominant in dating relationships there was a higher rate of assault on partners (Straus, 2004).

Test-retest reliability was not measured by Straus (2004), although he conceded that this measure of temporal consistency is an important aspect of reliability. Straus (2004) noted that test-retest data is often unavailable for social and psychological measures, as is demonstrated by the fact that only 3 of the 100 studies published to date on the CTS2 report such data, while greater than 40 studies report alpha coefficients. Of all the studies reporting reliability data, most report that the conventional standard of an alpha of .70 or greater is met (Straus, 2004).

Straus (2004) did not investigate concurrent validity for the CTS2, as it closely resembles its predecessor the CTS, which does have concurrent validity. While he did not research concurrent validity directly he reported that five studies have done so and all report that the five scales are correlated with other measures that approximate the same constructs (Straus, 2004).

Straus (2004) noted that all analyses controlled for social desirability and the gender of the respondent when relevant, making it unlikely that the results reflect differences between universities in terms of student willingness to divulge socially undesirable behaviour (Straus, 2004).

Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997) (Appendix G). The EQ-i is a self-report measure of trait EI. It is comprised of 133 items that are scored on a five-point Likert scale. Response choices range from 1(not true of me) to 5 (true of me). The EQ-i produces a total score, five composite scores (Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood), 15 content subscale scores (Emotional Self-Awareness, Self-Regard, Self-Actualization, Assertiveness, Independence, Empathy, Social Responsibility,

Interpersonal Relationship, Reality Testing, Flexibility, Problem Solving, Stress Tolerance, Impulse Control, Optimism, and Happiness), and four validity scales (omission rate, inconsistency rate, Positive Impression, and Negative Impression). If the omission rate for any of the subscales exceeds 6% or more the scoring is considered invalid, while an elevation above 12 on the inconsistency index (calculated by summing the differences in scores between responses on 10 pairs of items) suggests that the individual is randomly responding, which renders the assessment invalid (Bar-On, 1997). Scores on the Positive and/or Negative Impression management scales that exceed two standard deviations above or below the population mean of 100 (+/-30) suggests that responding is biased and that results are likely invalid. Raw scores for each scale are converted to standard scores on the basis of the afore mentioned population mean of 100 and standard deviation of 15 (Bar-On, 1997).

The EQ-i was normed in North America, as well as in Argentina, Canada, Germany, India, Israel, Nigeria and South Africa using 3,831 participants. Bar-On (1997) determined that there are no gender differences in overall EQ-i scores although there are some differences on the subscales. He found that age does affect scores, with older participants scoring higher than younger participants. On the basis of these differences he provides age and gender norms to which assessments are bound. The subscales have Cronbach's alpha's that range from .69 (Social Responsibility) to .86 (Self-Regard), while the overall internal consistency coefficient for the EQ-i is .76 (Bar-On, 1997). Exploratory and confirmatory factor analysis established the EQ-i as a hierarchical construct, which includes one overall factor, five composite factors, and 15 subscales, although there is controversy in this regard (Palmer et al., 2003). In order to establish construct validity, Bar-On (1997) correlated EQ-i scores with 10 personality scales and tests of convergent and divergent validity indicate that the EQ-i measures EI. The EO-i requires

that respondents be at least 16 years old and have a Grade 6 reading level. The EQ-i was administered online and takes about 20 minutes to complete. The EQ-i (Bar-On, 1997) was chosen to assess EIT because it is a widely used and well validated instrument available to assess EIT.

In addition, participants were asked to complete a brief demographic questionnaire (Appendix H).

Procedure

The entire study was conducted via online survey. The internet based survey company 'Survey Monkey' was chosen as the vehicle by which to put the survey online due to its ability to accommodate the needs of the study and its cost effectiveness. Survey Monkey enables the user to construct their own survey by inputting the survey content (e.g., Participant Information Letter, Questionnaires, Debriefing, etc.) to suit the needs of the study. Survey Monkey provides a plethora of question and response options, so the user is able to remain true to the original questionnaires. The end product is easy for participants to use; additionally, the user is able to easily monitor participation, save completed information in spreadsheet format; and review responses.

Alternative survey providers were considered, as Behavioural Research Ethics Board (BREB) requires researchers to justify their use of a US based survey company; however, no Canadian online survey companies were found and other alternatives (e.g., ARES), who provide customized online surveys, were cost prohibitive (e.g., \$8,000 to \$10,000 for this study versus about \$60 with Survey Monkey). Fortunately, BREB did allow the use of Survey Monkey for the purpose of this study; they did however require that participants be informed that due to US legislation in the Patriots Act the survey company itself would collect IP addresses from

computers accessing the survey online. This is not an infringement of participants' anonymity, as the IP addresses are not provided to the researchers and are not linked to particular responses.

One aspect of the study could not be accommodated by Survey Monkey; namely the presentation as 'streaming video' of the micro-expressions utilized as a measure of specificability EIA. Fortunately, the UBC based ARES, while cost prohibitive with respect to customized surveys, were very helpful and provided free consultation to the researcher. ARES' suggestion that 'Youtube' be utilized to present the micro-expressions as 'streaming video' to participants overcame the limitation of Survey Monkey. The researcher obtained the services of a computer professional who captured the micro-expressions from the Micro Expression Training Tool CD (Ekman, 2003-2006), and placed them on 'blip.tv', an alternative online service that the computer professional thought was better suited to the task than 'Youtube'.

Participants contacted through network sampling, described earlier, received an email from the participant, advising them of the study and participation details. The email included links to both 'Survey Monkey' and 'blip.tv', as well as an attached 'Word' document entitled 'Micro expression worksheet' (Appendix I), on which they could record their responses when viewing the micro-expressions on blip.tv. Once participants viewed the micro-expressions at http://dsirkia.blip.tv/ they proceeded to the main survey on 'Survey Monkey'.

A printed copy of the survey is available, but was not included as an appendix, as its content is provided for by the other appendices; it can also be accessed by clicking on the following link

<u>http://www.surveymonkey.com/s.aspx?sm=ybZp83qQ5u%2fGrERKJXZ0RQ%3d%3d</u> and entering the password 'thisistheend'. The online survey commenced with a 'Participant Information Letter' (Appendix J), which provided full disclosure regarding the purpose of the

study; contact information for the researchers; limits of confidentiality with respect to IP addresses and the survey company itself; risks inherent in participating (e.g., the sensitive nature of the information being asked about for those who have experienced Childhood Maltreatment Experiences (CME) and/or relationship conflict of a disturbing kind); and the ability of participants to cease participating at any point without negative consequence. It also advised them that as recompense for their time, a free assessment of their emotional intelligence, as assessed by the Bar-On EQ-i was offered. As a limitation of Survey Monkey is its inability to provide scores and general explanations to participants during the course of their actual participation, the researcher asked that participants interested in receiving a free assessment of their EI contact her via email. When a request was received, a Word document of the EQ-i was emailed to the participant and they were asked to complete and return it via email. While the participant's email address and possibility name became known to the candidate using this method, it was still possible to preserve the anonymity of their responses on the survey itself, as there was no way to match their names and/or email address to their specific online responses.

Once a participant read through the information page and clicked on 'next' they were viewed as having provided their consent to participate in the study; clicking on 'next' also led them to the next part of the survey, which was the brief demographic questionnaire.

Once they complete the demographic page, they were guided to the micro-expression page. Here they were instructed to transfer their answers from the Word document entitled 'Micro expression worksheet' that they were instructed to print and use when viewing the 28 micro expressions viewed at <u>http://dsirkia.blip.tv/</u>. Once they transferred their responses to this page, they moved on to the first formal questionnaire, which was the modified Childhood Maltreatment Interview Schedule Short Form (CMIS-SF; Briere, 1992); this was followed by the

Self-Report Psychopathy Scale-III (SRP-III; Williams, Nathanson & Paulhus, 2003); the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy & Sugarman, 1996); and the Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1997). The questionnaires were followed by a comprehensive debriefing form (Appendix K), which not only provided further information about the purpose of the study and the hypothesized outcomes, but also provided information about local support services in case a participant found the content of the study disturbing. BREB recommended that provision be made for non-local participants in need of assistance in this regard, which was accommodated by the candidate providing information about her professional experience dealing with persons who have experienced CME and/or relationship conflict, such that they could be provided with initial reassurance about their experiences and personal assistance in seeking out additional services should they require it; none did. The next chapter will outline the results obtained in this study.

CHAPTER FOUR:

RESULTS

The overarching purpose of this study was to investigate the degree to which childhood maltreatment experiences, psychopathy, and emotional intelligence – trait and ability – could predict relationship conflict in a community-based sample of men and women. The following section discusses the specific aims of the study and the statistical procedures that were used to address them.

The first aim of this study was to explore the nature of the associations among the four predictor variables: childhood maltreatment experiences (CME), Emotional Intelligence Trait (EIT), Emotional Intelligence Ability (EIA), and psychopathy. It was hypothesized that: higher levels of CME will be associated with lower levels of EIT and EIA; there will be a positive and significant association between CME and psychopathy, and an inverse relation of EIT and EIA to psychopathy. To explore the nature of these relations the associations between variables were formally tested using t-tests and Pearson product-moment correlations.

The second aim of this study was to determine whether or not gender differences exist which regard to each of the predictor variables, namely CME, EIT, EIA, and Psychopathy. In order to explore for gender difference, unadjusted associations between each predictor variable and gender were tested for *via* t-tests and the Wilcoxon Rank Sum test (a non-parametric version of the t-test). Analyses of Variance (ANOVAs) were used to determine whether or not there were differences between males and females on the effect of CME on EIT, EIA, and Psychopathy according to gender. Few specific hypotheses were generated due to a dearth of prior research; however, several tentative hypotheses were put forth. Females will score higher than males on EI measures (EIT and EIA); males will score higher than females on the psychopathy measure; and females will report more CME than will males.

The third aim of this study was to explore the relation of each of the predictor variables (CME, EIT, EIA, and psychopathy) to the outcome variable, relationship conflict, as operationalized by the Revised Conflict Tactics Scale (CTS2). In this case, the total score of the 4 subscales indicative of negative relationship conflict – psychological aggression, physical assault, sexual coercion and physical injury. Hypotheses put forth include: Higher levels of CME will be associated with higher levels of relationship conflict; higher levels of EIA will be associated with lower levels of relationship conflict; higher levels of EIT will be associated with lower levels of relationship conflict; higher levels of EIT will be associated with higher levels of psychopathy will be associated with higher levels of relationship conflict. To examine these hypotheses, unadjusted associations were tested using the Wilcoxon Rank Sum test and Spearman correlation (a non-parametric measure of correlation), as appropriate.

Finally, the forth and overarching goal of this study was to obtain a more comprehensive picture of the manner in which CME, EI (ability and trait), and psychopathy singularly and collectively, predict relationship conflict. As the outcome variable relationship conflict (i.e., CTS2) is a measure of infrequent behaviours (e.g., psychological aggression, physical assault, sexual coercion, and physical injury in the context of relationships in a community-based sample), Poisson regression was used to account for the positively skewed count data yielded by the CTS2. Atkins and Gallop (2007) note that most researchers continue to rely on ordinary least-squares (OLS) regressions to analyze this type of data, despite the risk of serious biases in the estimates and inferences that result. Atkins and Gallop remind us that regression analyses "will only provide correct inferences when the data meet certain assumptions (i.e., independence, normality of the residuals, linearity of the relationship, homoskedasticity)" (p. 5) and that violation of these assumptions can result in "incorrect standard errors and *p*-values" (p. 5).

Atkins and Gallop suggest that the Central Limit Theorem (CLT), which states that "as the sample size increases, the sampling distribution of the mean (or regression coefficient) becomes normally distributed regardless of the shape of the original distribution in the sample" (p. 5), is often invoked when assumptions are not met. However, Atkins and Gallop advise that there are difficulties associated with doing this, as with some count data, such as that garnered by the CTS2 in this study, "it is rarely clear how big a sample size is big enough to assure that the CLT protects against Type I errors" (p. 5) and "Wilcox (2005) and others have convincingly shown that power to detect true effects plummets as assumptions are violated" (as cited in Atkins & Gallop, 2007, p. 5).

Count variables, such as those in the CTS2 have certain properties: 1) they can never be negative; 2) they are integers or whole numbers; and 3) they tend to be positively skewed, as is the case with the CTS2 variables (Atkins & Gallop (2007). As Atkins and Gallop (2007) point out, because OLS regression uses the normal distribution as its probability model, it is "fundamentally not a very good fit for these types of data, as the normal distribution is symmetric and extends from negative to positive infinity" (p. 6). In cases such as these, the Poisson distribution is a better fit, as while the Poisson regression shares similarities to the OLS regression; it uses the Poisson distribution as its probability model, as opposed to the normal distribution (Atkins & Gallop, 2007).

On this basis, the Poisson regression was used to propose a model for relationship conflict, as measured by the CTS2, taking the following predictors into account: Childhood Maltreatment Experiences (CME), as measured by physical and sexual abuse reported on the Childhood Maltreatment Interview Schedule – Short Form (CMIS-SF; Briere, 1997); Emotional Intelligence – Ability (EIA), as measured by micro-expressions from the Micro-Expression

Training Tool CD (METT, Ekman, 2003-2006); Emotional Intelligence – Trait (EIT), as measured by the Bar-On EQ-i (Bar-On, 1997); psychopathy, as measured by the Self-Report Psychopathy - III (SRP-III; Williams, Nathanson & Paulhus, 2003), and gender. Continuous measures were centered around their means prior to entry as predictors and binary predictors were dummy-coded with males and no childhood maltreatment experiences coded as 0. Data were analyzed using SPSS 15.0 for Windows. Regression analyses were fitted using the statistical software R. Because ordinary least squares regressions were initially done with this data, these results are included in Appendix L for the sake of those who would like to compare results with those obtained via Poisson regressions.

This chapter is laid out into 4 main sections: 1) childhood maltreatment experiences and analyses; 2) descriptive statistics for the measures used; 3) inferential statistics for main variables of interest; and 4) regression analyses related to the hypotheses. Sampling methodology and description of the measures used are provided in Chapter 3 and will not be reiterated herein. <u>Childhood Maltreatment Experiences</u>

Participants completed a modified version of the Childhood Maltreatment Interview Schedule – Short Form (CMIS-SF; Briere, 1992). This instrument asked a series of detailed questions about childhood experiences, some of which are abusive experiences (e.g., sexual abuse, physical abuse, witnessing parental violence), while others are more difficult to categorically describe as abusive (e.g., overhearing parents argue; being yelled at, criticized, insulted, humiliated, etc.; being subjected to 'corporal punishment'). While the majority of survey participants did not experience the more overt forms of childhood maltreatment, 16.8% (N = 33) responded 'yes' when asked if they had been sexually abused and 19.8% (N = 39)responded 'yes' when asked if they had been physically abused. The more salient of the

questions and participants' responses to them are found in Appendix M, as only participants' endorsement of sexual abuse and/or physical abuse, which together form the predictor variable Childhood Maltreatment Experiences (CME), are included in the main analyses, as whether or not some of the other experiences were abusive or not was too subjective a determination to make.

Descriptive Statistics

The overall scores on the Self-Report Psychopathy Scale - III (SRP-III) ranged from 1.05 to $3.90 \ (M = 2.30, SD = .60)$. The EQ-i raw scores ranged from 236 to 559 (M = 439.43, SD = 66.11). The EQ-i standardized scores ranged from 53.84 to 127.13 (M = 100, SD = 15). The percentage of correct scores out of 28 for the Micro-Expressions streaming video clips ranged from 7.14 to 100 (M = 66.39, SD = 21.32). Total scores on the Revised Conflict Tactics Scales (CTS2) for the four subscales used to assess relationship conflict ranged from 0 to 182 (M = 28.21, SD = 38.66). Descriptive statistics for the instruments are presented in Table 3.

Table 3

| | N | Range | Mean (Standard Deviation) | Median (Interquartile Range) |
|--|-------------|---------------|---------------------------------|---------------------------------|
| Self-Report Psychopathy Scale (Overall Score) | 197 | 1.05 -3.9 | 2.30 (.060) | 2.23 (1.88 – 2.63) |
| EQ-i Standardized Score | 156 | 53.8 - 127.1 | 100.0 (15.0) | 102.2 (92.4 - 110.5) |
| Bar-On EQ-i Raw Score Total | 156 | 236.0 - 559.0 | 439.4 (66.1) | 449.0 (406.0 - 485.5) |
| Micro-Expression Number Correct out of 28 | 197 | 2.00 - 28.0 | 18.6 (5.97) | 19.0 (15.0 – 24.0) |
| Micro-Expressions Percentage Correct | 1 97 | 7.14 - 100.0 | 66.4 (21.3) | 67.9 (53.6 - 85.70) |
| Revised Conflict Tactics Scales for Participants (Total Score for Four Subscales) | 195 | 0 .00 - 182.0 | 28.2 (38.7) | 13.0 (4.0 – 35.0) |
| Psychological Aggression | 195 | 0.00- 108.0 | 19.6 (24.2) | 11.0 (3.00 - 25.0) |
| Physical Assault | 195 | 0.00 - 72.0 | 3.66 (9.99) | 0.00 (0.00 - 2.00) |
| Sexual Coercion | 195 | 0.00 - 56.0 | 4.16 (10.5) | 0.00 (0.00 - 1.00) |
| Injury | 195 | 0.00 - 29.0 | 0.83 (3.69) | 0.00 (0.00 - 0.00) |
| Valid N (listwise) | 156 | | | · · · · |

Descriptive Statistics

The scores on the SRP-III for males ranged from 1.23 to 3.90 (M = 2.62, SD = 0.63) and for females, scores ranged from 1.05 to 3.90 (M = 2.14, SD = .51). Figure 2 indicates that these scores are normally distributed.



Figure 2. Self-Report Psychopathy Scale (Overall Score) by Gender

The standardized EQ-i scores for males ranged from 70.86 to 127.13 (M = 102.12, SD = 12.42); for females scores ranged from 53.84 to 125.77 (M = 98.85, SD = 16.18). Figure 3 indicates that these scores approximate normal distributions.



Figure 3. EQ-i Standardized Scores by Gender

Participants were asked to identify universal emotions in 28 streaming video Micro-Expression clips: Percentage correct scores for males ranged from 14.29 to 96.43 (M = 64.55, SD = 20.05), while for females percentage correct scores ranged from 7.14 to 100 (M = 67.34, SD = 21.97). Figure 4 indicates that these scores approximate normal distributions.





The scores for males on the four subscales of the CTS2 used to evaluate relationship conflict ranged from 0 to 182 (M = 36.29, SD = 47.33); for females scores ranged from 0 to 158 (M = 24.08, SD = 32.82). Figure 5 indicates that these scores have a positive skew.



Figure 5. Revised Conflict Tactics Scale Scores by Gender

The descriptive statistics by gender are summarized in Table 4.

Table 4

Descriptive Statistics by Gender

| Sex | | Self-Report Psychopathy Scale (Overall Score) | EQ-i Standardized Score | Micro-Expressions Percentage Correct | Revised Conflict Tactics Scales for Participants (Total Score for Four Subscales) |
|--------|-----------------------|---|----------------------------|---|---|
| Male | Mean (Std. Deviation) | 2.62 (0.63) | 102.1 (12.4) | 64.6 (20.1) | 36.3 (47.3) |
| | Ν | 67 | 55 | 67 | 66 |
| | Range | 1.23 - 3.90 | 70.9 - 127.1 | 14.3 - 96.4 | 0.00 - 182.0 |
| | Median (IQR) | 2.48 (2.13 - 3.05) | 103.1 (93.8 – 109.7) | 64.3 (50.0 - 85.7) | 12.0 (3.00 - 48.0) |
| Female | Mean (Std. Deviation) | 2.14 (0.510 | 98.8 (16.2) | 67.3 (22.0) | 24.1 (32.8) |
| | N | 130 | 101 | 130 | 129 |
| | Range | 1.05 - 3.65 | 53.8 -125.8 | 7.14 - 100.0 | 0.00 - 158.0 |
| | Median (IQR) | 2.10 (1.78 – 2.40) | 102.2 (91.7 – 111.0) | 67.9 (57.1 - 82.1) | 13.0 (4.00 - 28.0) |
| Total | Mean (Std. Deviation) | 2.30 (0.60) | 100.0 (15.0) | 66.4 (21.3) | 28.2 (38.7) |
| | N | 197 | 156 | 197 | 195 |
| | Range | 1.05 - 3.90 | 53.8 - 127.1 | 7.14 - 100.0 | 0.00 - 182.0 |
| | Median (IQR) | 2.23 (1.88 – 2.63) | 102.2 (92.4 - 110.5) | 67.9 (53.6 – 85.7) | 13.0 (4.00 – 35.0) |

Inferential Statistics

Possible gender differences amongst the predictor variables are discussed next (See table 16 for means and standard deviations, by gender, for EI and psychopathy). It was hypothesized that females would have significantly more childhood maltreatment experiences (CME) than males. Analyses indicated no support for this hypothesis, although a greater proportion of males reported that they were physically or sexually abused than did females (40.3% of males *versus* 26.9% of females); however, this difference was not statistically significant (Fisher's Exact 2-sided p = .07).

When the childhood maltreatment variable was broken down into its component parts of physical abuse and sexual abuse, there was a statistically significant difference between males and females with respect to physical abuse (p = .01) with males reporting more physical abuse than females. There was not a statistically significant difference between males and females with respect to sexual abuse (p = .37).

It was also hypothesized that females would score significantly higher on EIA and EIT than males. Results of a t-test yielded no support for this hypothesis – there was no significant difference between males and females with regard to EIA scores (percentage correct for the Micro-Expressions) (2-sided t-test p = .39) and no significant difference between males and females and females on the EQ-i (2-sided t-test p = .16).

Lastly, it was hypothesized that males would have significantly higher psychopathy scores than females, as measured by the SRP-III. Analyses yielded support for this hypothesis, namely males scored significantly higher than females on the Self-Report Psychopathy Scale (2-sided t-test p < .0001).

Gender differences on the outcome variable relationship conflict, as measured by the CTS2 were also explored. It was hypothesized that males would score significantly higher on this variable than would females. As performance on the CTS2 is measured by a count and this variable appeared to be skewed with a large number of zero counts, it was necessary to use Poisson regression in order to test the relation between the different variables, including gender, and the performance on the CTS2. As was previously discussed, this statistic is recommended when the independent variable is skewed count data with a large number of zero counts as well as extra variation which can be seen from the long tail of the distribution. There was a statistically significant relationship observed between gender and performance on the CTS2 (p = .04). Female subjects had an expected log score -0.4447 less than male subjects, which translates into a 36% lower CTS2 score than for males; hence this hypothesis was supported.

The relations amongst the four predictor variables (CME, EIA, EIT, and psychopathy) are discussed next. It was hypothesized that participants who reported a history of physical or sexual abuse would have lower EIA scores; this proved to be true, in that those with a history of physical or sexual abuse had, on average, lower performance on the Micro-Expressions than those who had no history of physical or sexual abuse (Ms = 65.0 *and* 67.0, respectively); however, this difference was not statistically significant (2-sided t-test, p = .55), hence the hypothesis was not supported. It was also hypothesized that those with a history of physical or sexual abuse would have lower EIT scores. This hypothesis was supported, as on average, those with a history of physical or sexual abuse had statistically significantly lower EQ-i scores than those with no history (Ms 94.1 *and* 103.3, respectively; 2-sided t-test p = .0007). It was also hypothesized that those with a history of physical or sexual abuse would have higher psychopathy scores; this hypothesis was supported, as those with a history of physical or sexual abuse would have higher psychopathy scores; this hypothesis was supported, as those with a history of physical or sexual

abuse had a statistically significantly higher SRP-III score than those who had not experienced physical or sexual abuse (Ms 2.54 *and* 2.20, respectively; 2-sided t-test p = .001).

Hypotheses about the relations between emotional intelligence and psychopathy were also proposed. It was hypothesized that higher EIT scores would result in lower psychopathy scores; however, there was no significant relationship between performance on EQ-i and performance on the SRP-III (Spearman correlation = -.04, N = 156, two-sided p = .66). It was also hypothesized that higher EIA scores would result in lower psychopathy scores; however, there was no significant relationship between performance on the Micro-Expressions and performance on the SRP-III (Spearman correlation = -0.03, N = 197, two-sided, p = .66).

A relation between EIT and EIA was also proposed with the hypothesis being that they would be correlated, but not perfectly. This hypothesis was not supported in that no significant relationship was found between performance on the Micro-Expressions (EIA) and performance on the EQ-i (EIT) (Spearman correlation = -0.003, N = 156, two-sided p = .97).

Regression Analyses

In the next section the relationships between the four predictor variables (e.g., childhood maltreatment experiences, EIT, EIA, and psychopathy) and the outcome variable relationship conflict, as operationalized by the total score garnered from four subscales (i.e., psychological aggression, physical assault, sexual coercion, and physical injury) of the CTS2 that indicate relationship conflict will be detailed. As noted earlier, it was necessary to use the Poisson regression model for these analyses given the nature of the CTS2 data.

First it was hypothesized that CME would be a positive predictor of relationship conflict, as measured by the CTS2. This hypothesis was supported, as those with a history of physical or sexual abuse were associated with statistically significantly higher CTS2 scores than those without a history of physical or sexual abuse (p < 0.001). In this case, an expected log score of 1.09 was noted, which translates to a higher average CTS2 score of about 2.97 or 200%.

Additional analyses were performed to parse out any possible differences in physical abuse versus sexual abuse experiences, as combining the two may have masked a significant difference in terms of the influence of experiencing one versus the other on relationship conflict. There was a statistically significant relation observed between physical abuse and performance on the CTS2 (p < .001) when gender is NOT controlled for, as a history of physical abuse was associated with a 69% increase in CTS2 score when compared with those who did not have these experiences. Similarly, when gender was NOT controlled for, those who experienced sexual abuse had an associated 28% increase in CTS2 score versus those who did not.

Next it was hypothesized that higher levels of EIA would result in lower levels of relationship conflict. This hypothesis was also supported, as there was a statistically significant relationship between performance on the Micro-Expressions (EIA) and performance on the CTS2 (p = .02); with each one percentage increase in micro-expression score associated with an approximated 1% decrease in the expected CTS2 score.

It was also hypothesized that higher levels of EIT would result in lower levels of relationship conflict. This hypothesis was supported, as there was a statistically significant relationship between performance on the EQ-i (EIT) and performance on the CTS2 (p = .0062); with each percentage increase in EQ-i score associated with a 1.78% decrease in CTS2 score.

The last hypothesis dealing with one predictor variable and the outcome variable stated that higher levels of psychopathy will result in higher levels of relationship conflict. This hypothesis was also supported, as there was a statistically significant relation between performance on the SRP-III, a measure of psychopathy, and performance on the CTS2 (*p*

<0.001), with each percentage increase in SRP-III score associated with a 250% increase in CTS2 score.

For the following analyses, exploratory regression analyses were conducted in order to determine the extent to which the four predictor variables (childhood maltreatment experiences, EIT, EIT, and psychopathy) and gender predicted relationship conflict. As already discussed, Poisson regressions were done in order to best accommodate the CTS2 data; however, for those interested, least squares regressions done separately for males and females can be found in Appendix L.

The model was built by adding one predictor variable at a time; first gender was added, which as previously stated, revealed that being female was associated with a 36% decrease in expected CTS2 scores compared to males: This was significant (p = .034).

Next, childhood maltreatment experiences were added to the model. Holding gender constant, those with a history of physical or sexual abuse had an associated 185% increase in CTS2 scores compared to those who were not physically or sexually abused, which was significant (p < .001). Females showed an associated decrease of 24.7% rather than 36% in expected CTS2 scores compared to males as a consequence of CME being added, which was no longer significant (p = .128).

When CME is separated into the two variables it is composed of – physical abuse and sexual abuse – the following results were obtained: When gender is controlled for, it remains the case that those who experienced physical abuse have an associated statistically significant increase of 67% in their CTS2 scores (p < .001) compared to those who were not physically abused. Those who experienced sexual abuse also have an associated increase of 31% in their CTS2 scores, compared to those who were not, but it is not statistically significant (p = 0.08).

EIA (percentage of micro-expressions correct) was added to the model next. Holding gender and childhood maltreatment experiences constant, each unit increase in percentage of micro-expressions correct translates into an associated 1% decrease in CTS2 score, which was significant (p = .003). There was minimal impact on gender, with females continuing to show an associated decrease of 24.4% in expected CTS2 scores compared to males; however, childhood maltreatment experiences were impacted, in that those who had experienced physical or sexual abuse exhibited an associated 192.7% increase in CTS2 scores versus the 185% reported earlier. Gender was not significant (p = .12) while CME was significant (p < .001).

When physical abuse and sexual abuse are added separately, in place of a single childhood maltreatment experiences variable, females show an associated decrease of 22% in expected CTS2 scores compared to males; those with physical abuse experiences exhibit an associated increase of 66%, which was statistically significant (p = .001) in CTS2 scores, while those with sexual abuse experiences exhibit an associated increase of 30%, which was not statistically significant (p = .0138). EIA changes little as a result of childhood maltreatment experiences being divided into physical abuse and sexual abuse. The result is statistically significant (p = .01); however, the associated decrease in CTS2 scores is marginal at 1%.

EIT was added next: holding gender, childhood maltreatment experiences and EIA constant, each unit increase in EIT score translated into an associated 1% decrease in CTS2 score, which was not significant (p = .068). There was some impact of gender, in that females showed an associated decrease of 29.9% in CTS2 scores, which was borderline significant (p = .052); while childhood maltreatment experiences now accounted for an associated 162.8% increase in CTS2 scores for those who reported physical or sexual abuse. There was little impact

on EIA with the decrease in expected CTS2 scores remaining at 1%, which was significant (p = .003).

When childhood maltreatment experiences are divided in physical abuse and sexual abuse the following are the results: Females showed an associated decrease of 27% in CTS2 scores, which was not statistically significant (p = .09); physical abuse experiences resulted in an associated 63% increase in CTS2 scores for those who had experienced physical abuse, which was statistically significant (p < .001) and sexual abuse resulted in an associated 22% increase in CTS2 scores for those who experienced sexual abuse, which was not statistically significant (p = .001) and sexual abuse, which was not statistically significant (p = .25), but which resulted in an associated 22% increase in CTS2 scores. EIA remained statistically significant (p = .007); however, again the associated decrease in CTS2 score was marginal at 1%; EIT just missed statistical significance (p = .053); however, the decrease in CTS2 scores was minimal at 1%.

Finally, psychopathy (SRP-III) was entered into the model with the following result: Holding everything constant females showed an associated 25% increase in expected CTS2 score compared to males. Holding everything constant those with history of physical and sexual abuse exhibited an associated 49% increase in CTS2 score compared to those who were not physically or sexually abused. Each unit increase in percentage of micro-expression score correct translated into an associated 1% decrease in CTS2 score. A unit increase in EQ-i score resulted in an associated 2% decrease in CTS2 score. Finally an average unit increase in SRP resulted in an associated 230% increase in CTS2 score. The full model looks like this: Log (CTS2) = 2.09 + 0.22 (Gender) + 0.397 (CME) - 0.005 (micro-score/EIA) - 0.016 (EQi/EIT) + 1.19 (SRP-III) and is summarized in table 5.

Table 5

| Estimate | % increase | Std. Error | t | value | Pr(>[t]) |
|----------|--|---------------------------|--|--|---|
| 2.094901 | | 0.354355 | 5.912 | 2.19E-08 | *** |
| 0.220151 | 25% | 0.142771 | 1.542 | 0.125184 | |
| 0.397115 | 49% | 0.145095 | 2.737 | 0.006951 | ** |
| -0.00548 | -1% | 0.002793 | -1.963 | 0:051453 | |
| -0.01607 | -2% | 0.004387 | -3.664 | 0.000343 | *** |
| 1.194112 | 230% | 0.103986 | 11.483 | 2.00E-16 | *** |
| | Estimate 2.094901 0.220151 0.397115 -0.00548 -0.01607 1.194112 | %Estimateincrease2.094901 | %Std.EstimateincreaseError2.0949010.3543550.22015125%0.1427710.39711549%0.145095-0.00548-1%0.002793-0.01607-2%0.0043871.194112230%0.103986 | %Std.EstimateincreaseErrort2.0949010.3543555.9120.22015125%0.1427711.5420.39711549%0.1450952.737-0.00548-1%0.002793-1.963-0.01607-2%0.004387-3.6641.194112230%0.10398611.483 | %Std.EstimateincreaseErrortvalue2.0949010.3543555.9122.19E-080.22015125%0.1427711.5420.1251840.39711549%0.1450952.7370.006951-0.00548-1%0.002793-1.9630.051453-0.01607-2%0.004387-3.6640.0003431.194112230%0.10398611.4832.00E-16 |

Summary of Poisson Regressions for Variables Predicting Log (CTS2)

As can be seen in table 5, gender, childhood maltreatment experiences (CME), EQ-i (EIT) and SRP-III (psychopathy) are significant predictors of relationship conflict, as measured by CTS2, in this model; however, while EQ-i (EIT) is statistically significant, a decrease of 2% in CTS2 score is of little magnitude in terms of behavioural differences. Given the magnitude of SRP-III score on the model, it could be viewed as confounding, especially as psychopaths have a very low prevalence rate (e.g., approximately 1%) in the community. As such, it may be more illuminating to consider the extent to which the remaining variables (i.e., EQ-i, EIA (microexpressions), childhood maltreatment experiences (CME) and gender predict relationship conflict (CTS2). In this model childhood maltreatment experience (CME) is the most significant predictor, both statistically (p < .001) and in terms of magnitude, as its presence results in an associated 162.9% increase in expected CTS2 scores. The implications of these results will be discussed in Chapter 5.

When psychopathy (SRP-III) was added to the model after childhood maltreatment experience was divided into physical abuse and sexual abuse the results indicate that psychopathy remains the strongest predictor of relationship conflict. A distinction was apparent between physical abuse and sexual abuse though, in that experiencing physical abuse is statistically significant (p = .004) and is associated with an increase in CTS2 scores of 33%, while being sexually abused is not statistically significant, but is still associated with an increase in CTS2 score of about 15%. EIA is not statistically significant (p = .08) and the associated decrease in CTS2 score is less than .50 %. EQ-i remains statistically significant (p = .00014); however, again the associated decrease in CTS2 score is of little magnitude at less than 2%. The full model is as follows:

Log (CTS2) = 3.61 + 0.24 (Gender) - 0.399 (PA) - 0.168 (SA) - 0.0049 (micro-score/EIA) - 0.017 (EQ-i/EIT) + 1.19 (SRP-III) and is summarized in table 6.

Table 6

Summary of Poisson Regressions for Variables Predicting Log (CTS2)

| | Estimate | % increase | Std. Error | t | value 4.23e- | Pr(> t) |
|-------------|----------|---------------|---------------|--------|-----------------|----------|
| (Intercept) | 3.612427 | | 0.412829 | 8.750 | 15 | *** |
| Gender | 0.238122 | 27% | 0.144100 | 1.652 | 0.10054 | |
| PA | -0.39791 | -33% | 0.138660 | -2.870 | 0.00471 | ** |
| SA | -0.16807 | -16% | 0.146845 | -1.145 | 0.25425 | |
| Micro | -0.00489 | -1% | 0.002814 | -1.739 | 0.08408 | |
| EQ-i | -0.01708 | -2% | 0.004369 | -3.910 | 0.00014 | *** |
| SRP | 1.19084 | 228% | 0.104279 | 11.420 | <2e-16 | *** |

Conclusion

A number of the hypotheses proposed in this study were significant. The first aim was to explore possible gender differences amongst the predictor variables. It was hypothesized that females would have significantly more childhood maltreatment experiences than males; this hypothesis was not support. It was also hypothesized that females would have significantly higher EIA and EIT scores; however, neither of these hypotheses were supported. Finally, it was hypothesized that males would have higher psychopathy scores than females; this hypothesis was supported. The second aim of the study was to explore the nature of the relations among the four predictor variables: childhood maltreatment experiences (CME), EIT, EIA, and psychopathy. It was hypothesized that those participants reporting a history of CME would have lower EIA scores and lower EIT scores. Results revealed that while both had lower scores, only EIT scores were statistically significantly lower. The hypothesis that those with a history of CME would have higher psychopathy scores was supported: The hypotheses that those with higher EIT and higher EIA scores would have lower psychopathy scores were not support. Finally, the relationship between EIT and EIA was explored, with the hypothesis being that they would be significantly but not perfectly correlated; this hypothesis was not supported.

The third set of hypotheses concerned the impact of the predictor variables (childhood maltreatment experiences, EIA, EIT, and psychopathy) on the outcome variable relationship conflict. The first these hypotheses, that those with a history of childhood maltreatment experiences (CMT) would have higher CTS2 scores was supported. The next two hypotheses concerned emotional intelligence; namely those with higher levels of EIA would have lower CTS2 scores; this was supported, as was the hypothesis that those with higher levels of EIT would have lower CTS2 scores. The last hypothesis stated that higher levels of psychopathy would predict higher CTS2 scores; this hypothesis was also supported revealing that psychopathy alone was the strongest predictor of relationship conflict.

The final analyses were exploratory regression analyses conducted to determine the extent to which the four predictor variables, and gender, predict the outcome variable relationship conflict. A series of Poisson regressions was performed by adding one predictor variable at a time. A final model was derived that incorporated all the variables and psychopathy was found to be the most predictive of CTS2 when holding all other variables constant. If

psychopathy is not included as a predictive variable, childhood maltreatment experiences (CME) are most predictive or relationship conflict with an associated increase the expected CTS2 score of 162.9%. Regardless of which of these models is considered, emotional intelligence, while gaining statistical significance in the form of EIT, did not result in changes of any real magnitude in expected CTS2 scores.

In the interest of thoroughness, the childhood maltreatment experience variable was broken into the two variables it was composed of; physical abuse and sexual abuse. Overall this produced little change in the impact of the predictive variables on the outcome variable relationship conflict (CTS2): Psychopathy (SRP-III) remained the most robust predictor of relationship conflict by far. A more thorough discussion of these findings is found in Chapter 5.

Additional analyses were conducted in order to explore the impact of high versus low psychopathy on the model predicting relationship conflict. Also, the predictor variable psychopathy, as measured by the SRP-III and its four facets, was analysed further in association with the other predictor variables and relationship conflict, with the additional step of breaking down the CTS2 into its subscales and using each as an outcome variable. These ancillary analyses can be found in Appendix N.

CHAPTER FIVE:

DISCUSSION

There were several purposes underlying this study; however, the overarching purpose of this study was to investigate the degree to which childhood maltreatment experiences, psychopathy, emotional intelligence – trait and ability – could predict relationship conflict in a community-based sample of men and women. This is the first study to assess emotional intelligence and the possible associations between it and relationship conflict in a community-based sample, as the two previous studies found (e.g., Swift, 2002; Winters et al., 2004) considering these variables were completed with samples comprised of men with a history of intimate partner violence. This study also sought to extend preliminary studies done on the associations between emotional intelligence and psychopathy and emotional intelligence and childhood maltreatment. In addition, the associations between the predictor variables (childhood maltreatment experience, EIA, EIT, and psychopathy) were examined, as were the impact of gender on the outcome variable relationship conflict.

This chapter commences with a discussion of the interpretations of the data, after which the methodological limitations of the study are outlined, followed by the conceptual implications of the findings. Finally, recommendations for future research are offered.

Interpretation of the Data

Data interpretation proceeds in order of the hypotheses. The first set of hypotheses involved gender differences amongst the predictor variables. Contrary to expectations, the hypothesis that females would have higher levels of childhood maltreatment experiences than males was not supported; this may be a consequence of this variable being derived from participants' endorsements of whether or not they perceived themselves to have been physically abused and whether or not they perceived themselves to have been sexually abused, as that

perception may not be consistent from one participant to another (e.g., one participant may have had a relationship that by many would be construed as abusive, but by him or her was not; or may have had abuse experiences that they perceived as abusive, which others would not). When further analyses were conducted and gender differences were looked at separately for physical abuse and sexual abuse, it was found that males were physically abused at a significantly higher rate than were females. No gender difference was found for sexual abuse.

A second set of gender related hypotheses were not supported as predicted: In this case the hypotheses were that females would have higher EIA and higher EIT scores than males.

With respect to EIA, females did marginally better than men on the micro-expressions, but the difference was not statistically significant.

The hypothesis that males would score higher than females on the psychopathy measure was supported. This is not surprising given that psychopathy is often thought to be more prevalent in men than women; however, most research has been done in correctional settings, hence this finding in a community-based sample of males and females adds to the existing body of research on gender differences in psychopathy.

Gender differences were also assessed on the outcome variable, relationship conflict, as operationalized by the CTS2. It was hypothesized that males would score higher than females on the CTS2 and this hypothesis was supported. When ancillary analyses of the CTS2 subscales (i.e., psychological aggression, physical assault, sexual coercion and physical injury) were conducted, gender differences were only statistically significant for the psychological aggression subscale, wherein being male increased associated CTS2 psychological aggression subscale scores. This finding is contrary to what was expected, as females are typically seen as being

more relationally aggressive; however, that may not be equivalent to psychological aggression, at least as it is measured by the CTS2.

The next set of hypotheses considered relations amongst the four predictor variables (childhood maltreatment experiences, EIA, EIT, and psychopathy). It was hypothesized that participants who reported a history of physical or sexual abuse would have lower EIA scores; while this was true, the difference was not statistically significant.

It was also hypothesized that those with a history of childhood maltreatment experiences would have lower EIT scores; this hypothesis was supported. When one considers this finding in light of the physical discipline experiences reported by participants, which are higher than anticipated given that only 23.9% of participants reported no physical discipline experiences, and in light of the lateness of age at which physical discipline ceased for many participants (e.g., more than 50% reporting that it ceased at age 9 or older), the relationship between physical discipline, which in some cases uses force to manage emotions in children, rather than conversation and emotional education, and EIT warrants further exploration. Interestingly, by breaking down the predictor variable CME into its component parts of physical abuse and sexual abuse, this speculation could be further explored, albeit indirectly. As is discussed in chapter 4, the model predicting relationship conflict was rerun replacing the compound variable childhood maltreatment experiences with its component parts: physical abuse and sexual abuse. When this was done little impact was had upon EIA or EIT as predictors of relationship conflict.

The hypothesis that those with a history of childhood maltreatment experiences would have higher psychopathy scores was also supported. This is not surprising given the research on the developmental precursors of psychopathy, such as Conduct Disorder (CD), that find an

association between the onset of CD and maladaptive parenting styles, including an overrepresentation of physical discipline (Forth & Burke, 1998; as cited in Blair et al., 2005).

Given that research on EI and psychopathy is in its infancy, possible associations between these variables were also explored in this study. It was hypothesized that higher EIT scores would result in lower psychopathy scores; this was not supported. It could be that psychopathy as assessed using the SRP-III in a community-based sample is not flagrant enough to produce a statistically significant difference; or it could be that a level of EI is helpful to those with psychopathic traits such as those identified with the SRP-III, allowing them to function more fruitfully in society. It was also hypothesized that higher EIA scores would result in lower psychopathy scores; however, again no statistically significant relationship was found. Ancillary analyses were conducted exploring the impact on the model predicting relationship conflict if the psychopathy variable was delineated into high versus low psychopathy based on a median score split. When this was done EIT remained significant and EIA gained significance; however, although statistically significant in the overall model predicting relationship conflict, neither EIT nor EIA resulted in anything but marginal reductions in CTS2 score rendering them as little practical significance.

The relationship between EIT and EIA was also assessed, with the hypothesis being that they would be correlated, but not perfectly. This hypothesis was not supported, which is contrary to most research that compares the two, much of which was discussed in the literature review in Chapter 2. Given the low Cronbach alphas found for the micro-expressions used to operationalize EIA in this study, speculation as to why this hypothesis was not supported is difficult.

The relationships between the four predictor variables (childhood maltreatment experiences, EIA, EIT and psychopathy and the outcome variable relationship conflict, as operationalized by the CTS2 are considered next. It was hypothesized that childhood maltreatment experiences would be a positive predictor of relationship conflict. This hypothesis was supported as those with a history of childhood maltreatment experiences had statistically significantly higher CTS2 scores than did those without. This finding is in keeping with research that finds an association between the experience of childhood victimization and becoming a violent adult.

Next it was hypothesized that higher levels of EIA would result in lower levels of relationship conflict. This hypothesis was also supported, but given the outstanding questions surrounding the validity of the micro-expressions as a proxy of EIA, little can be made of this finding. It was also hypothesized that higher levels of EIT would result in lower levels of relationship conflict; this hypothesis was supported, although the difference in actual scores on the CTS2 was marginal (e.g., <1.78%).

The final hypothesis considering relations between one predictor variable and the outcome variable considered associations between psychopathy and relationship conflict. It was hypothesized that higher levels of psychopathy would result in higher levels of relationship conflict. As stated in the beginning of this paper, the inclusion of psychopathy was made with full knowledge that it would likely prove to be the most robust predictor of relationship conflict and that proved true: This hypothesis was supported, both statistically and tangibly, as with each percentage increase in psychopathy there was an associated 250% increase in expected CTS2 score. Considering that this result was obtained using a community-based sample of men and women, this is a startling finding and one that adds considerably to what we can say about the
prediction of relationship conflict, in this case psychological aggression, sexual coercion, physical assault and physical injury, in non-forensic samples.

On that note, the model derived from the Poisson regression including all the predictor variables and gender will be discussed. As a reminder, this is the model:

Log (CTS2) = 2.09 + 0.22 Gender + 0.397 CME - 0.005 EIA - 0.016 EIT + 1.19 Psychopathy

This model tells us that psychopathy, as measured by the SRP-III, is associated with a 230% increase in CTS2 score, holding all other variables constant. Childhood maltreatment experiences are next, as they are associated with an increase of 49% in CTS2 scores, while gender (being male) is associated with a 25% increase in CTS2 scores, all other variables being accounted for. Contrary to expectations, emotional intelligence, regardless of whether it was EIA or EIT, has a negligible impact on this model. This model tells us that on the basis of these findings, using the measures of EI used in this research, both of which have limitations and detractors, EI has little predictive use when it comes to determining who might be at risk for perpetrating relationship conflict; however, it confirms what we already know, at least in offender populations: Psychopathy is the greatest predictor of relationship conflict (e.g., violence); something that can now be said with greater confidence about lesser degrees of psychopathy, such as those found in this non-random community-based sample. Two additional known predictors of relationship conflict (e.g., violence) are also supported by this model – experiencing physical or sexual abuse as a child and being male.

Given the impact that the predictor variable psychopathy made on the final model, it was decided to see what happened if it was removed: When this was done CME was the most significant predictor increasing the likelihood of relationship conflict by 163%. Again EI, as measured in this study, was of no predictive use.

In an effort to further understand the predictive power of psychopathy on relationship conflict it was entered into the model as high psychopathy or low psychopathy. Results indicated that high psychopathy scores (i.e., above the median split on the SRP-III) resulted in the largest associated increase in CTS2 scores, as each incremental increase in SRP-III score resulted in a 262% increase in CTS2 scores. Consideration of SPR-III facets revealed that the interpersonal manipulation facet of the SRP-III was associated with the psychological aggression and physical assault subscales of the CTS2; whereas the callous affect facet of the SRP-III was associated with the physical assault subscale of the CTS2. These facets form factor 2 of the SRP-III, which corresponds generally to factor 1 (i.e., interpersonal/affective) of the PCL-R, regarded as assessing the core traits of the disorder.

In conclusion, the finding that psychopathy proved to be the strongest predictor of relationship conflict in this non-random community-based sample has both scientific and practical relevance. First, it serves to extend knowledge already present as to the associations between psychopathy and violence that were hitherto well documented in forensic samples, but were not as well documented in community-based samples. Given the strength of psychopathy's predictive power in this sample, it warrants further consideration in order to extend our knowledge of this association in non-forensic samples, or to refute it. Practically, this knowledge provides those working with non-offenders in situations where an assessment of future risk for relationship conflict or violence is important, an additional area that warrants exploration in decision making processes. For instance, in child custody and access decisions; a marital or relational situation where the risk of violence is being assessed; or foster or adoption placements decisions, amongst others.

Although psychopathy proved to be the strongest predictor of relationship conflict, even in this non-random community-based sample no association was found been psychopathy and EI. However, given the ongoing debate about the utility of the measures used to assess EI in this study this finding should not preclude further study of the relations between EI and psychopathy. Childhood maltreatment experiences were strongly predictive of relationship conflict, both on their own and in the model. As has already been noted, emotional intelligence, as measured in this study, had little real bearing on relationship conflict; either on their own or in the model. Given that alternative measures of both EIT and EIA are available, these results should not discourage further research of these associations. Given that this study was conceived of in the context of violent incarcerated men in the hope that emotional intelligence may be a means of discerning who may benefit from what type of treatment or may highlight a void in current treatment protocols that could be refined to better address emotion deficits, it may be valuable to conduct further research on this variables with alternative EI measures in a forensic sample.

The community-based sample used in this study may also have bearing on the disappointing EI results and furthers the contention there may be some merit in further research being done in a forensic setting;

Methodological Limitations

Sample

While the sample used in this study was a community-based sample, approximately 50% of the respondents were obtained through network sampling; therefore this sample cannot be considered a random sample and findings are not generalizable to the general population. Network sampling entails email solicitation of friends, acquaintances, and colleagues as potential participants, and asking them to pass along the message to their friends, acquaintances, and

colleagues, thereby likely eliciting an overrepresentation, in at least part of the sample, of middle class participants. This skew in the sample composition is illustrated when one looks at the educational attainment statistics, which reveal that 42.2% (*N*=83) of the sample completed at least an undergraduate university degree. This means of collecting almost 50% of the sample also likely influenced the age composition of the sample, as the researcher was responsible for initiating the network sample, and she is in her 40's. The possible middle class skew that may have resulted due to this data collection method was balanced by obtaining the remainder of the sample via online advertisements, which attracted a diverse group of respondents from an educational and age perspective. The online advertisements also served to expand the geographic region from which the sample was drawn, as advertisements were placed in major North American cities; the UK; Sweden; and Australia, which resulted in a diversification of ethnicity, age, education, and socio-economic status.

Procedures

Another possible limitation may have resulted from using an online study. Potential participants were required to have access to a computer and have sufficient knowledge of technology to access the links and complete the survey. On the basis of some feedback received from participants, it is known that the online study proved challenging for some older participants, which resulted in a possible restriction of the subject pool from which the sample was drawn. Despite this limitation, as can be seen from the range of ages (18-78) represented in the sample, some older persons did take part.

Veracity of respondent claims is another possible limitation that may have resulted from using an online survey. Participants had no face-to-face contact with the researcher during the course of their participation in the study; of course, this is also a limitation of any anonymous

study, whether it is conducted via picking up and dropping off questionnaires from an unmanned office in the Department of Psychology or by soliciting respondents from a newspaper advertisement after which study materials are mailed to and from the parties involved. Interestingly, despite this study being conducted exclusively online, the researcher had some contact with participants, in fact, more than was anticipated. Participants emailed the researcher to ask questions; this was particularly the case with respondents obtained through Craigslist advertisements, as they were directed to contact the researcher in order to be sent the necessary links to complete the survey. Perhaps because the researcher personalized as best she could (e.g., if their email contained their name it was used) each email sent to potential participants and not only provided them with instructions, but thanked them for their time, she received a number of emails in return giving feedback about when they planned to complete the survey, questions about the survey, difficulties they had, apologies for not being able to complete the survey as anticipated due to a conflict (e.g., one fellow had been trained to recognize micro-expressions with the METT CD, Ekman, 2003-2006, employed in the study), how interesting they found it, etc. Some provided unsolicited information about themselves (e.g., "Doing your survey put my experiences in perspective and makes them look pretty good!"), while others told the researcher of their educational and career aspirations and why they were interested in completing the survey. It is surmised that the respondents who initiated a "conversation" in the course of participating in the study are regular users of online communication networks (e.g., Facebook), such that completing a psychological study online is still a "personal" experience as long as there is contact with a recognizable person - even if that personalization resulted only from a name on an email and the use of their names in email correspondence around their participation.

Another drawback of an online survey is again related to the physical absence of a researcher at the time the survey is completed. This absence leaves participants without quick access to an individual who can respond to questions they may have about the study. This may have been particularly true for the micro-expressions, as viewing them separately from the main survey (e.g., blip.tv versus Survey Monkey); having to use a printed 'worksheet' to record responses; and then having to transfer those responses to the Survey Monkey survey was awkward and perhaps confusing for some participants. Additionally, the micro-expression streaming video clips were accompanied by very brief instructions; that is, watch the clip and choose which of the 7 universal facial expressions you think you saw. Feedback was received as to the difficulty inherent in the task; the speed with which the expressions were presented; and participant concerns that they were not choosing the 'right answer'. It was decided at the outset that this information and any other information that might assist participants in getting the 'right answer' would render the test less valid, as the micro-expressions are inherently difficult. However, if the task was done in a laboratory, these concerns could have been dealt with immediately (e.g., with the response, yes, they are difficulty, just do your best or similar), rather than leaving the participant in a position where they may have 'given up" and randomly responded, or viewed the images more than once, which was possible, in an attempt to get the right answer. Additionally, if all participants had viewed the micro-expression on one computer, the presentation time, mentioned later as a difficulty, could have been controlled.

Another possible drawback to collecting data online was again related to the absence of a researcher during the process; in this case when debriefing the participant. While participants were provided with a comprehensive debriefing form at the end of the online survey, and were encouraged to contact the researcher if any aspect of the study proved troubling, it may have

been that the telephone and email options available to participants were barriers to participants asking for assistance if the online debriefing was insufficient. To date, none of the participants have contacted the researchers for additional assistance, which is positive but there is no way of knowing with an online study whether a participant found the material distressing, as individuals were not debriefed in person. Obviously, data collection takes place in manners similar to this all the time (e.g., take away questionnaires that are subsequently left in a 'drop box'), which would result in the same concerns; yet somehow online data collection depersonalizes the process even more, as despite earlier comments made about the level of communication with some participants this level of communication was not established with all participants.

As mentioned earlier, despite the anonymity and distance inherent in online data collection interesting and personal connections were made during this process. The researcher had many expressions of kindness from absolute strangers expressing an interest in participating because "I want to help you graduate"; this in response to a straightforward advertisement on Craigslist looking for volunteers to help with dissertation research. When along with the required information, an expression of gratitude was passed along to one such potential participant it transpired that this individual had graduate school aspirations in forensic psychology! Just a small 'it's a small world" story to personalize this project.

Measures

All measures but the Micro-expression facial images (METT; Ekman, 2003-2206) were self-report measures; therefore there is the risk that participants may not have been completely truthful in their responses, especially when reporting their antisocial (e.g., SRP-III) or violent acts (e.g., CTS2). As mentioned earlier, self-report measures of EI such as the EQ-i are criticized as being measures of respondents' perceptions of themselves and may not be reflective

of their actually abilities or acts; similarly, the micro-expressions task represents only one branch of EIA, as it is conceived of by researchers (e.g., Mayer & Salovey, 1997).

The length of the measures individually, and certainly in total, and the amount of time necessary to complete the survey, may have impacted participation; not only the rate of completion of the entire survey, but in quality of responses as participants approached the end of the survey. This limitation was likely exacerbated by the fixed presentation of the measures on Survey Monkey, which did not allow measures to be presented in random order. As a consequence, the last measure of the survey, and one of the longest, the EQ-i, had the worst completion rate at N=156 versus N=197 for the micro-expressions and SRP-III, the shortest and second and third measures in the survey, and N=195 for the CTS2, the fourth measure in the survey.

Participants' familiarity with technology and online computer use (e.g., accessing links), as well as how up-to-date their computer hardware and software were, likely impacted participation on two possible levels. One level was the time necessary to complete the survey as a person fully versed in the use of a computer and comfortable with things like "links" could easily do the survey in the advertised 35 minutes. However, if participants were less computer literate or were prone to thinking through each question, the survey had the potential to take much longer than 35 minutes. Initially it was possible for participants to cease doing the survey before having completed it and to return at another time to do so; however, this limited participation in a given household to one participant per computer, something that was commented on by several participants prompting a change. The change meant that more than one person could complete the survey on a single computer; however, there was a 'cost' involved in this – namely, once the online survey was commenced, it had to be completed in one sitting.

There appeared to be a small increase in the number of people who started the survey, but did not complete it after this change was instituted.

The second impact of technology on the study involved the use of Blip.tv to 'stream' the micro-expressions (METT; Ekman, 2003-2006), which were employed as a measure of abilitybased emotional intelligence. As it turns out, the computer used by participants to access blip.tv and stream the micro-expressions impacted the presentation time of the images, such that while the micro-expressions were set up on blip.tv to present at the recommended rate of 1/30th of a second (personal communication, Ekman, 2008), individual computers and their 'speed' impacted the actual speed at which participants viewed the micro-expressions, slowing down the presentation time below that recommended by Ekman (2008). This may explain in part why the Cronbach alphas for the micro-expressions were much lower than is acceptable, thereby reducing the validity of findings involving EIA. This was discussed in the preceding interpretation section of this chapter.

Implications of Findings

The results obtained in this study suggest that we already know two of the most powerful predictors of relationship conflict: psychopathy and a history of childhood maltreatment experiences. Being male is also important. Emotional intelligence had a negligible impact on relationship conflict, which is contrary to Winters et al.'s (2004) findings; however, their research was done with a sample of men known to be relationally violent. However, the finding that EI has little bearing on relationship conflict is in agreement with Swift's (2002) unpublished dissertation findings, which were similarly made on the basis of a sample of relationship conflict men. Swift (2002) found that anger and hostility were more predictive of relationship conflict

then was EI; hence this research extends his findings to a community-based sample, bearing in mind that it is not a purely random sample and results cannot be generalized.

As this research idea was born in a prison, while working directly with violent men, the finding that EI has little predictive validity when it comes to relationship violence is disappointing, as it was thought that additional emotional education could be incorporated into treatment programs if EI was predictive of violence. However, this research does confirm what we already know in the forensic context: being psychopathic and having a history of childhood maltreatment increases males' risk for violence whether in the community or in a forensic setting.

Recommendations for Future Research

The finding that psychopathy predicts relationship conflict in the context of a romantic relationship in a community-based sample of men and women warrants further research with larger and more random community-based samples. Given the finding that high psychopathy scores are more predictive of relationship conflict than are low psychopathy scores, at least when the SRP-III is the instrument used to measure psychopathy (or psychopathic traits), this finding should be replicated with the SRP-III and perhaps with alternative measures of psychopathy used in non-forensic samples.

Given that a history of childhood maltreatment experiences, especially physical abuse experiences, were found to be predictive of relationship conflict in this community-based sample, this too warrants further research, particularly with respect to its utility in communitybased interventions.

Although EI did not prove predictive of relationship conflict in this study, this could be due to the instruments used to measure EI and does not mean that the study of these variable

should not be replicated with other measures of EI and in alternative populations, such as offender populations. As already indicated, Winters et al. (2004) found significant differences in relational violence when they compared men known to have committed violent acts against partners to university students. On this basis, further investigation in that context has some merit.

This research did little to edify the ongoing debate between EIA and EIT due to low alphas obtained for the micro-expressions, and the suitability of the EQ-i as a measure of EIT. Whether the low alphas obtained for the micro-expressions are indicative of a problem with their use in this study (e.g., presentation times) alone, or with their use as a measure of specific-ability emotional intelligence in general, is unknown and merits further investigation, in both community and forensic populations.

The finding that EI is not predictive of relationship conflict is instinctively difficult for this researcher to accept given my experience working directly with violent offenders; however, this association has now been explored with the EQ-i, a measure of EIT, and with the MEIS, Mayer, Salovey and Caruso's (1997) EIA measure (Swift, 2002) and has been born out with both. This tells us nothing definitive; however, if one thinks, as this researcher continues to, that there is an association that may be helpful to understanding relationship conflict in some contexts (e.g., Forensic contexts) then perhaps further research of a similar nature should be attempted with different measures of both emotional intelligence and relationship conflict.

It also suggests, at least to this researcher, that those on the forefront of emotional intelligence research should continue to refine their means of measuring it; rather than continuing to debate whether or not emotional intelligence is an ability-based form of intelligence or a trait-based form of intelligence or mixed model of intelligence, as based on the

literature review done for this study, both appear to have merit, at least in some contexts (e.g., workplace; school) and with predicting some outcomes (e.g., ability to be a team-player; academic success).

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APPENDIX A

Dear Friends, Family, Colleagues and Other Potential Participants,

As many of you know, I have been working on my dissertation for what seems like forever! The good news: I have finally reached the data collection stage and to this end I am hoping for your help!

- What do I need from you? Complete an anonymous <u>online</u> survey comprised of questionnaires and the identification of facial expressions.
- What for? My dissertation research project, which is looking at the relationship between emotional intelligence and relationship conflict.
- What is Emotional Intelligence? Our ability to understand and manage our own emotions and those of others around us.
- **Can anyone participate?** Almost anyone. The only conditions are that you must be 18 years old or older and have been in some form of romantic relationship at some point in your life. You DO NOT have to be in a relationship currently.
- How long will it take? About 35 minutes, all on the computer.
- What if that's too much time all at once? It can be completed over more than one sitting.
- When do I need it by? July 16, 2008
- Is there anything unique about the study? Yes. Not only has this topic not been researched; my data collection method is "cutting edge", as I am doing 100% of my data collection online. Plus I am recruiting participants like you from the community at large rather than limiting my sample to 1st and 2nd year university students. This is very important, especially because life experience and relationship experience can improve emotional intelligence.
- What's in it for you? An individual assessment of your Emotional Intelligence. This cannot be done in tandem with collecting my data, as scoring and communicating your scores would violate confidentiality; however, if you are interested in an assessment, please contact me and we will make individual arrangements for this to be done. Typically an evaluation of your emotional intelligence would cost about \$25. These evaluations are often done in the corporate world to evaluate management and/or team potential, so having an assessment done outside that context can give you a 'heads up' on anything that might need improving.
- Is there anything else you can do? Yes! Thank you for asking. If you enjoyed participating in this study, <u>please forward this email on to anyone in your circle that might be</u> <u>interested in participating</u>!
- How to get started!
- 1. <u>Open</u> and <u>print</u> the one page attachment entitled "micro-expression worksheet" that accompanies this email. This is an 'answer sheet' on which you will record your responses when viewing 28 micro-expressions. Later you will transfer this information to the online survey.
- 2. To <u>view</u> the 28 micro-expressions <u>open http://dsirkia.blip.tv/</u> your task is to decide which of the seven universal facial expressions you are seeing: Happy, sad, anger, disgust, fear, contempt, surprise. Record your responses on the 'answer sheet' you printed. You may view the micro-expressions more than once if you'd like.
- To <u>complete</u> the main survey <u>open</u> <u>http://www.surveymonkey.com/s.aspx?sm=ybZp83qQ5u%2fGrERKJXZ0RQ%3d%3d</u> <u>Enter</u> the <u>password</u> 'thisistheend' to access the survey. Once you have gained access, instructions will guide you through the survey.
- 4. When you get to the micro-expression response page, please carefully transfer your answers, which you recorded earlier on the 'answer sheet' you printed out.

- 5. Contact me at this email address to arrange an individual assessment of your emotional intelligence, if you are interested.
- 6. Contact me in late September 2008 for research results, if you are interested.

If you have any difficulties completing this survey, please contact me and let me know what problems arose for you. I will then rectify the problem immediately. Thank you in advance for your help; I really appreciate it!

Sincerely,

Diane Sirkia, MA Ph.D. Candidate University of British Columbia Department of Psychology Tel:

APPENDIX B

Online Study Needs Participants (Ontario)

Reply to: **Distribution for the set of the s**

University of British Columbia Ph.D. candidate seeking participants to take part in dissertation study looking at Emotional Intelligence and Relationship Conflict. The study is completely confidential and is conducted 100% online.

Who is eligible to participate? Anyone 18 years or older who has been in a romantic or sexual relationship at some point in their life.

What do I need from you? About 35 minutes of your time - all on your computer!

What do you get in return? A FREE assessment of your Emotional Intelligence using an Internationally validated measure widely used in business, vocational and personal contexts and which would usually cost about \$25 to have done.

What do you do to participate? Email me for full details!

- Location: Ontario
- it's NOT ok to contact this poster with services or other commercial interests

PostingID: 779482082

APPENDIX C

Hi Julia,

I really appreciate your interest in my survey and am providing all the information you'll need in this email. It's pretty straightforward, but if you need to ask a question about the process, just let me know and I will be happy to help you. If you know anyone else that might be interested in participating, please feel free to forward this email on to them as well.

Thank you again.

Diane

What do I need from you? Complete an anonymous <u>online</u> survey comprised of questionnaires and the identification of facial expressions.

- What for? My dissertation research project, which is looking at the relationship between emotional intelligence and relationship conflict.
- What is Emotional Intelligence? Our ability to understand and manage our own emotions and those of others around us.
- **Can anyone participate?** Almost anyone. The only conditions are that you must be 18 years old or older and have been in some form of romantic relationship at some point in your life. You DO NOT have to be in a relationship currently.
- How long will it take? About 35 minutes, all on the computer.
- When do I need it by? August 11, 2008
- Is there anything unique about the study? Yes. Not only has this topic not been researched; my data collection method is "cutting edge", as I am doing 100% of my data collection online. Plus I am recruiting participants like you from the community at large rather than limiting my sample to 1st and 2nd year university students. This is very important, especially because life experience and relationship experience can improve emotional intelligence.
- What's in it for you? An individual assessment of your Emotional Intelligence. This cannot be done in tandem with collecting my data, as scoring and communicating your scores would violate confidentiality; however, if you are interested in an assessment, please contact me and we will make individual arrangements for this to be done. Typically an evaluation of your emotional intelligence would cost about \$25. These evaluations are often done in the corporate world to evaluate management and/or team potential, so having an assessment done outside that context can give you a 'heads up' on anything that might need improving.
- Is there anything else you can do? Yes! Thank you for asking. If you enjoyed participating in this study, please forward this email on to anyone in your circle that might be interested in participating!
- How to get started!
- 1. **Open** and **print** the one page attachment entitled "micro-expression worksheet" that accompanies this email. This is an 'answer sheet' on which you will record your responses when viewing 28 micro-expressions. Later you will transfer this information to the online survey. Two versions are provided, the .docx version is a very new version of Word that many cannot open. The .doc version is an older version of Word that everyone seems able to open.
- To <u>view</u> the 28 micro-expressions <u>open http://dsirkia.blip.tv/</u> Your task is to decide which of the seven universal facial expressions you are seeing: Happy, sad, anger, disgust, fear, contempt, surprise. Record your responses on the 'answer sheet' you printed. You may view the micro-expressions more than once if you'd like.

- To <u>complete</u> the main survey <u>open</u> <u>http://www.surveymonkey.com/s.aspx?sm=ybZp83qQ5u%2fGrERKJXZ0RQ%3d%3d</u> <u>Enter</u> the <u>password</u> 'thisistheend' to access the survey. Once you have gained access, instructions will guide you through the survey.
- 4. When you get to the micro-expression response page, please carefully transfer your answers, which you recorded earlier on the 'answer sheet' you printed out.
- 5. Contact me at this email address to arrange an individual assessment of your emotional intelligence, if you are interested.
- 6. Contact me in late September 2008 for research results, if you are interested.

If you have any difficulties completing this survey, please contact me and let me know what problems arose for you. I will then rectify the problem immediately. Thank you in advance for your help; I really appreciate it!

Sincerely,

| Diane Sirkia, MA | |
|-------------------------|----------|
| Ph.D. Candidate | |
| University of British C | Columbia |
| Department of Psych | ology |
| Tel: | 0, |
| Email: 1 | |

APPENDIX D

CMIS-SF (Briere, 1992)

The following questions ask about things that may have happened to you in the past. Please answer all of the questions that you can, as honestly as possible.

- 1. Before age 17, did any parent, step-parent or foster-parent ever have problems with drugs or alcohol that lead to medical problems, divorce or separation, being fired from work, or being convicted for intoxication in public or while driving? Check all that apply.
 - Biological or adoptive mother?
 - Biological or adoptive father?
 - Step-mother?
 - Step-father?
 - Foster mother?
 - Foster father?
 - Grandmother?
 - Grandfather?
 - Other?
 - Didn't happen.
- 2. How old were you when it started?
 - Less than 8 years old?
 - 9-12
 - 13-15
 - 16 or older
 - Didn't happen
- 3. How old were you when it stopped?
 - Less than 8 years old?
 - 9-12
 - 13-15
 - 16 or older
 - Didn't happen
 - Still hasn't stopped
- 4. Before age 17, did you ever see one of your parents or parent substitutes hit or beat up your other parent?
 - Yes
 - No

- 5. If yes, who hit or beat who?
 - Father figure beat mother figure
 - Mother figure beat father figure
 - Father figure and mother figure beat each other
 - Not applicable
- 6. If you answered yes to #4, do you recall if any of these incidents resulted in someone needing medical care or the police being called?
 - Yes
 - No
 - Not applicable
- 7. Before age 17, did you ever overhear your parents or parent figures argue or yell at each other?
 - No
 - Less than once a month
 - 4 to 8 times a month
 - 9 to 12 times a month
 - 13 to 20 times a month
 - Daily
- 8. If you answered yes to #7, who yelled at who?
 - Not applicable
 - Mother or mother figure at father
 - Father or father figure at mother
 - They yelled at each other
- 9. If you answered yes to #7, did you ever feel like you were in the "middle" of your parents' relationship? That is, were you asked to take sides or did you try to help them resolve their problems?
 - Yes
 - No
- 10. If you answered yes to #7, how old were you when this started?
 - Less than 8 years old
 - 9 to 12
 - 13 to 15
 - 16 or older
 - Didn't happen

- 11. On average, before the age of 8, how much did you feel your father or father figure loved and cared about you?
 - Not at all
 - Somewhat
 - Not sure
 - He loved me
 - He loved me very much
 - Not applicable
- 12. On average, before the age of 8, how much did you feel your mother or mother figure loved and cared about you?
 - Not at all
 - Somewhat
 - Not sure
 - He loved me
 - He loved me very much
 - Not applicable
- 13. On average, how much did you feel your father or father figure loved and cared about you after age 8?
 - Not at all
 - Somewhat
 - Not sure
 - He loved me
 - He loved me very much
 - Not applicable
- 14. On average, how much did you feel your mother or mother figure loved and cared about you after age 8?
 - Not at all
 - Somewhat
 - Not sure
 - He loved me
 - He loved me very much
 - Not applicable

- 15. When you were 16 or younger, did the following happen to you? Answer for your parent(s) or parent substitute(s) and check all that apply.
 - Yell at you
 - Insult you
 - Criticize you
 - Try to make you feel guilty
 - Ridicule or humiliate you
 - Embarrass you in front of others
 - Make you feel like you were a bad person
 - These things did not happen to me
- 16. Before age 17, did your parent(s) or parent substitute(s) ever do any of the following to you on purpose? Check all that apply.
 - Hit you with their hand
 - Hit you with a soft object (e.g., slipper)
 - Hit you with a hard object (e.g., ruler, stick, spoon)
 - Punch you with a closed fist
 - Cut you
 - Burn you
 - Push you down
 - Scratch you
 - Pinch you
 - Break bones
 - Break teeth
 - Other
 - These things did not happen to me
- 17. If things listed in #16 happened to you, who was responsible? Check all that apply.
 - Not applicable
 - Mother
 - Mother substitute
 - Father
 - Father substitute
 - Mother's non-live-in partner
 - Father's non-live-in partner

18. If things in #16 happened to you, how old were you when they started?

- Not applicable
- Under 5 years old
- 6 to 8
- 9 to 12
- 13 to 15
- 16 or older

19. If things in #16 happened to you, how older were you when they stopped?

- Not applicable
- Under 5 years old
- 6 to 8
- 9 to 12
- 13 to 15
- 16 or older
- 20. Were you ever hurt so badly that you had to go to the hospital?
 - Yes
 - No
- 21. Before age 17, did anyone ever kiss you in a sexual way, or touch your body in a sexual way, or make you touch their sexual parts, when you DID NOT WANT THEM TO?
 - Yes
 - No
- 22. How old were you when this happened?
 - Not applicable
 - Under 5 years old
 - 6 to 8
 - 9 to 12
 - 13 to 15
 - 16 or older
- 23. If you answered yes to #21, how many times did it happen?
 - Once
 - Less than five times
 - Six to 10 times
 - Greater than 10 times
 - Not applicable

- 24. If you answered yes to #21, who did this to you or had you do it to them? Check all that apply.
 - Father
 - Father figure
 - Mother
 - Mother figure
 - Brother
 - Sister
 - Aunt
 - Uncle
 - Male cousin
 - Female cousin
 - Male babysitter
 - Female babysitter
 - Male family friend
 - Female family friend
 - Male school friend
 - Female school friend
 - Male stranger
 - Female stranger
 - Male teacher, coach, doctor, dentist, religious person
 - Female teacher, coach, doctor, dentist, religious person
 - Male other
 - Female other
 - Not applicable
- 25. Was this person or these people older than you by five years or more?
 - Yes
 - No
 - Some were but others weren't
 - Not applicable
- 26. Was physical force ever used?
 - Yes
 - No
 - Not applicable

- 27. Before age 17, did anyone ever have oral, anal, or vaginal intercourse with you, or insert a finger or object into your anus or vagina when YOU DID NOT WANT THEM TO?
 - Not applicable
 - Yes
 - No
- 28. How old were you when this happened?
 - Not applicable
 - Under 5 years old
 - 6 to 8
 - 9 to 12
 - 13 to 15
 - 16 or older

29. If you answered yes to #27, how many times did it happen?

- Once
- Less than five times
- Six to 10 times
- Greater than 10 times
- Not applicable

30. If you answered yes to #27, who did this to you? Check all that apply.

- Father
- Father figure
- Mother
- Mother figure
- Brother
- Sister
- Aunt
- Uncle
- Male cousin
- Female cousin
- Male babysitter
- Female babysitter
- Male family friend
- Female family friend
- Male school friend
- Female school friend
- Male stranger
- Female stranger

- Male teacher, coach, doctor, dentist, religious person
- Female teacher, coach, doctor, dentist religious person
- Male other
- Female other
- Not applicable
- 31. Was this person or these people older than you by five years or more?
 - Yes
 - No
 - Some were but others weren't
 - Not applicable
- 32. Was physical force ever used?
 - Yes
 - No
 - Not applicable
- 33. To the best of your knowledge, before age 17 were you ever sexually abused?
 - Yes
 - No
- 34. To the best of your knowledge, before age 17 were you ever physically abused?
 - Yes
 - No

APPENDIX E

Self-Report Psychopathy Scale - III

Williams, Nathanson & Paulhus, 2003

Instructions: Participants are to read each of the 40 items below and select the response most appropriate for them. Possible responses are:

1=disagree strongly; 2=disagree; 3=neither disagree or agree; 4=agree; 5=agree strongly.

- 1. I have shoplifted.
- 2. I have had sex with someone against her or her will.
- 3. I have avoided paying for things.
- 4. I have cheated on school tests.
- 5. I have been arrested.
- 6. I have plagiarized a school essay.
- 7. I have been involved in delinquent gang activity.
- 8. I have stolen a motor vehicle.
- 9. I have broken into or vandalized a building.
- 10. I have tried to seriously harm someone physically.
- 11. I like to change jobs fairly often.
- 12. I have done something dangerous for the thrill of it.
- 13. I enjoy taking chances.
- 14. I would be good at a dangerous job.
- 15. I have often broken appointments.
- 16. I don't enjoy driving at high speed.
- 17. I enjoy drinking and doing wild things.
- 18. Rules are made to be broken.
- 19. I don't enjoy gambling for high stakes.
- 20. I'm a rebellious person.
- 21. I think I could beat a lie detector.
- 22. I get a kick out of "conning" someone.
- 23. I don't think of myself as tricky or sly.
- 24. I almost never feel guilty.
- 25. It's fun to see how far you can push people.
- 26. People can usually tell if I'm lying.
- 27. Conning people gives me the shakes.
- 28. When I do something wrong I feel guilty.
- 29. I find it easy to manipulate people.
- 30. I am always impressed by a clever fraud.
- 31. I am careful about what I say to people.
- 32. I get in trouble for the same things.
- 33. I am very good at most things I try to do.
- 34. Not hurting others' feelings is important.
- 35. I am a kind person.
- 36. I am a soft-hearted person.
- 37. I am the most important person in the world.
- 38. I like to hurt those close to me.
- 39. I try not to be rude to others.
- 40. I'm not afraid to step on others.

APPENDIX F

The Revised Conflict Tactics Scales (CTS2, Form A)

RELATIONSHIP BEHAVIOURS

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please click on the number that corresponds to how many times you did each of these things in the past year, and how many times your partner did them in a given year. If you or your partner did not do one them, please select "This has never happened".

How often did this happen?

| 1 = Once in a year | 5 = 11 - 20 times in a year |
|----------------------------|----------------------------------|
| 2 = Twice in a year | 6 = More than 20 times in a year |
| 3 = 3 - 5 times in a year | |
| 4 = 6 - 10 times in a year | 0 = This has never happened |

| 1. | I showed my partner I cared even though we disagreed. | 123456 | 0 |
|-----|---|--------|---|
| 2. | My partner showed care for me even though we disagreed. | 123456 | 0 |
| 3. | I explained my side of a disagreement to my partner. | 123456 | 0 |
| 4. | My partner explained his or her side of a disagreement to me. | 123456 | 0 |
| 5. | I insulted or swore at my partner. | 123456 | 0 |
| 6. | My partner did this to me. | 123456 | 0 |
| 7. | I threw something at my partner that could hurt. | 123456 | 0 |
| 8. | My partner did this to me. | 123456 | 0 |
| 9. | I twisted my partner's arm or hair. | 123456 | 0 |
| 10 | . My partner did this to me. | 123456 | 0 |
| 11 | . I had a sprain, bruise, or small cut because of a fight with my partner. | 123456 | 0 |
| 12 | . My partner had a sprain, bruise, or small cut because of a fight with me. | 123456 | 0 |
| 13. | . I showed respect for my partner's feelings about an issue. | 123456 | 0 |
| 14. | . My partner showed respect for my feelings about an issue. | 123456 | 0 |
| 15 | . I made my partner have sex without a condom. | 123456 | 0 |
| 16 | . My partner did this to me. | 123456 | 0 |

| 17. I pushed or shoved my partner. | 123456 | 0 |
|---|--------|---|
| 18. My partner did this to me. | 123456 | 0 |
| 19. I used force (like hitting, holding down, or using a weapon) to make | | |
| my partner have oral or anal sex. | 123456 | 0 |
| 20. My partner did this to me. | 123456 | 0 |
| 21. I used a knife or gun on my partner. | 123456 | 0 |
| 22. My partner did this to me. | 123456 | 0 |
| 23. I passed out from being hit on the head by my partner in a fight. | 123456 | 0 |
| 24. My partner passed out from being hit on the head in a fight with me. | 123456 | 0 |
| 25. I called my partner fat or ugly. | 123456 | 0 |
| 26. My partner called me fat or ugly. | 123456 | 0 |
| 27. I punched or hit my partner with something that could hurt. | 123456 | 0 |
| 28. My partner did this to me. | 123456 | 0 |
| 29. I destroyed something belonging to my partner. | 123456 | 0 |
| 30. My partner did this to me. | 123456 | 0 |
| 31. I went to a doctor because of a fight with my partner. | 123456 | 0 |
| 32. My partner went to a doctor because of a fight with me. | 123456 | 0 |
| 33. I choked my partner. | 123456 | 0 |
| 34. My partner did this to me. | 123456 | 0 |
| 35. I shouted or yelled at my partner. | 123456 | 0 |
| 36. My partner did this to me. | 123456 | 0 |
| 37. I slammed my partner against a wall. | 123456 | 0 |
| 38. My partner did this to me. | 123456 | 0 |
| 39. I said I was sure we could work out a problem. | 123456 | 0 |
| 40. My partner was sure we could work it out. | 123456 | 0 |
| 41. I need to see a doctor because of a fight with my partner, but I didn't. | 123456 | 0 |
| 42. My partner needed to see a doctor because of a fight with me, but didn't. | 123456 | 0 |
| 43. I beat up my partner. | 123456 | 0 |
| 44. My partner did this to me. | 123456 | 0 |
| 45. I grabbed my partner. | 123456 | 0 |
| 46. My partner did this to me. | 123456 | 0 |
| 47. I used force (like hitting, holding down, or using a weapon) to make my | | |
| partner have sex. | 123456 | 0 |
| 48. My partner did this to me. | 123456 | 0 |
| 49. I stomped out of the room or house or yard during a disagreement. | 123456 | 0 |
| 50. My partner did this to me. | 123456 | 0 |
| 51. I insisted on sex when my partner did not want to (but did not use physical | 1 | |
| force). | 123456 | 0 |
| 52. My partner did this to me. | 123456 | 0 |
| 53. I slapped my partner. | 123456 | 0 |

| 54. My partner did this to me. | 123456 | 0 |
|---|--------|---|
| 55. I had a broken bone from a fight with my partner. | 123456 | 0 |
| 56. My partner had a broken bone from a fight with me. | 123456 | 0 |
| 57. I used threats to make my partner have oral or anal sex. | 123456 | 0 |
| 58. My partner did this to me. | 123456 | 0 |
| 59. I suggested a compromise to a disagreement. | 123456 | 0 |
| 60. My partner did this to me. | 123456 | 0 |
| 61. I burned or scalded my partner on purpose. | 123456 | 0 |
| 62. My partner did this to me. | 123456 | 0 |
| 63. I insisted my partner have oral or anal sex (but did not use physical force). | 123456 | 0 |
| 64. My partner did this to me. | 123456 | 0 |
| 65. I accused my partner of being a lousy lover. | 123456 | 0 |
| 66. My partner accused me of this. | 123456 | 0 |
| 67. I did something to spite my partner. | 123456 | 0 |
| 68. My partner did this to me. | 123456 | 0 |
| 69. I threatened to hit or throw something at my partner. | 123456 | 0 |
| 70. My partner did this to me. | 123456 | 0 |
| 71. I felt physical pain that still hurt the next day because of a fight with | | |
| my partner. | 123456 | 0 |
| 72. My partner still felt physical pain the next day because of a fight we had. | 123456 | 0 |
| 73. I kicked my partner. | 123456 | 0 |
| 74. My partner did this to me. | 123456 | 0 |
| 75. I used threats to make my partner have sex. | 123456 | 0 |
| 76. My partner did this to me. | 123456 | 0 |
| 77. I agreed to try a solution to a disagreement my partner suggested. | 123456 | 0 |
| 78. My partner agreed to try a solution I suggested. | 123456 | 0 |

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APPENDIX G

BarOn EQ-i®

By Dr. Reuven Bar-On

Introduction

EQ-i ® consists of statements that provide you with an opportunity to describe yourself by indicating the degree to which each statement is true of the way you feel, think, or act most of the time and in most situations. There are five possible responses to each sentence.

- 1- Very seldom true or Not true of me
- 2- Seldom true of me
- 3- Sometimes true of me
- 4- Often true of me
- 5- Very often true of me or True of me

Instructions

Read each statement and decide which *one* of the five possible responses best describes you. Click on the number that corresponds to your answer.

If a statement does not apply to you, respond in such a way that will give the best indication of how you *would* possibly feel, think, or act. Although some of the sentences may not give you all the information you would like to receive, choose the response that seems the best, even if you are not sure. There are no "right" or "wrong" answers and no "good" or "bad" choices. Answer openly and honestly by indicating how you actually are and *not* how you would like to be or how you would like to be seen. There is no time limit, but work quickly and make sure that you consider and respond to *every* statement.

| 1. | My approach in overcoming difficulties is to move step by step. | 12345 | | | | |
|-----|---|-------|--|--|--|--|
| 2. | . It's hard for me to enjoy life. | | | | | |
| 3. | I prefer a job in which I'm told pretty much what to do. | 12345 | | | | |
| 4. | I know how to deal with upsetting problems. | 12345 | | | | |
| 5. | I like everyone I meet. | 12345 | | | | |
| 6. | I try to make my life as meaningful as I can. | 12345 | | | | |
| 7. | It's fairly easy for me to express feelings. | 12345 | | | | |
| 8. | I try to see things as they really are, without fantasizing or | | | | | |
| | daydreaming about them. | 12345 | | | | |
| 9. | I'm in touch with my emotions. | 12345 | | | | |
| 10. | I'm unable to show affection. | 12345 | | | | |
| 11. | I feel sure of myself in most situations. | 12345 | | | | |
| 12. | 12. I have a feeling that something is wrong with my mind. 1234 | | | | | |

| 13. It is a problem controlling my anger. | 12345 |
|---|-----------|
| 14. It's difficult for me to begin new things. | 12345 |
| 15. When faced with a difficult situation, I like to collect all the | |
| information about it that I can. | 12345 |
| 16. I like helping people. | 12345 |
| 17. It's hard for me to smile. | 12345 |
| 18. I'm unable to understand the way other people feel. | 12345 |
| 19. When working with others, I tend to rely more on their | |
| ideas than my own. | 12345 |
| 20. I believe that I can stay on top of tough situations. | 12345 |
| 21. I really don't know what I'm good at. | 12345 |
| 22. I'm unable to express my ideas to others. | 12345 |
| 23. It's hard for me to share my deep feelings with others. | 12345 |
| 24. I lack self-confidence. | 12345 |
| 25. I think I've lost my mind. | 12345 |
| 26. I'm optimistic about most things I do. | 12345 |
| 27. When I start talking, it is hard to stop. | 12345 |
| 28. It's hard for me to make adjustments in general. | 12345 |
| 29. I like to get an overview of a problem before trying to solve it. | 12345 |
| 30. It doesn't bother me to take advantage of people, | |
| especially if they deserve it. | 1 2 3 4 5 |
| 31. I'm a fairly cheerful person. | 1 2 3 4 5 |
| 32. I prefer others to make decisions for me. | 12345 |
| 33. I can handle stress, without getting too nervous. | 12345 |
| 34. I have good thoughts about everyone. | 12345 |
| 35. It's hard for me to understand the way I feel. | 12345 |
| 36. In the past few years, I've accomplished little. | 12345 |
| 37. When I'm angry with others, I can tell them about it. | 12345 |
| 38. I have had strange experiences that can't be explained. | 12345 |
| 39. It's easy for me to make friends. | 12345 |
| 40. I have good self-respect. | 12345 |
| 41. I do very weird things. | 12345 |
| 42. My impulsiveness creates problems. | 12345 |
| 43. It's difficult for me to change my opinion about things. | 12345 |
| 44. I'm good at understanding the way other people feel. | 12345 |
| 45. When facing a problem, the first thing I do is stop and think. | 12345 |
| 46. Others find it hard to depend on me. | 12345 |
| 47. I am satisfied with my life. | 12345 |
| 48. It's hard for me to make decisions on my own. | 12345 |
| 49. I don't hold up well under stress. | 12345 |

| 50. I don't do anything bad in my life. | 12345 |
|---|-------|
| 51. I don't get enjoyment from what I do. | 12345 |
| 52. It's hard to express my intimate feelings. | 12345 |
| 53. People don't understand the way I think. | 12345 |
| 54. I generally hope for the best. | 12345 |
| 55. My friends can tell me intimate things about themselves. | 12345 |
| 56. I don't feel good about myself. | 12345 |
| 57. I see these strange things that others don't see. | 12345 |
| 58. People tell me to lower my voice in discussions. | 12345 |
| 59. It's easy for me to adjust to new conditions. | 12345 |
| 60. When trying to solve a problem, I look at each possibility and | |
| then decide on the best way. | 12345 |
| 61. I would stop and help a crying child find his or her parents, | |
| even if I had to be somewhere else at the same time. | 12345 |
| 62. I'm fun to be with. | 12345 |
| 63. I'm aware of the way I feel. | 12345 |
| 64. I feel that it's hard for me to control my anxiety. | 12345 |
| 65. Nothing disturbs me. | 12345 |
| 66. I don't get that excited about my interests. | 12345 |
| 67. When I disagree with someone, I'm able to say so. | 12345 |
| 68. I tend to fade out and lose contact with what happens around me. | 12345 |
| 69. I don't get along well with others. | 12345 |
| 70. It's hard for me to accept myself just the way I am. | 12345 |
| 71. I feel cut off from my body. | 12345 |
| 72. I care what happens to other people. | 12345 |
| 73. I'm impatient. | 12345 |
| 74. I'm able to change old habits. | 12345 |
| 75. It's hard for me to decide on the best solution when solving problems. | 12345 |
| 76. If I could get away with breaking the law in certain situations, I would. | 12345 |
| 77. I get depressed. | 12345 |
| 78. I know how to keep calm in different situations. | 12345 |
| 79. I have not told a lie in my life. | 12345 |
| 80. I'm generally motivated to continue, even when things get difficult. | 12345 |
| 81. I try to continue and develop those things that I enjoy. | 12345 |
| 82. It's hard for me to say "no" when I want to. | 12345 |
| 83. I get carried away with my imagination and fantasies. | 12345 |
| 84. My close relationships mean a lot to me and to my friends. | 12345 |
| 85. I'm happy with the type of person I am. | 12345 |
| 86. I have strong impulses that are hard to control. | 12345 |
| 87. It's generally hard for me to make changes in my daily life. | 12345 |

| 88. Even when upset, I'm aware of what's happening to me. | | | | | |
|--|---|-----------|--|--|--|
| 89. In handling situations that arise, I try to think of as many | | | | | |
| appro | aches as I can. | 12345 | | | |
| 90. I'm al | ble to respect others. | | | | |
| 91. I'm ne | ot that happy with my life. | 12345 | | | |
| 92. I'm m | ore of a follower than a leader. | 1 2 3 4 5 | | | |
| 93. It's ha | ard for me to face unpleasant things. | 12345 | | | |
| 94. I have | e not broken a law of any kind. | 12345 | | | |
| 95. I enjo | y those things that interest me. | 1 2 3 4 5 | | | |
| 96. It's fa | irly easy for me to tell people what I think. | 1 2 3 4 5 | | | |
| 97. I tend | to exaggerate. | 12345 | | | |
| 98. I'm se | ensitive to the feelings of others. | 12345 | | | |
| 99. I have | good relations with others. | 12345 | | | |
| 100. | I feel comfortable with my body. | 1 2 3 4 5 | | | |
| 101. | I am a very strange person. | 1 2 3 4 5 | | | |
| 102. | I'm impulsive. | 12345 | | | |
| 103. | It's hard for me to change my ways. | 12345 | | | |
| 104. | I think it's important to be a law-abiding citizen. | 12345 | | | |
| 105. | I enjoy weekends and holidays. | 12345 | | | |
| 106. | I generally expect things will turn out all right, despite | | | | |
| | setbacks from time to time. | 1 2 3 4 5 | | | |
| 107. | I tend to cling to others. | 12345 | | | |
| 108. | I believe in my ability to handle most upsetting problems. | 12345 | | | |
| 109. | I have not been embarrassed for anything that I've done. | 12345 | | | |
| 110. | I try to get as much as I can out of those things that I enjoy. | 1 2 3 4 5 | | | |
| 111. | Others think that I lack assertiveness. | 12345 | | | |
| 112. | I can easily pull out of daydreams and tune into the reality | | | | |
| | of the immediate situation. | 12345 | | | |
| 113. | People think that I'm sociable. | 12345 | | | |
| 114. | I'm happy with the way I look. | 1 2 3 4 5 | | | |
| 115. | I have strange thoughts that no one can understand. | 12345 | | | |
| 116. | It's hard for me to describe my feelings. | 12345 | | | |
| 117. | I've got a bad temper. | 12345 | | | |
| 118. | I generally get stuck when thinking about different ways | | | | |
| | of solving problems. | 12345 | | | |
| 119. | It's hard for me to see people suffer. | 12345 | | | |
| 120. | I like to have fun. | 12345 | | | |
| 121. | I seem to need other people more than they need me. | 12345 | | | |
| 122. | I get anxious. | 1 2 3 4 5 | | | |
| 123. | I don't have bad days. | 12345 | | | |

| 124. | I avoid hurting other people's feelings. | 12345 |
|------|--|-------|
| 125. | I don't have a good idea of what I want to do in life. | 12345 |
| 126. | It's difficult for me to stand up for my rights. | 12345 |
| 127. | It's hard for me to keep things in the right perspective. | 12345 |
| 128. | I don't keep in touch with friends. | 12345 |
| 129. | Looking at both my good points and bad points, I feel | |
| | good about myself. | 12345 |
| 130. | I tend to explode with anger easily. | 12345 |
| 131. | It would be hard for me to adjust if I were forced | |
| | to leave my home. | 12345 |
| 132. | Before beginning something new, I usually feel that I'll fail. | 12345 |
| 133. | I responded openly and honestly to the above sentences. | 12345 |
| | | |

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APPENDIX H

Demographic Information

This information will be used for sorting purposes only.

- 1. Age
 - •
- 2. Sex
 - Male
 - Female
- 3. Race
 - Caucasian
 - Asian
 - African Canadian
 - African American
 - Indo Canadian
 - Indo American
 - Hispanic
 - Other
- 4. Where were you born?
 - Canada
 - USA
 - United Kingdom
 - Western Europe
 - Eastern Europe
 - Mexico
 - Central America
 - South America
 - Africa
 - India
 - Hong Kong
 - Taiwan
 - Korea
 - Other
- 5. Where do you presently live?
 - Canada
 - USA
 - United Kingdom
 - Western Europe

- Eastern Europe
- Mexico
- Central America
- South America
- Africa
- India
- Hong Kong
- Taiwan
- Korea
- Other
- 6. How long have you lived here?
 - Less than one year
 - One to three years
 - Three to five years
 - More than five years
- 7. How many years of formal education have you completed?
 - Less than grade 12
 - High school graduate
 - Some college
 - Trade school or College diploma (i.e., 2 year program)
 - Some university
 - University graduate (e.g., B.A., B.Sc., etc)
 - Masters or professional degree (e.g., lawyer, accountant, engineer)
 - Ph.D. or equivalent (e.g., dentist, MD)
- 8. Sexual preference?
 - Heterosexual
 - Homosexual
 - Bisexual
- 9. You will be asked questions about a romantic relationship that you have been involved in. Choose a relationship that you will use to answer the questions in the study. How long have you been or were you in that relationship?
 - Less than one year
 - 1 to 2 years
 - 2 to 3 years
 - 3 to 5 years
 - More than 5 years

APPENDIX I

Emotional Intelligence and Relationship Conflict Study

Micro-expression Worksheet

<u>Instructions</u>: This worksheet is to be used in conjunction with the facial expressions you will find at <u>http://dsirkia.blip.tv</u>/. Please decide which of the emotions listed you are viewing and record your answers on this worksheet when viewing the expressions on blip.tv. After you have finished doing this manually, please go to my online survey at <u>http://www.surveymonkey.com/s.aspx?sm=ybZp83qQ5u_2fGrERKJXZ0RQ_3d_3d</u> and transfer your responses to the survey when you get to the appropriate page. Thank you.

<u>Note:</u> Please respond to the video clips in the order they are presented and ignore the number you will see with the clip. (e.g., first clip presented is # 1 on this sheet, second is # 2, etc.).

| 1. | Нарру | _ Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
|-----|-------|---------|------|-------------|------------|---------|-----------|
| 2. | Happy | _Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
| 3. | Нарру | _ Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
| 4. | Нарру | _Sad _ | Fear | _ Surprise | Contempt | Anger | _ Disgust |
| 5. | Нарру | _Sad _ | Fear | _Surprise | Contempt | _ Anger | _ Disgust |
| 6. | Нарру | _Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
| 7. | Нарру | _Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
| 8. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 9. | Нарру | _ Sad _ | Fear | _Surprise _ | _ Contempt | _ Anger | _ Disgust |
| 10. | Нарру | _Sad _ | Fear | _Surprise _ | Contempt | _ Anger | _ Disgust |
| 11. | Нарру | _Sad _ | Fear | _Surprise | Contempt | _ Anger | Disgust |
| 12. | Нарру | _ Sad _ | Fear | _Surprise | Contempt | _ Anger | _ Disgust |
| 13. | Нарру | _Sad _ | Fear | _Surprise | Contempt | _ Anger | _ Disgust |
| 14. | Нарру | _ Sad _ | Fear | _Surprise | Contempt | _ Anger | _ Disgust |
| 15. | Happy | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | _ Disgust |
| 16. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 17. | Нарру | _ Sad _ | Fear | _Surprise | Contempt | _ Anger | _ Disgust |
| 18. | Нарру | _Sad _ | Fear | _ Surprise | _ Contempt | _ Anger | Disgust |
| 19. | Нарру | _Sad _ | Fear | _Surprise | Contempt | _ Anger | Disgust |
| 20. | Нарру | _Sad _ | Fear | _ Surprise | Contempt | _ Anger | _ Disgust |
| 21. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 22. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 23. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 24. | Нарру | _Sad | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 25. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |
| 26. | Нарру | _Sad _ | Fear | _Surprise | _ Contempt | _ Anger | Disgust |

| 27. Нарру | Sad | Fear | Surprise | Contempt | Anger | Disgust |
|-----------|-----|------|----------|----------|-------|---------|
| 28. Нарру | Sad | Fear | Surprise | Contempt | Anger | Disgust |

APPENDIX J

Participant Information

Title: The Impact of Emotional Intelligence on Relationship Conflict UBC Ethics #: H08-00184 Principal Investigator: Dr. Jessica Tracy, 604-822-2718 Co-Investigator: Teresa <u>Diane</u> Sirkia, Ph.D. Candidate, Forensic Psychology, University of British Columbia, 604-822-6130 or

You are being invited to participate in a psychological research study examining the relationship between emotional intelligence and relationship conflict. To facilitate ease of participation, the entire study will be conducted via online survey. In addition to this survey, you will need to open'http://dsirkia.blip.tv' in order to view 28 facial expressions that will be briefly displayed. More about this will be described later.

Purpose:

The primary objective of this study is to determine whether there is a relationship between Emotional Intelligence (EI) and the means by which individuals resolve relationship conflict. Emotional intelligence refers to an integrated set of abilities that enable an individual to recognize, use and regulate emotions in themselves, and others, in such a way that they can conduct themselves effectively in their social environments. EI is defined as a "trait" by some researchers, similar to a personality trait, like conscienceiousness, and as an ability by others, similar to 'IQ' or general intelligence. As such, both forms of EI will be measure in this study. In addition to the relationship between EI and relationship conflict, this study will investigate the association between childhood maltreatment experiences (CME) and EI, as some researchers theorize that children who grow up experiencing or witnessing some forms of maltreatment may be more attuned to the emotions of others. Whether or not a relationship exists between EI and psychopathy, which has as it's hallmarks affective (emotional) and interpersonal deficits, will also be explored. Finally, this study will investigate a model that incorporates CME, EI, and psychopathy as predictors of relationship conflict.

Study Eligibility:

In order to be eligible to participate in this study participants must be 18 years old or older and must have been in a romantic relationship at some point in their lives. Participants do NOT have to be in a relationship right now in order to participate. Males and females are welcome to participate and participants' sexual preferences (i.e., heterosexual, homosexual, bisexual) have no bearing on eligibility, although you will be asked to identify your sexual preference(s).

Risks Associated with Participating in the Study:

While there are no physical risks associated with participating in this study, there is a risk that participates who have experienced childhood maltreatment experiences and/or relationship conflict may find recalling these experiences in the context of the study emotionally or psychologically upsetting. If this should happen participants are encouraged to contact the researchers for assistance. More information in this regard is provided at the end of the study, in the 'Debriefing form"; however, participants should feel free to contact the Co-investigator D. Sirkia at 604-822-6130, for via email at free more working with individuals with a history of childhood maltreatment and/or relationship conflict, and can provide assistance and additional referrals if necessary.

Study Procedures:

The entire study will be completed as an online survey. It will take approximately 35 minutes and will involve participants responding to questions about themselves and their relationships. Participants will also be asked to identify facial expressions. The facial expressions will be viewed as 'streaming video' at <u>http://dsirkia.blip.tv</u>. Once you have finished reading this consent form and if you wish to complete the study you will click "Next" on the icon below; this will take you directly to the online survey. By clicking on "Next" and proceeding to the study you have provided your consent to participate.

You are not required to complete the study in one sitting; once you consent to participate by clicking on "Next" you will be able to reaccess and complete the study anytime prior to the entire study being completed. While an exact date is not known, once the required number of participants have completed the study, you will no longer be able to access it online.

Once you have completed the study you will be guided to an online "Debriefing form". This form will provide you with further information about the study and expected results; it will provide you with information should you require assistance from the researchers in the aftermath of completing the survey (see above regarding risk); it will also provide you with information at to where you will be able to access the final results of the study, should that be of interest to you.

Confidentiality:

Your participation in this research study conducted via online survey is completely confidential. No identifying information, such as name, social insurance number, birth date, address, telephone or email address is requested or required. Demographic information (e.g., sex, age, years of education, sexual preference) will be gathered at the outset of the survey; however, the information requested is not any that could traced back to an individual. The survey company being used (i.e., Survey Monkey) is a US company and as such, is subject to US laws, in particular the Patriot Act, which allows authorities access to the records of internet service providers. This survey does not ask for personal identifiers or any information that may be used to identify you. The survey company servers record incoming IP addresses of the computer that you use to access the survey, but not connection is made between your data and your computer's IP address.

In addition to participants not being required to provide identifying information, any information resulting from this research study will be kept strictly confidential. Participant data will be identified only by a participant code number and access to it will be password protected and accessible only to the investigators. All hardcopy data resulting from this study will be kept in a locked filing cabinet, also accessible only to the investigators.

Remuneration:

No remuneration is offered; however, you may contact D. Sirkia if you wish to complete the Emotional Intelligence questionnaire (Bar-On EQ-i) and have it scored for you and the results discussed. This measure is widely used in work places to determine an individual's management potential and usually costs about \$25 to score.

Contact:

If you have any questions or desire further information with respect to this study, you may contact Diane Sirkia at 604-822-6130, **(Structure of Structure of Str**

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598.

Consent:

I understand that my participation in this research study conducted by online survey is entirely voluntary and that I may refuse to participate or withdraw from the study at any time without negative consequence. I further understand that by clicking on the "Next" icon at the bottom of this page I am consenting to participate in this study under the conditions outlined above.

I am able to print a copy of this consent form along with the survey itself for my own records by clicking on the "print copy" icon.

I consent to participate in this study.

APPENDIX K

Debriefing Form

You have just completed a psychological study conducted via online survey to help determine if Emotional Intelligence (EI), Childhood Maltreatment Experiences (CME) and psychopathy are related to how individuals negotiate conflict or disagreement in the context of a romantic relationship. The study measured two forms of EI debated in the literature: 'trait' EI and 'ability' EI. We expect that study results will reveal some convergence of these two forms of EI but do not expect there to be 100% convergence, as 'trait' EI as measured by the Bar-On EQ-i encompasses a broader scope of 'intelligence' than does the ability to recognize the six universal emotions in the form of micro-expressions or very brief glimpses, which is the task used to assess 'ability' EI. It is expected that higher EI, irrespective of whether it is 'trait' or 'ability' EI, will be associated with more functional ways of negotiating relationship conflict, as measured by the CTS2. This study also seeks to determine if there is a relationship between CME and EI. It is expected that there will be a positive correlation between CME and EI; that is, experiencing some form of CME will result in higher EI scores. However, we expect that there will be a point at which too many CME will reduce EI. The relationship between EI and psychopathy is also being explored. It is expected that there will be a negative correlation between psychopathy and EI, such that higher psychopathy scores will result in lower EI scores. Finally, the study will investigate whether a developmental model incorporating CME, EI and psychopathy are predictors of relationship conflict; we expect that they will be.

If you found participating in this study difficult for any reason, for instance because recounting CME or relationship conflict was unsettling or discomforting in any way, please feel free to contact the co-investigator at 604-822-6130, **Conflict Conflict Conflict**

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principal investigator Dr. J. Tracy at 604-822-2718. They are is available to provide you with additional information that may be of assistance, or to assist you in finding resources in your community to provide you with assistance. D. Sirkia has extensive experience working with individuals who have a history of childhood maltreatment and/or relationship conflict and will be able to provide individual assistance to those requiring it. A brief list of resources is provided below, but is not comprehensive. Similarly, if you have other questions or concerns regarding this project, please feel free to contact the investigators at the numbers provided.

Thank you for taking the time to participate in this study. If you are interested in the results of this study, please go to www.psych.ubc.ca/~jyuille/john.html in October 2008. A copy of the debriefing form may be printed for your convenience by selecting the 'print' option below.

Links:

www. collegeofpsychologists.bc.ca (List of those registered to practice psychology in the province of BC)

www.crhspp.ca (Canadian Register of Health Service Providers in Psychology)

UBC Counselling Services - 604-822-3811

www.cmha.ca (Canadian Mental Health Association)

Crisis Intervention & Suicide Prevention Centre of BC – 604-872-3311 or Toll- free at 1-800-784-2433

APPENDIX L

Ancillary Statistics: Part I

Ordinary Least Squares Regression Analyses

Hierarchical multiple regression analysis examined the relationship of the predictor variables of childhood maltreatment experiences (CME; as defined by the presence or absence of physical or sexual abuse in participants' histories), Emotional Intelligence - Trait (EIT; as assessed with the EQ-I; Bar-On, 1997), Emotional Intelligence - Ability (EIA; as assessed through the identification of the seven universal emotions represented as micro-expressions), and self-reported psychopathy (SRP; as assessed on the Self-Report Psychopathy Scale-III) on the dependent variable of relationship conflict, as assessed with four subscales of the Revised Conflict Tactics Scale (CTS2; participant only). Analyses were conducted separately for males and females. In Step 1 of the analysis for males, CME was entered into the model and the overall regression was significant, $(F(1,53) = 39.7, \text{ and } R^2 = .43)$. History of physical or sexual abuse (b) = 65.21) was a significant predictor of relationship conflict, t = 6.30, p = .000. In Step 2 of the analysis for males, Self-Report Psychopathy was added to the model, and the overall regression coefficient was significant, (F(2,52) = 45.78, and $R^2 = .64$). History of physical or sexual abuse (b = 38.74) and Self-Report Psychopathy (b = 39.71) were both significant predictors of relationship conflict, (t = 4.03; p = .000 and t = 5.48; p = .000, respectively). In Step 3 of the analysis for males, EQ-i score was added to the model, and the overall regression was significant, (F(3,51) = 29.98), and $R^2 = .64$. However, the EQ-i score (b = .08) did not make a significant contribution to the model, t = .23, p = .82. In Step 4 of the analysis for males, performance on Micro-Expressions was added to the model, and the overall regression was significant, (F (4,50) = 27.36, and R^2 = .69). Micro-Expressions (b = -.57) made a significant

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contribution to the model, t = -2.77, p = .01. Based upon the analysis, the following equation represents the final model for males accounting for 69% of the variance in relationship conflict, as measured by four subscales of the Revised Conflict Tactics Scales:

Y = +/-42.54 (History of physical or sexual abuse) + 38.50 (Self-Report Psychopathy) + .17 (EQ-i Standardized Score) - .57 (Micro-Expressions Percentage Correct) - 61.49.

In Step 1 of the regression analysis for females, CME was entered into the model, and the overall regression was significant (F(1,99) = 4.53, and $R^2 = .04$). History of physical or sexual abuse (b = 16.19) was a significant predictor of relationship conflict, t = 2.13, p = .04. In Step 2 of the analysis for females, Self-Report Psychopathy was entered into the model and the overall regression was significant, (F(2,98) = 46.92), and $R^2 = .49)$. History of physical or sexual abuse (b = 11.58, t = 2.06, p = .04) and Self-Report Psychopathy (b = 42.94, t = 9.25, p = .000) were both significant predictors of relationship conflict. In Step 3 of the analysis for females, EO-i was entered into the model and the overall regression was significant, (F(3,97) = 38.91), and $R^2 =$.55). EQ-i (b = -.57, t = -3.49) was a significant predictor of relationship conflict, p = .001. However, CME (b = 4.71, t = .83, p = .41) was a not a significant predictor. In Step 4 of the analysis, performance on Micro-Expressions was entered into the model and the overall regression was significant, (F(4,96) = 30.79 and $R^2 = .56$). However, Micro-Expressions (b = -.21, t = -1.86, p = .07) and CME (b = 4.87, t = .87, p = .39) were not significant predictors. The regression equation for the final model accounting for 56% of the variance in relationship conflict, as measured with four subscales of the Revised Conflict Tactics Scales for females is as follows: Y = +/-4.87 (History of Physical or Sexual Abuse) + 39.92 (Self-Report Psychopathy) -.58 (EQ-I) - .21 (Micro-Expressions) + 11.55. Table 7 provides a model summary.

| | Ta | ble | 7 |
|--|----|-----|---|
|--|----|-----|---|

| Sex | Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|--------|-------|-------------------|----------|----------------------|----------------------------|
| Male | 1 | .654 ^a | .428 | .417 | 38.21645 |
| | 2 | .799 ^b | .638 | .624 | 30.71037 |
| | 3 | .799 ^c | .638 | .617 | 30.99455 |
| | 4 | .828 ^d | .686 | .661 | 29.14082 |
| Female | 1 | .209 ^a | .044 | .034 | 35.28073 |
| | 2 | .699 ^b | .489 | .479 | 25.91692 |
| | 3 | .739 ^c | .546 | .532 | 24.55407 |
| | 4 | .750 ^d | .562 | .544 | 24.24866 |

Model Summary

a. Predictors: (Constant), History of Physical or Sexual Abuse

b. Predictors: (Constant), History of Physical or Sexual Abuse, Self-Report Psychopathy Scale (Overall Score)

c. Predictors: (Constant), History of Physical or Sexual Abuse, Setf-Report Psychopathy Scale (Overall Score), EQ-i Standardized Score

d. Predictors: (Constant), History of Physical or Sexual Abuse, Self-Report Psychopathy Scale (Overall Score), EQ-i Standardized Score, Micro-Expressions Percentage Correct Table 8 provides an ANOVA table, which examines the significance of the regression models.

Table 8

| Sex | Model | | Sum of Squares | df | Mean Square | F | Sig. |
|--------|-------|------------|-------------------|-----|------------------|--------|-------------------|
| Male | 1 | Regression | 57980.582 | 1 | 57980.582 | 39.699 | .000 ^a |
| | | Residual | 77406.327 | 53 | 1460.497 | | |
| | | Total | 135386.909 | 54 | | | |
| | 2 | Regression | 86344.319 | 2 | 43172.160 | 45.776 | .000 ^b |
| | | Residual | 49042.590 | 52 | 943.127 | | |
| | | Total | 135386.909 | 54 | | | |
| | 3 | Regression | 86393.135 | 3 | 28797.712 | 29.977 | .000 ^c |
| | | Residual | 48993.774 | 51 | 960.662 | | |
| | | Total | 135386.909 | 54 | | | |
| | 4 | Regression | 92927.553 | 4 | 23231.888 | 27.358 | .000 ^d |
| | | Residual | 42459.356 | 50 | 849.187 | | |
| | | Total | 135386.909 | 54 | | | |
| Female | 1 | Regression | 5632.790 | 1 | 5632.790 | 4.525 | .036 ^a |
| | | Residual | 123228.260 | 99 | 1244.730 | | |
| | | Total | 128861.050 | 100 | | | |
| | 2 | Regression | 63035.768 | 2 | 31517.884 | 46.924 | .000 ^b |
| | | Residual | 65825.282 | 98 | 671. 68 7 | | |
| | | Total | 128861.050 | 100 | | | |
| | 3 | Regression | 70379.513 | 3 | 23459.838 | 38.911 | .000 ^c |
| | | Residual | 58481.536 | 97 | 602.902 | | |
| | | Total | 128861.050 | 100 | | | |
| • | 4 | Regression | 72413.305 | 4 | 18103.326 | 30.788 | .000 ^d |
| | | Residual | 56447.744 | 96 | 587.997 | | |
| | | Total | 128861.050 | 100 | | | |

ANOVA^e

a. Predictors: (Constant), History of Physical or Sexual Abuse

 b. Predictors: (Constant), History of Physical or Sexual Abuse, Self-Report Psychopathy Scale (Overall Score)

c. Predictors: (Constant), History of Physical or Sexual Abuse, Self-Report Psychopathy Scale (Overall Score), EQ-i Standardized Score

d. Predictors: (Constant), History of Physical or Sexual Abuse, Self-Report Psychopathy Scale (Overall Score), EQ-i Standardized Score, Micro-Expressions Percentage Correct

e. Dependent Variable: Revised Conflict Tactics Scales for Participants (Total Score for Four Subscales)

Table 9 provides the regression coefficients.

| Table | 9 |
|-------|---|
|-------|---|

Coefficients^a

| | | | Unstan Coefi | dardized ficients | Standardized Coefficients | _ | |
|--------|-------|--|-----------------|----------------------|------------------------------|--------|------|
| Sex | Model | | В | Std. Error | Beta | t | Sig. |
| Male | 1 | (Constant) | 11.633 | 6.977 | | 1.667 | .101 |
| | | History of Physical or Sexual Abuse | 65.207 | 10.349 | .654 | 6.301 | .000 |
| | 2 | (Constant) | -82.379 | 18.037 | | -4.567 | .000 |
| | | History of Physical or Sexual Abuse | 38.740 | 9.615 | .389 | 4.029 | .000 |
| | | Self-Report Psychopathy Scale (Overall Score) | 39.710 | 7.241 | .529 | 5.484 | .000 |
| | 3 | (Constant) | -90.032 | 38.521 | | -2.337 | .023 |
| | | History of Physical or Sexual Abuse | 39.445 | 10.1 96 | .396 | 3.869 | .000 |
| | | Self-Report Psychopathy Scale (Overall Score) | 39.376 | 7.456 | .525 | 5.281 | .000 |
| | | EQ-i Standardized Score | .081 | .357 | .020 | .225 | .823 |
| | 4 | (Constant) | -61.459 | 37.654 | | -1.632 | .109 |
| | | History of Physical or Sexual Abuse | 42.540 | 9.651 | .427 | 4.408 | .000 |
| | | Self-Report Psychopathy Scale (Overall Score) | 38.499 | 7.018 | .513 | 5.486 | .000 |
| | | EQ-i Standardized Score | .169 | .337 | .042 | .501 | .619 |
| | | Micro-Expressions Percentage Correct | 566 | .204 | 222 | -2.774 | .008 |
| Female | 1 | (Constant) | 21.486 | 4.217 | | 5.095 | .000 |
| | | History of Physical or Sexual Abuse | 16.192 | 7.611 | .209 | 2.127 | .036 |
| | 2 | (Constant) | -68.253 | 10.189 | | -6.698 | .000 |
| | | History of Physical or Sexual Abuse | 11.580 | 5.614 | .150 | 2.063 | .042 |
| | | Self-Report Psychopathy Scale (Overall Score) | 42.981 | 4.649 | .670 | 9.245 | .000 |
| | 3 | (Constant) | -5.371 | 20.441 | | 263 | .793 |
| | | History of Physical or Sexual Abuse | 4.712 | 5.671 | .061 | .831 | .408 |
| | | Self-Report Psychopathy Scale (Overall Score) | 40.964 | 4.443 | .639 | 9.221 | .000 |
| | | EQ-i Standardized Score | 572 | .164 | 258 | -3.490 | .001 |
| | 4 | (Constant) | 11.549 | 22.142 | | .522 | .603 |
| | | History of Physical or Sexual Abuse | 4.873 | 5.601 | .063 | .870 | .386 |
| | | Self-Report Psychopathy Scale (Overall Score) | 39.915 | 4.423 | .622 | 9.023 | .000 |
| | | EQ-i Standardized Score | 584 | .162 | 263 | -3.607 | .000 |
| | | Micro-Expressions Percentage Correct | 205 | .110 | 127 | -1.860 | .066 |

a. Dependent Variable: Revised Conflict Tactics Scales for Participants (Total Score for Four Subscales)

APPENDIX M

Childhood Maltreatment Experiences

Participants completed a modified version of the Childhood Maltreatment Interview Schedule – Short Form (CMIS-SF; Briere, 1992). This instrument asked a series of detailed questions about childhood experiences, some of which are abusive experiences (e.g., sexual abuse, physical abuse, witnessing parental violence), while others are more difficult to categorically describe as abusive (e.g., overhearing parents argue; being yelled at, criticized, insulted, humiliated, etc.; being subjected to 'corporal punishment'). In order to provide a more thorough understanding of participants' childhood experiences responses are detailed below; relations between some of these childhood experiences and emotional intelligence are explored.

The first question asked participants whether or not any parental figure had problems with drugs or alcohol that led to medical problems, divorce or separation, being fired from work, or being convicted for intoxication in public or while driving before participants reached the age of 17. Participants were able to identify more than one caregiver if this was applicable to their situation. The majority of participants (74.6%; N = 147) reported that their caregivers did not experience this problem. Of the 25.4% (N = 50) of participants who indicated that a caregiver had this problem, 36% (N = 18) reported mother or mother substitutes (including grandmothers) and 80% (N = 40) reported fathers or father substitutes (including grandfathers). On the basis of the number of endorsements (e.g., N = 58) of this problem, it is apparent that eight participants had more than one caregiver experience problems with drugs or alcohol. Results are summarized in Table 10.

Table 10

| | | Frequency | Percent Out of 197 | Cumulative Percent |
|-------|-------------------------------|-----------|-----------------------|-----------------------|
| Valid | Biological or adoptive mother | 13 | 6.6 | 6.6 |
| | Biological or adoptive father | 30 | 15.2 | 21.8 |
| | Step-Mother | 2 | 1 | 22.8 |
| | Step-Father | 6 | 3 | 25.8 |
| | Grandmother | 3 | 1.5 | 27.3 |
| | Grandfather | 4 | 2 | 29.3 |
| | Didn't happen | 147 | 74.6 | 103.9 |
| | Total | 205 | 103.9 | |

Frequencies of Parents or Parent Substitutes with Problems with Alcohol or Drugs

Whether or not there is a relation between parental alcohol or drug use and EI was explored *via* Pearson product-moment correlations for EIT and EIA and *via* the t-test for familial history of alcohol or drug abuse *versus* EIA or EIT. The mean EIA was higher for people who had no history of alcohol or drug abuse *versus* those who did have a history of alcohol or drug abuse (Ms = 67.8 *and* 62.2, respectively), but this difference was not statistically significant (p = .1). People without a familial history of alcohol or drug abuse had higher EIT scores than those who did have a familial history of alcohol or drug abuse (Ms = 101.5 *and* 96.2, respectively), but this association was not statistically significant (p = .09).

| Table | e 11 |
|-------|------|
| | |

| <u> </u> | | Familial Histo or Drug | ory of Alcohol g Abuse | P-Value (two-tailed) |
|---|-----------|---------------------------|---------------------------|-------------------------|
| | | No | Yes | |
| Micro-Expressions [Percentage Correct] | Row % (N) | 74.6 (147) | 25.4 (50) | 0.109 |
| • ••••••••• | Mean (SE) | 67.8 (1.76) | 62.2 (2.94) | |
| EQ-I Standardized Score | Row % (N) | 72.4 (113) | 27.6 (43) | 0.092 |
| | Mean (SE) | 101.5 (1.24) | 96.2 (2.84) | |

Correlations of Emotional Intelligence and Familial History of Alcohol or Drug Abuse

The second question asked of participants was whether or not they had witnessed their parents or parent substitutes in an act of spousal or domestic violence. While the majority (83.2%; N = 164) responded 'no' to this question, a fairly large number (16.8%; N = 33) responded 'yes.' Participants who responded 'yes' to this question were asked about the directionality of the spousal violence they witnessed: The majority (78.8%; N = 26) witnessed their father figures beating their mother figures, while only 6.1% (N = 2) witnessed their mother figures beating their father figures, and 15.1% (N = 5) witnessed their parental figures beating each other. Of the participants who reported witnessing spousal violence between their parental figures 39.4% (N = 13) reported that on at least one occasion such an incident resulted in someone needing medical care or the police being called.

Whether or not there is a relationship between family violence and emotional intelligence was also accessed *via t-tests*. Participants who did not experience family violence had, on average, higher EIA scores than those who did experience family violence (Ms= 67.2 and 62.1, respectively), but this difference was not statistically significant (p = .21). However, those who did not experience family violence had statistically significantly higher EIT scores than those who did (Mean EIT scores were 101.5 and 93.5, respectively; p = .03). These results are presented in Table 12.

| Correlations of Emotional Intelligence and Witnessing Family Violence | | | | | |
|--|-----------|---|---|-------------------------|--|
| <u> </u> | | Before age 17 see one of yo parent substitu up your other p check all t | , did you ever ur parents or tes hit or beat parent? Please hat apply | P-Value (two-tailed) | |
| | | Yes | No | | |
| Micro-Expressions [Percentage Correct] | Row % (N) | 16.8 (33) | 83.2 (164) | 0.209 | |
| , | Mean (SE) | 62.1 (3.32) | 67.2 (1.69) | | |
| | | | | | |
| EQ-I Standardized Score | Row % (N) | 18.6 (29) | 81.4 (127) | 0.032 | |
| | Mean (SE) | 93.5 (3.36) | 101.5 (1.23) | | |

Table 12

Participants were next asked if they had overheard their parental figures arguing or yelling at each other and, if yes, how frequently. The majority (35.5%; N = 70) reported hearing parental figures arguing or yelling, but heard them less than once a month. Thirty one percent (N = 61) heard them argue 4 to 8 times a month; 8.6% (N = 17) heard them argue 9 to 12 times a month; 4.6% (N = 9) heard them argue 13-20 times a month; 8.6% (N = 17) heard them argue daily; while 11.7% (N = 23) reported not hearing their parental figures arguing or yelling at all. Table 13 summarizes these findings.

Table 13

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------------|-------------|---------|------------------|-----------------------|
| Valid | No | 23 | 11.7 | 11.7 | 11.7 |
| | Less than once a month | 70 | 35.5 | 35.5 | 47.2 |
| | 4 to 8 times a month | 61 | 31.0 | 31.0 | 78.2 |
| | 9 to 12 times a month | 17 | 8.6 | 8.6 | 86.8 |
| | 13 to 20 times a month | 9 | 4.6 | 4.6 | 91.4 |
| | Daily | 17 | 8.6 | 8.6 | 100.0 |
| | Total | 1 97 | 100.0 | 100.0 | |

Frequencies of Overhearing Parents or Parental Figures Argue

Of those that overheard their parents or parent substitutes arguing, 11.7% (N = 23) overheard their mother figures yelling at their fathers; 25.5% (N = 50) overheard their father figures yelling at their mother figures, and 51.5% (N = 101) overheard both parental figures yelling at each other.

Participants were asked if they ever felt like they were "in the middle of their parents' relationship" (e.g., asked to take sides; tried to help parents resolve their problems); 17.8% (N = 35) of participants reported that they felt like this. This question was added to the CMIS-SF, as whether or not this variable was associated with EI was of interest. Those who had been in the middle of parents' relationship had, on average, slightly higher EIA and EIT scores than those who had not (Ms EIA 67.4 and 66.5, respectively, and Ms EIT 102.7 and 98.6, respectively); however these differences were not statistically significant (p = .81 and p = .22, respectively). These results are presented in Table 14.

| | Ta | ble | : 14 |
|--|----|-----|------|
|--|----|-----|------|

| Correlations of Emotional Intelligence and Being in the Middle of Parents' Relationships | | | | | |
|---|-----------|-------------------------------------|-------------|-------------------------|--|
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | <u>,</u> | Middle of Parents' Relationships | | P-Value (two-tailed) | |
| | | Yes | No | | |
| Micro-Expressions [Percentage Correct] | Row % (N) | 20.6 (35) | 79.4 (135) | 0.805 | |
| - | Mean (SE) | 67.4 (2.92) | 66.5 (1.84) | | |
| EQ-I Standardized Score | Row % (N) | 20.0 (27) | 80.0 (108) | 0.224 | |
| | Mean (SE) | 102.7 (2.78) | 98.6 (1.55) | | |

The next four questions sought to determine whether or not participates felt loved by the parental figures. The questions were how much they felt loved by father figures before and after age 8, and how much they felt loved by mother figures before and after age 8. Percentages for each of father figures and mother figures were similar for both age ranges, hence the figures will be presented for 'before age 8', as developmentally being loved or not likely has more impact early in life. The results for father figure are summarized in Table 15.

Table 15

Frequencies of Feeling that Father or Father Figure Loved and Cared About Them

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------|-----------|---------|---------------|-----------------------|
| Valid | Not at all | 2 | 1.0 | 1.0 | 1.0 |
| | Somewhat | 28 | 14.2 | 14.2 | 15.2 |
| | Not sure | 25 | 12.7 | 12.7 | 27.9 |
| | He loved me | 64 | 32.5 | 32.5 | 60.4 |
| | He loved me very much | 77 | 39.1 | 39.1 | 99.5 |
| | Not applicable | 1 | .5 | .5 | 100.0 |
| | Total | 197 | 100.0 | 100.0 | |

The results for mother figure are summarized in Table 16.

Table 16

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------------|-----------|---------|---------------|-----------------------|
| Valid | Not at all | 2 | 1.0 | 1.0 | 1.0 |
| | Somewhat | 10 | 5.1 | 5.1 | 6.1 |
| | Not sure | 11 | 5.6 | 5.6 | 11.7 |
| | She loved me | 74 | 37.6 | 37.6 | 49.2 |
| | She loved me very much | 100 | 50.8 | 50.8 | 100.0 |
| | Total | 197 | 100.0 | 100.0 | |

Frequencies of Feeling that Mother or Mother Figure Loved or Cared About Them

The next question asked participants whether or not their parental figures had subjected them to various forms of verbal or psychological 'abuse.' Participants were asked to check all that applied to them. Surprisingly large numbers of participants reported experiencing multiple forms of this 'abuse,' although this variable is not well defined enough for these experiences to be treated as 'abuse' in this study. Participants reported that parents or parental substitutes did the following to them when they were 16 years old or younger: (1) yelled at them (82.7%, N =163); (2) insulted them (36.5%, N = 72); (3) criticized them (67.5%, N = 133); (4) tried to make them feel guilty (54.3%, N = 107); (5) ridiculed or humiliated them (29.4%, N = 58); (6) embarrassed them in front of others (36.5%, N = 72); and (7) made them feel like they were a bad person (44.7%, N = 88). Only 7.6% (N = 15) reported not having any of these experiences. Results are summarized in Table 17.

Table 17

| | | Frequency | Percent Out of 197 | Cumulative Percent |
|-------|---|-----------|-----------------------|-----------------------|
| Valid | Yell at you | 163 | 82.7 | 82.7 |
| | Insult you | 72 | 36.5 | 119.2 |
| | Criticize you | 133 | 67.5 | 1 86.7 |
| | Try to make you feel guilty | 107 | 54.3 | 241 |
| | Ridicule or humiliate you | 58 | 29.4 | 270.4 |
| | Embarrass you in front of others | 72 | 36.5 | 306.9 |
| | Make you feel like you were a bad person | 88 | 44.7 | 351.6 |
| | These things did not happen to me | 15 | 7.6 | 359.2 |
| | Total | 708 | 359.2 | |

Frequencies of Experiencing Verbal/Psychological Abuse

Participants were then asked if they had experienced any form of physical discipline from their parents or parental figures. They were provided with a list of diverse physical acts, from more modest acts of 'corporal punishment' (e.g., hit with hand or soft object) to more violent acts of physical abuse (e.g., punched with closed fist; cut; burned) and acts in between that are more difficult to categorize (e.g., pinched, scratched). Participants were instructed to select all that applied to them.

A surprisingly large number (69.5%, N = 137) of participants reported experiencing corporal punishment in the form of being hit with a caregiver's hand; typically this would not been seen as a form of physical punishment, but it could be depending on how hard the hit is or where it is directed (e.g., head versus buttocks), making it difficult to classify this act as abusive or not. Given that the average age of the survey respondents was 37 years, perhaps this figure is

not that surprising, as it is only in the last 20 years or so that it has become unacceptable for parents to hit their children. Almost 50% of participants (46.7%, N = 92) reported being hit with a soft object; while 47.7% (N = 94) reported being hit with a hard object. Being hit with a hard object is difficult to interpret as abusive or not because participants could have been hit with a wooden spoon without significant force or conversely, could have been beaten with a 2x4; the first of which is not abusive, the second of which is. The remainder of the physical punishment items are more clear cut in terms of most people's perceptions of what constitutes an abusive act towards a child: Being punched with a closed fist (7.1%; N = 14); being cut (0.5%; N = 1); being burned (1.5%; N = 3); being pushed down (15.2%; N = 30); and having broken teeth as a consequence of an act (0.5%; N = 1). Being scratched (3%; N = 6) and being pinched (10.7%; N = 21) are less clear cut, although as the mother of a toddler I would consider them abusive if they were inflicted on my child. A final category of "other" was endorsed by 2.5% (N = 5); unfortunately participants were not given the opportunity to state what happened, so this category is an unknown in terms of being categorized as abusive or not. Just under 25 percent of participants (23.9%; N = 47) indicated that none of the parental physical punishment items happened to them; one participant (0.5%) reported being hurt so badly that a hospital visit was required. Results are summarized in Table 18.

Table 18

| | | Frequency | Percent Out of 197 | Cumulative Percent |
|-------|--|-----------|-----------------------|-----------------------|
| Valid | Hit you with their hand | 137 | 69.5 | 69.5 |
| | Hit you with a soft object (e.g., slipper) | 92 | 46.7 | 116.2 |
| | Hit you with a hard object (e.g., ruler, stick, spoon) | 94 | 47.7 | 163.9 |
| | Punch you with a closed fist | 14 | 7.1 | 171 |
| | Cut you | 1 | 0.5 | 171.1 |
| | Burn you | 3 | 1.5 | 172.3 |
| | Push you down | 30 | 15.2 | 1 87.8 |
| | Scratch you | 6 | 3.0 | 190.1 |
| | Pinch you | 21 | 10.7 | 200.8 |
| | Break teeth | 1 | 0.5 | 201.3 |
| | Other | 5 | 2.5 | 203.8 |
| | These things did not happen to me | 47 | 23.9 | 227.7 |
| | Total | 451 | 227.7 | |

Frequency of Physical Discipline/Abuse

If respondents indicated that they had experienced acts of physical punishment and/or abuse (Table 11), they were asked who was responsible. Not surprisingly, mothers and mother figures were most responsible (59.4%, N = 117); however, fathers and father figures were not far behind at 53.8% (N = 106). Please note that participants were asked to check all parental figures that were responsible, but were not asked to identify which acts were committed by which parental figure.

The majority (67.5%, N = 133) of participants who reported experiencing some form of physical punishment or abuse reported that it commenced before the age of 8 years; when

physical punishment or abuse ceased was later, with only 14.7% (N = 29) reporting that it stopped between ages 6 and 8; 27.4% (N = 54) reporting that it stopped between ages 9 and 12; and 23.9% (N = 47) reporting that it stopped between ages 13-15.

Interestingly, when asked 'yes' or 'no' whether they thought they had been physically abused, 19.8% (N = 39) reported that they had been indicating that of the physical punishment acts endorsed by participants, only a small number (e.g., N = 39) regarded them as abusive.

The next four questions on the CMIS-SF asked participants about unwanted sexual experiences. The first of these questions asked if, before the age of 17, anyone had ever kissed them in a sexual way, or touched their body in a sexual way, or made them touch another's sexual parts, when they did not want them to. Fifty three (26.9%) participants responded yes to this question, while 144 (73.1%) responded no. Participant ages when this occurred are presented in Table 19.

| T MD1A TA | Т | 8 | bl | e | 1 | 9 |
|-----------|---|---|----|---|---|---|
|-----------|---|---|----|---|---|---|

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------------|-----------|---------|------------------|-----------------------|
| Valid | Not applicable | 144 | 73.1 | 73.1 | 73.1 |
| | Under 5 years old | 2 | 1.0 | 1.0 | 74.1 |
| | 6 to 8 | 11 | 5.6 | 5.6 | 79.7 |
| | 9 to 12 | 22 | 11.2 | 11.2 | 90.9 |
| | 13 to 15 | 14 | 7.1 | 7.1 | 98.0 |
| | 16 or older | 4 | 2.0 | 2.0 | 100.0 |
| | Total | 197 | 100.0 | 100.0 | |

Participant Age when Experienced Unwanted Sexual Touching

Of the 53 participants who reported that before the age of 17 someone had kissed them in a sexual way or made them touch their sexual parts when participants did not want them to 26.4% (N = 14) reported that it happened once; 37.7% (N = 20) reported that it happened less than five times; 15.1% (N = 8) reported it happened between 6 to 10 times; and 20.8% (N = 11) reported that it happened greater than 10 times.

Participants (N = 53) were then asked who had perpetrated these unwanted sexual acts upon them and were asked to check all that applied. Male family friend (4.6%, N = 9), male stranger (3.6%, N = 7), male other (unidentified) (3%, N = 6), male cousin (2.5%, N = 5), male school friend (2.5%, N = 5), uncle (2%, N = 4), and father figure (2%, N = 4) constitute the largest perpetrator categories, with a diverse mix of others detailed below in Table 20.

| Table | 20 |
|-------|----|
|-------|----|

| | | Frequency | Percent Out of 197 | Cumulative Percent |
|-------|---|-----------|-----------------------|-----------------------|
| Valid | Father | 3 | 1.5 | 1.5 |
| | Father figure | 4 | 2.0 | 3.5 |
| | Mother figure | 1 | 0.5 | 4.0 |
| | Brother | 3 | 1.5 | 5.5 |
| | Uncle | 4 | 2.0 | 7.5 |
| | Male cousin | 5 | 2.5 | 10 |
| | Female cousin | 3 | 1.5 | 11.5 |
| | Male babysitter | 3 | 1.5 | 13 |
| | Female babysitter | 3 | 1.5 | 14.5 |
| | Male family friend Female family | 9 | 4.6 | 19.1 |
| | friend | 1 | 0.5 | 1 9.6 |
| | Male school friend Female school | 5 | 2.5 | 22.1 |
| | friend | 3 | 1.5 | 23.6 |
| | Male stranger | 7 | 3.6 | 27.2 |
| | Male teacher, coach, doctor, dentist, religious person | 3 | 1.5 | 28.7 |
| | Female teacher, coach, doctor, dentist, religious person | 1 | 0.5 | 29.2 |
| | Male other | 6 | 3.0 | 32.2 |
| | Not applicable | 141 | 71.6 | 103.8 |
| | Total | 205 | 103.8 | |

Perpetrators of Unwanted Acts of Sexual Touching

Participants (N = 53) who reported unwanted sexual touching were also asked if the person who victimized them was older than they were by five years or more. Forty-one (77.4%) said yes, their perpetrators were older than they were by five years or more, 22.6% (N = 12) said
their perpetrator was not older than they were by five years or more, and one person responded that some of his/her perpetrators were older by five years or more and some were not. Furthermore, 9.4% (N = 5) of participants indicated that their perpetrators used physical force.

The next questions asked participants about more extreme forms of sexual abuse. Specifically, they were asked if, before age 17, if anyone had oral, anal, or vaginal intercourse with them, or if someone insert a finger or an object into their anus or vaginal when they did not want them to. Of the 197 participants 9.6% (N = 19) responded yes to this question. Of the 19 who responded yes, one participant (5.3%) was less than five years old when this occurred; 21.1% (N = 4) were 6-8, 47.4% (N = 9) were 9-12, 21.1% (N = 4) were 13-15, and one participant (5.3%) was 16 or older. These responses are illustrated in Figure 6.





Figure 6. Age of Respondent When Unwanted Anal or Vaginal Penetration Occurred

Of the 19 (9.6%) participants who said that someone perpetrated oral, anal or vagina penetration of some kind on them, 26.3% (N = 5) indicated that this occurred once; 15.8% (N =3) less than five times, 26.3% (N = 5) 6-10 times, and 31.6% (N = 6) greater than 10 times. The most frequent perpetrator was a male stranger (31.6%, N=6), followed by fathers (15.8%, N = 3), father figures (15.8%, N = 3), brothers (10.5%, N = 2), uncles (10.5%, N = 2), and male school friends (15.8%, N = 3), amongst others. Participants were asked to check all that applied to them. Responses are presented in Table 21.

| 1 4010 21 | T | ab | le | 21 |
|-----------|---|----|----|----|
|-----------|---|----|----|----|

| | | Frequency | Percent Out of 197 | Cumulative Percent |
|-------|--|-----------|-----------------------|-----------------------|
| Valid | Father | 3 | 1.5 | 1.5 |
| | Father figure | 3 | 1.5 | 3.0 |
| | Brother | 2 | 1.0 | 4.0 |
| | Uncle | 2 | 1.0 | 5.0 |
| | Male cousin | 1 | 1.5 | 6.5 |
| | Male babysitter | 2 | 1.0 | 7.5 |
| | Male family friend | 1 | 0.5 | 8.0 |
| | Male school friend | 3 | 1.5 | 9.5 |
| | Male stranger | 6 | 3.0 | 12.5 |
| | Male teacher, coach, doctor, dentist, religious person | 1 | 0.5 | 13.0 |
| | Male other | 1 | 0.5 | 13.5 |
| | Not applicable | 175 | 88.8 | 102.3 |
| | Total | 200 | 102.3 | |

Perpetrators of Unwanted Anal or Vaginal Penetration

Of the 19 participants who indicated sexual penetration of some sort, 89.5% (N = 17) indicated that their perpetrators were older than they were by five or more years, 15.8% (N = 3) of participants indicated that their perpetrators were not older than they were by five or more years, and one (5.3%) participant indicated that some of his/her perpetrators were older than he/she by five years or more and some were not older by five or more years. Of the 19 participants to whom this happened, 26.3% (N = 5) indicated that their perpetrators used physical force.

When asked if, to the best of their knowledge, they had been sexually abused 16.8% (N = 33) of participants said 'yes.' This was added to the 19.8% (N = 39) of participants who responded 'yes' when asked if they had been physically abused, which resulted in 31.5% (N = 62) of participants reporting sexual or physical abuse and became the childhood maltreatment

experiences (CME) predictor variable used in later Poisson regressions. These results are illustrated in Figure 7.



Figure 7. History of Physical or Sexual Abuse

Of the relations considered between childhood experiences, other than physical abuse and sexual abuse, which will be considered later, and emotional intelligence, the only one that reached statistical significance was witnessing family violence and EIT.

APPENDIX N

Ancillary Statistics: Part II

The most resounding finding in this study is the strength of psychopathy as a predictor of relationship conflict in a community-based sample. Because it is such a strong predictor, it was decided that the model predicting relationship conflict on the basis the predictor variables (e.g., gender, physical abuse, sexual abuse, EIT, EIA, psychopathy) should be rerun using high versus low psychopathy scores in place of total psychopathy score. For this purpose high psychopathy scorers are those who scored above the median while low psychopathy scorers are those who scored below the median.

High versus Low Psychopathy Scores

The model changes somewhat as a consequence of using high versus low psychology. High psychopathy has a statistically significant (p < .001) impact on CTS2 scores, with an associated increase of 262% in CTS2 scores for those with a high psychopathy score versus those with a low psychopathy score, controlling for all other variables. This is compared to an associated increase in CTS2 scores of 229% when the distinction in not made between high versus low psychopathy scores. Being physically abused continues to have a statistically significant (p < .001) impact on CTS2 scores, which increase an associated 54% for someone with physical abuse experiences versus someone without. When the high-low distinction is not made for psychopathy, the associated increase in CTS2 score for those with a history of physical abuse is 33%. Experiencing sexual abuse continues to have no statistically significant impact on CTS2 scores. Gender also continues to have no statistically significant impact on CTS2 scores dender also continues to have no statistically significant impact on CTS2 scores is only 1%. Lastly, EIT (as measured by the EQ-i) continues to make a statistically significant (p = .02) contribution to the model; however, again the impact on CTS2 scores in marginal with an associated decrease of approximately 1%. The model predicting relationship conflict, as measured by the CTS2, distinguishing between high versus low psychology scorers, on the basis of median split on the SRP-III, is as follows:

Log (CTS2) = 3.905099 + 1.286882 (High SPR) + 0.012556 (Gender) + 0.767157 (Physical Abuse) + 0.057082 (Sexual Abuse) - 0.0010990 (EIA: Micro) – 0.012883 (EIT: EQ-i).

The instrument used to measure the outcome variable relationship conflict allows for more finely tuned analysis of that variable, as does the measure of psychopathy. As such, additional analyses were done with the four CTS2 subscales used as individual outcome variables, and the four facets of the SRP-III used as separate predictor variables. The four CTS2 subscales are: psychological aggression, physical assault, sexual coercion, and physical injury, and the four SRP-III facets are: criminal tendencies (CT), erratic lifestyle (ELS), interpersonal manipulation (IPM) and callous affect (CA). Criminal tendencies and erratic lifestyle form SPR factor 1, while interpersonal manipulation and callous affect form SPR factor 2. These factors will not be considered herein except as the factors relate to the PCL-R. Each of these will be looked at in turn and significant differences highlighted.

CTS2 Psychological Aggression Subscale

When CTS2 psychological aggression subscale was the outcome variable the following predictor variables reached significance: SRP: IPM (p = .0001), which resulted in an associated increase in CTS2 psychological aggression subscale score of 5% for each incremental increase in SRP: IPM score; SRP: CA (p = .0008), which resulted in an associated increase in CTS2 psychological aggression subscale score of 6% for each incremental increase in SRP: CA score; gender (P = .007), which resulted in an associated increase in CTS2 psychological aggression of

47% for males; and EIT (p = .0002), as measured by the EQ-i, which resulted in an associated decrease in CTS2 score of 2%. The final model predicting CTS2 psychological aggression is: Log (CTS2: Psychological Aggression) = 0.044761 + 0.028023 (SPR: CT) - 0.021584 (SRP: ELS) + 0.051726 (SRP: IPM) + 0.061369 (SPR: CA) + 0.387046 (Gender) + 0.225097 (Physical Abuse) + 0.143459 (Sexual Abuse) - 0.005012 (EIA: Micro) - 0.015906 (EIT: EQ-i).

CTS2 Physical Assault Subscale

When CTS2 physical assault subscale was the outcome variable the following predictor variables reached significance: SRP: IPM (p < .003), which resulted in an associated increase in CTS2 physical assault subscale score of 12% for each incremental increase in SRP: IPM score; and EIT, as measured by the EQ-i (p < .01), which resulted in an associated decrease in CTS2 physical assault subscale score of approximately 2.5% with each incremental increase in EIT. The final model for predicting CTS2 physical assault subscale score is:

Log (CTS2: Physical Assault) = -2.330573 + 0.040842 (SPR: CT) - 0.046098 (SRP: ELS) + 0.109977 (SRP: IPM) + 0.069894 (SPR: CA) + 0.594677 (Gender) + 0.579586 (Physical Abuse) + 0.539194 (Sexual Abuse) + 0.005783 (EIA: Micro) - 0.025769 (EIT: EQ-i).

CTS2 Sexual Coercion Subscale

When CTS2 sexual coercion subscale was the outcome variable NONE of the predictor variables reached significance, although the directionality remained similar. As such the final model is not provided.

CTS2 Physical Injury Subscale

When CTS2 physical injury subscale was the outcome variable the following predictor variable reached significance: EIT, as measured by the EQ-i, (p < .01), which resulted in an

associated decrease in CTS2 physical injury subscale score of 8% with each incremental increase in EIT. The final model for predicting CTS2 physical injury subscale score is:

Log (CTS2: Physical Injury) = -0.34165 - 0.01466 (SPR: CT) + 0.14480 (SRP: ELS) - 0.05987 (SRP: IPM) - 0.11597 (SPR: CA) + 1.28481 (Gender) + 1.41581 (Physical Abuse) + 0.33802 (Sexual Abuse) - 0.01269 (EIA: Micro) - 0.08674 (EIT: EQ-i).

Conclusion

Additional analyses involving high-low psychopathy scores (SRP-III); CTS2 subscales, and SRP-III facets, yielded interesting results.

When SRP-III scores were designated either high or low based on median splits it was found that a high SRP-III score resulted in an associated increase in CTS2 scores when compared to the impact of total SRP-III score (262% versus 229%). The high-low SRP-III score distinction also increased the impact of physical abuse on associated CTS2 scores (54% versus 33%) and resulted in EIA (micro-expressions) becoming a statistically significant predictor of CTS2 score; however, with a marginal associated decrease in score of only 1%. These results are not surprising given that high psychopathy scorers, as measured by the PCL-R, are more likely to be violent than their low scoring counterparts (e.g., Hare, 1993). That the impact of physical abuse increases when the distinction is made between high and low SRP-III scores is interesting, as research indicates that physical abuse experiences are common with psychopaths (e.g., Blair, Mitchell, & Blair, 2005).

The breakdown of the outcome variable into the subscales of the CTS2, rather than total CTS2 score, combined with the psychopathy predictor variable being broken down into the SRP-III facets was also interesting.

When CTS2 psychological aggression was the outcome variable, SRP: IPM

(Interpersonal Manipulation) was associated with a statistically significant increase in CTS2 psychological aggression, as was SRP: CA (Callous Affect). These facets form SRP-III factor 2, which maps onto the PCL-R interpersonal/affective factor 1, described as the core traits of the disorder. Predicting psychological aggression on the basis of interpersonal manipulation and callous affect is logical. Interestingly, the only other predictor variables that achieved significance was gender, with being male associated with increased psychological aggression; and EIT, which resulted in a small but significant decrease in psychological aggression.

When CTS2 physical assault was the outcome variable, SRP: IPM was again associated with a statistically significant increase in that measure. Somewhat surprisingly, no other SRP-III facets were, nor were gender or a history of being physically abused. EIT was again associated with a statistically significant decrease in the outcome variable of 2.5%.

None of the predictor variables were associated with any statistically significant changes in CTS2 sexual coercion scores and only one predictor, EIT, was associated with a statistically significant decrease in the CTS2 physical injury outcome variable.

On the basis of these ancillary analyses we can say that for this non-random communitybased sample of males and females, high psychopathy scores are the best predictor of relationship conflict. The results also suggest that if SRP-III facets are considered as predictors of the various forms of dysfunctional relationship conflict, as determined by the CTS2 subscales, SRP-III facet interpersonal manipulation is predictive of both psychological aggression and physical assault; whereas SRP-III facet callous affect contributes to the prediction of only psychological aggression. EIT, as measured by the EQ-i, was the only other predictive variable impacting any of the CTS2 subscale outcome variables. EIT was associated with a small but statistically significant decrease in psychological aggression, physical assault, and physical injury.

APPENDIX O



The University of British Columbia Office of Research Services **Behavioural Research Ethics Board** Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - FULL BOARD

| PRINCIPAL INVESTIGATOR: | INSTITUTION / D | EPARTMENT: | JBC BREB N | IUMBER: | | |
|--|--|--|--------------|-------------------|--|--|
| Jessica Tracy | UBC/Arts/Psychology, Department H08-00184 | | | | | |
| INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT: | | | | | | |
| Institution | | | Site | | | |
| N/A | | N/A | | | | |
| Other locations where the research will be | e conducted: | | | | | |
| Data to be collected via Web Survey | | | | | | |
| | | | | | | |
| CO-INVESTIGATOR(S): | <u>8</u> | | | | | |
| Teresa Diane Sirkia | | | | | | |
| SPONSORING AGENCIES: | | | | | | |
| N/A | | | | | | |
| PROJECT TITLE: | | 10 · · · · · · · · · · · · · · · · · · · | | | | |
| The Impact of Emotional Intelliger | nce on Relationship | Conflict | | | | |
| REB MEETING DATE: | CERTIFICATE EX | (PIRY DATE: | | | | |
| March 13, 2008 | March 13, 2009 | | | | | |
| DOCUMENTS INCLUDED IN TH | IS APPROVAL: | | DATE APPR | OVED: | | |
| | | | June 11, 200 | 8 | | |
| Document Name | ····· | | Version | Date | | |
| Protocol: | | · | | J | | |
| Dissertation method section amer | ndment | | N/A | November 15, 2007 | | |
| Dissertation Proposal | | | N/A | November 25, 2005 | | |

| Consent Forms: | | |
|---|-----------|-------------------|
| Participant Information form | 2 | April 25, 2008 |
| Participate Information Form | Revised 3 | June 4, 2008 |
| Participant Information Form | N/A | February 21, 2008 |
| Advertisements: | | |
| Advertisement | 2 | April 25, 2008 |
| Advertisement | 3 | May 21, 2008 |
| Advertisement | N/A | February 15, 2008 |
| Questionnaire, Questionnaire Cover Letter, Tests: | | |
| CTS2 | N/A | February 15, 2008 |
| EQ-i | N/A | February 15, 2008 |
| CMIS-SF | N/A | February 15, 2008 |
| Self-Report Psychopathy Scale - III | N/A | February 15, 2008 |
| Other Documents: | | |
| Adobe file of online survey | 1 | May 21, 2008 |
| Debriefing form | 1 | April 25, 2008 |
| Debriefing form | 3 | June 4, 2008 |
| | | |

Other:

After much research, including consultation with ARES, it was determined that Survey Monkey was the most appropriate company to use for this survey. No Canadian company such as Survey Monkey, which allows you to input your own measures could be found, which meant that all measures would have needed to be programmed at a cost of \$8,000 to \$10,000. As this cost is prohibitive to the doctoral candidate, it is hoped that consideration will be given to her using Survey Monkey. The survey has been completed and the link is given here:

http://www.surveymonkey.com/s.aspx?sm=ybZp83qQ5u_2fGrERkJXZORQ_3d_3d Password protected so password is: "thisistheend"

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board

and signed electronically by one of the following:

Dr. M. Judith Lynam, Chair Dr. Ken Craig, Chair Dr. Jim Rupert, Associate Chair Dr. Laurie Ford, Associate Chair Dr. Daniel Salhani, Associate Chair Dr. Anita Ho, Associate Chair