

The Self and the Other: An Attachment Perspective for Uncovering Dyadic Patterns of Intrapersonal
and Interpersonal Distress

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To Adrien for sharing this path with me.

"You will never have to work a day in your life if you love what you do "

- Robert Fitzpatrick

Summary of Thesis

Psychosocial research is increasingly focused on attachment, specifically on the potential mechanisms associating attachment with psychological functioning (Cassidy & Shaver, 2016). In past decades, attachment research has sought to better understand the development of individual psychological distress as well as relationship distress, given its major impacts on the overall well-being of individuals. It is worth noting that researchers have identified specific intrapersonal and interpersonal factors that are important variables to consider in the link between attachment and both individual distress and relationship dissatisfaction (Ensel & Lin, 1991; Hobfoll, 2002). However, little attention has been paid to investigating these mechanisms using a dyadic approach in order to gain a better understanding of reciprocal impacts within couple relationships. Since dyadic research methods have not been commonly utilized for understanding distress within an attachment framework, this has limited our understanding of the effect partners have on one another. Consequentially, the importance of dyadic effects has possibly been minimized in research. The present thesis, composed of two main studies, aims to verify if self-esteem and dyadic trust help explain the link between insecure romantic attachment (attachment anxiety and attachment avoidance) and individual and relationship distress using actor-partner interdependence mediation model analyses. The studies presented in the present thesis were approved by the University of Ottawa's Research Ethics Board.

The first study was comprised of two separate studies, both of which aimed to assess a conceptual model examining whether low self-esteem mediates the relationship between insecure romantic attachment and high psychological distress using two independent samples within unique periods in adulthood: a young adult student sample and a sample of couples in later adulthood who are parents. The first sample consisted of 485 Canadian university students (414

females; M age = 19.83 years) who were all in a couple relationship for at least 6 months at the time of participation. Bootstrapping procedures were utilized to assess indirect effects, and results supported our hypothesized model. As such, low self-esteem mediated the relationship between insecure romantic attachment and high psychological distress for both men and women. The second sample consisted of 35 couples in later adulthood who are parents (70 individuals, M age = 41.04 years). An actor-partner interdependence mediational model was tested to assess actor, partner, and indirect effects. Results showed that low male self-esteem partially mediated the relationship between male attachment anxiety and high male psychological distress. Similarly, low female self-esteem partially mediated the relationship between female attachment anxiety and high female psychological distress. Interestingly, high female self-esteem partially mediated the relationship between female attachment avoidance and low female psychological distress. Unexpectedly, low self-esteem in women fully mediated the relationship between female attachment anxiety and low male psychological distress. In the same vein, high self-esteem in women partially mediated the relationship between female attachment avoidance and high male psychological distress.

The second study investigated whether low dyadic trust mediates the relationship between insecure romantic attachment and low relationship satisfaction in a third independent community sample of heterosexual couples engaged in a relationship for at least 12 months. The sample consisted of 199 Canadian couples ranging from young to later adulthood (398 individuals, M age = 31.02 years). An actor-partner mediational model was used to test hypothesized relations. Results revealed that lower dyadic trust partially explained the relationship between both male and female attachment avoidance and male attachment anxiety with lower relationship satisfaction.

Findings from these studies have major implications for both clinical applications as well as future research directions. Specifically, gaining a better understanding of the role of romantic partners in the overall well-being of individuals can confirm as well as guide couple therapy conceptualizations and techniques. Uncovering existing dyadic patterns can also help support romantic relationship theories and shape future research avenues.

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Content of Thesis and Statement of Author Contributions

The present thesis comprises four sections: a general introduction, two major studies, and a general discussion. The general introduction presents the central focus of the thesis, defines the main study variables, theoretically and empirically contextualizes the primary goals of the thesis, and specifies the main objectives of the thesis. The first study aims to test a theoretical model with two samples from distinct adult life periods (i.e., young adult student sample and a sample of couples in later adulthood who are parents). The second study consists of research conducted with a third independent sample of couples from the community that range from young to later adulthood. The first study is entitled *Attachment Across Adulthood: Analyzing Self-Esteem, Romantic Attachment, and Psychological Distress within a Dyadic Model*. The second study will then be presented, which is entitled *Attachment, Trust, and Satisfaction in Relationships: Investigating Actor, Partner, and Mediation Effects*. Finally, the general discussion will present a comprehensive summary and consolidation of the results of both studies. A description of both the clinical and empirical implications of the studies will be discussed. Both studies have been written in manuscript format. The manuscript version for the second study has been submitted and accepted for publication in *Personal Relationships* and the first study will be submitted for publication in a high impact peer reviewed international scientific journal, both of which are peer-reviewed journals. All study materials (i.e., ethics approval notices, consent form, self-report measures) are included as appendices.

Thesis author, Ms. Josée Fitzpatrick, appears as the primary author of both study manuscripts. Thesis supervisor and principal study investigator, Dr. Marie-France Lafontaine, appears as the second author for both studies. Thesis committee member and co-investigator for both samples in Study 1, Dr. Jean-François Bureau, appears as the third author for the first study.

Ms. Fitzpatrick participated in every aspect of the thesis project, including conducting the literature review and conceptualizing the thesis, developing and implementing study procedures and methods, selecting the validated measures, contributing to writing the research ethics request for the first study and subsequent modifications for both studies, recruiting, testing, compensating participants, analyzing data, and writing the thesis document. For the first study, Drs. Lafontaine and Bureau served invaluable roles, such as providing global oversight of the project, monitoring and providing guidance on major aspects of the thesis. For the second study, Dr. Lafontaine helped guide and oversee the major direction of the project, and served as a main advisor for the thesis.

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Chapter I

General Introduction

General Introduction

In the last few decades, a vast body of studies investigating the impacts of attachment patterns on overall well-being has been formed. It is worth noting that many have found a consistent link between insecure attachment and numerous mental health difficulties including, amongst others, substance use disorders, mood and anxiety disorders, suicidality, posttraumatic stress disorders, and personality disorders (see Gillath, 2016, Chapter 11). Additionally, researchers have also conducted hundreds of studies demonstrating a strong association between attachment and the quality of couple relationships, and have increasingly utilized multi-method longitudinal designs to support this link (see Mikulincer & Shaver, 2015, Chapter 10). Although some researchers have begun to study specific pathways relating these constructs, few have conceptualized these associations within dyadic models. The present thesis aims to examine not only how romantic attachment may be associated to psychological distress and relationship dissatisfaction, but also the *mechanisms* through which attachment is associated to the development of distress while testing reciprocal links between romantic partners. The main objectives, utilizing an attachment framework, search to understand how the view of self and of the other may be associated to distress. Specifically, the principle aims include: 1) examining how intrapersonal variables stemming from attachment, specifically self-esteem, may be associated to psychological distress, and how these variables may be associated within and between both partners and 2) to examine how interpersonal variables stemming from attachment, specifically dyadic trust, may be associated to relationship dissatisfaction, again taking a particular interest in how these variables interact within and between both romantic partners.

Conceptualizations of Distress

Most people at some point in their life report suffering, pain, or unhappiness. Individuals make great efforts to try to avoid or reduce general states of distress given its impact on different facets of life (Ross & Mirowsky, 2006). An estimated one in five Canadians is likely to experience high psychological distress, and one in ten will report having a mood disorder, anxiety disorder or substance abuse at any given point (Caron & Liu, 2010). It is therefore not surprising that one of the most prevalent reasons for consulting psychological services is the experience of psychological distress (Cepeda-Benito & Short, 1998). As much as psychological distress can be difficult to live with and manage, romantic relationship distress can be just as distressing to an individual (Christensen, Wheeler, & Jacobson, 2008). Similarly, relationship dissatisfaction is one of the most prevalent reasons for consulting mental health services with one's partner (Halford, 2011). Also, Health Canada (2002) published a report highlighting the major productivity and health care costs of mental illness on the Canadian economy. Since psychological distress and romantic relationship distress are such important factors in general and societal well-being, it is essential to have a better understanding of their originating and maintaining factors.

Measures of Psychological Distress

A large body of research points to the widespread acceptance that psychological distress, whether it takes the form of anxiety, depression, sadness, irritability, self-consciousness or emotional vulnerability, is strongly linked with physical morbidity, increased use of health services, lower quality of life and shorter lifespan (Lahey, 2009). Given the personal and social impairments and economic ramifications (Regier, Narrow, Kuhl, & Kupfer, 2011), it is imperative, to not only draw clinical attention to this matter, but also to gain a better empirical

understanding of this issue. At the end of World War II, dimensional measures of broadly defined emotional difficulties were used to screen war veterans for follow-up psychological care, which included the Health Opinion Survey (MacMillan, 1957) and the Langner Scale (Langner, 1962). However, these scales created significant debate, since they offered no clearly identified threshold scores and were mainly used with dimensional indicators (e.g. mean scores) (Pearlin, Lieberman, Menaghan, & Mullen, 1981).

There was a growing need in clinical practice for proper assessment of psychological distress. For years, semi-structured diagnostic interviews filled this gap and were the standard for measuring psychopathology (Kessler et al., 2002). Nevertheless, these measures had their own limits and could only be used in specific contexts. There was still a need for reliable and validated brief measures of treatment efficacy; in other words a measure able to evaluate a significant reduction of psychological distress, without necessarily relying on diagnostic measures. The original Outcome Questionnaire-45 (OQ-45; Lambert, Lunnen, Umphress, Hansen, & Burlingame, 1994) was one of the first questionnaires to address this shortcoming. The OQ is a brief self-report measure, created to evaluate a wide array of symptomatology and role functioning (Lambert et al., 1994). It was designed to assess intrapersonal discomfort or symptomatic distress, interpersonal functioning, and social role performance (Lambert et al., 1994) and has been shown to perform well with different ethnic groups (Abanisher, 2008; Nebeker, Lambert, & Huefner, 1995). The Outcome Questionnaire-45.2 (OQ-45.2; Lambert et al., 1996) was shown to have even better internal consistency reliability than the OQ-45. Given its ability to obtain a large amount of information, despite its relative brevity, the OQ-45.2 is one of the most popular measures of psychological distress in Canada and the United States and has been translated and validated in multiple other languages (Wennberg, Philips, & de Jong, 2010).

Measures of Relationship Dissatisfaction

In a similar manner, romantic relationship dissatisfaction can also have a profound impact on individuals' quality of life. Romantic relationship dissatisfaction has been one of the central focuses of relationship research in the past few decades. It has been shown to lead to increased risk for depression (Kurdek, 1998), anxiety (McLeod, 1994), and a multitude of health problems (Prigerson, Maciejewski, & Rosenheck, 1999). Locke and Wallace (1959) were some of the firsts to develop a self-report marital adjustment scale (Marital Adjustment Test; MAT). They defined marital adjustment as the accommodation of a husband and wife at any particular time. They attributed importance to levels of conflict present in the relationship, shared activities between partners, and the ability to resolve problems (Locke & Wallace, 1959). However, one of this questionnaire's greatest limitations is that it has limited applicability, since it was specifically constructed for married couples.

Spanier (1976) created the Dyadic Adjustment Scale to address this limit by developing a measure applicable to different sexual orientations, relationship statuses, genders and ethnicities. He defined dyadic adjustment as "[...] a process, the outcome of which is determined by the degree of: (1) troublesome dyadic differences; (2) interpersonal tensions and personal anxiety; (3) dyadic satisfaction; (4) dyadic cohesion; and (5) consensus on matters of importance to dyadic functioning" (p. 17). A recent meta-analysis conducted by Graham, Liu, and Jeziorski (2006) found that the DAS did in fact consistently produce scores with acceptable internal consistency, and asserted that this scale can be used to assess a wide range of romantic relationships. Other benefits of using the DAS include its ability to collect a wealth of information as well as its popularity (Graham et al., 2006). Although the DAS-4 (Sabourin, Valois, & Lussier, 2005) does not share this last benefit, it has been shown to be an effective and

validated short version of this widely used scale that is significantly less contaminated by socially desirable responding. The four items evaluated in the DAS-4 maintain the theoretical consistency of the Satisfaction scale and have been shown to consistently discriminate participants as distressed and non-distressed couples.

Conceptualizations of Attachment

Numerous theorists and clinicians have conceptualized different ways of understanding the development of distress. This diversity in conceptualizations persists today and contributes to the divergence of therapeutic approaches in clinical psychology. One such theoretical model is the medical model or the ‘disease model’ supported by Kaplan and Sadock (1988). Within this model, psychological distress may be viewed as a disorder such as any other illness and is thought to be caused by observable physiological changes within the brain (Tyrer, & Steinberg, 1998). Additionally, the psychodynamic model suggests that distress is viewed as conflicts between different levels of mental functioning, specifically between conscious and unconscious levels influenced by early childhood experiences (Tyrer, & Steinberg, 1998). In the same vein, many maintain that distress may be best understood within a cognitive model. Young was one of the first to defend his own cognitive theoretical model, suggesting that cognitive schemas develop from personal experiences and interactions with others and that maladaptive schemas can lead to the development of many psychological disorders (Kellogg & Young, 2008; Young, Klosko, & Weishaar, 2003; Young, 1994). The behavioural model was also suggested as a framework for understanding the development of distress. Based on Learning Theory, this model regards distress symptoms as learned habits stemming from the interaction between external triggers and personality (Ryrie & Noramn, 2004).

Although, many theories have been useful to conceptualize distress, attachment theory has been increasingly used as a framework for studying factors leading to distress, given its integration of explanatory developmental, interpersonal, and personal factors.

Early Attachment

Bowlby (1982/1969, 1973, 1980) most commonly known for his classic trilogy, *Attachment and Loss*, established the first formal statement of attachment theory. He suggested the existence of an innate attachment behavioural system, which would help explain the tendency of young children to maintain proximity and closeness to their primary attachment figure when in novel, unpredictable, and threatening environments. Once the attachment figure responds sensitively to their child's unmet needs with protection, responsiveness, and support, a sense of safety can be developed in order to soothe the child. Through repeated interactions with caregivers, over time, the child begins to recognize and anticipate the behaviour of their primary caregiver. When attachment figures are perceived as accessible and responsive, the caregiver is used as a 'secure base', which in turn promotes curiosity, exploration, and affiliation. However, if the child fails to receive a sense of security and continuously feels threatened, the child cannot learn adaptive emotion regulation skills, such as proximity seeking, and, as a result, insecure patterns of attachment are adopted (Cooper, Shaver, & Collins, 1998). In the latter scenario, bids for attention may have been unattended to, inconsistently responded to, or even ignored. There is, therefore, a general inability to trust in the caregiver's availability and responsiveness, which compromises worry-free exploration and the development of a sense of confidence and mastery.

These attachment experiences, be they positive or negative responses, generalize into internal working models of the self and of others. When significant others are available, positive representations and expectations about others' availability and positive views of the self as

competent are formed (Mikulincer, Shaver, & Pereg, 2003). However, when caregivers are not responsive, negative representations of self and of others are formed (e.g., worries about others' good will and doubts about self-worth) (Mikulincer et al., 2003). These working models guide future relationships in adulthood. Although not immutable, they allow regulating and understanding attachment-related behaviours of oneself and of others in the environment (Collins & Read, 1994).

Adult Attachment

Although Bowlby's studies (1980) mainly focused on childhood attachment bonds, he, and many subsequent researchers, argued that attachment functions present in infancy could also apply to adult couple relationships, such as seeking comfort and security from romantic partners in times of stress (Cassidy & Shaver, 2016). It was suggested that internal working models developed in early childhood could help guide perceptions and behaviours later on in adult relationships. Early attachment experiences affect the types of mental working models that are constructed; and these working models act as templates through which all relationships or subsequent relationship experiences are chosen, filtered, and interpreted (Leary & Tangney, 2003). Increasingly, theorists are proposing a hierarchical organization of adult attachment mental representations, ranging from general (i.e., higher levels) to specific (i.e., lower levels) (Collins & Allard, 2001; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). Rather than internalizing one single model of self and of others, it is suggested that at higher levels, individuals hold more abstract assumptions of relationships, and at lower levels, information is retained to guide individuals within specific relationships (Pietromonaco & Barrett, 2000). Some evidence also points to the impacts romantic partners may have on more general working models. As such, Collins, Guichard, Ford, and Feeney (2004) assessed perceptions of partner's

level of response and support in the relationship, and found that general working models were moderated by relationship-specific models. Therefore, attachment theory highlights the relative stability of attachment patterns across the lifespan as well as the possibility of change (Cassidy & Shaver, 2016). Both attachment theory and applied clinical psychology attest to the possibility of change through satisfying relationships, particularly romantic relationships, which may disprove earlier negative views of the self and of others (Cassidy & Shaver, 2016; Johnson, 2004).

Given the power of these later attachment bonds, researchers began to have a greater interest in adult attachment. For example, Feeney, Noller, and Hanrahan (1994) developed the *Attachment Style Questionnaire* (ASQ), a popular measure among theorists, which categorizes current general adult attachment styles in adulthood either as secure, avoidant or anxious. This measure does not discriminate between relationships and searches to assess a general measure of attachment in adulthood. Hazan and Shaver (1987) were the first, however, to devote a greater focus to researching romantic relationships and romantic love as an attachment process. They developed a three-category measure of adult romantic attachment that was similar to that observed in infancy. However, through the years, there has been a growing consensus that romantic attachment should be assessed using a dimensional measure. Brennan, Clark, and Shaver (1998) created the Experiences in Close Relationships (ECR) questionnaire to assess a two-dimensional conceptualization of romantic attachment: *attachment anxiety* and *attachment avoidance*. Romantic *attachment anxiety* is defined by worries about the relationship, an excessive need for approval, ‘clingy’ behaviours, and the fear of being rejected (Brennan et al., 1998; Mikulincer et al., 2003). Evidence supports the idea that the anxious self-concept is overinvested in, and dependent on, constant love and approval (Hepper & Cannarley, 2012). Romantic *attachment avoidance* is defined as an inclination to emotionally and physically

distance themselves from others or attachment related distress. Individuals who are high in attachment avoidance will often be excessively self-reliant, fear emotional dependence and interpersonal intimacy, and be unwilling to self-disclose (Lopez, Mauricio, Gormley, Simko, & Berger, 2001; Mikulincer et al., 2003). Finally, *attachment security*, which is represented by low scores on both dimensions, is defined as feeling a sense of security, comfort with closeness and interdependence, being able to depend on other's support when needed, and adaptive coping strategies (Brennan et al., 1998). Limitations of the ECR include not assessing the full scope of both the avoidance and anxiety dimensions as well as the presence of a consistent association between the two insecure attachment dimensions (Scharfe 2016).

Attachment and Distress

Attachment theory suggests that securely attached children may, throughout their experiences, derive positive coping resources from their attachment figures (Bowlby, 1973). When caregivers are relatively attentive and responsive in a consistent manner, infants are reinforced when they directly communicate their needs. In turn, as previously mentioned, when underlying primary attachment needs are met, such as those of safety and comfort, these experiences reinforce positive internal working models of self (i.e. as worthy of love) and internal working models of others (i.e. as responsive and trustworthy). However, if caregivers are unreliable and unresponsive to requests for fulfilment of attachment needs, these experiences reinforce negative internal working models in infants. Therefore, secure attachment orientations help form constructive coping strategies to deal with distress (Mikulincer & Florian, 1998). Conversely, insecure attachment leads individuals to cope with distress by either exaggerating the distress and seeking out reassurance, when high in attachment anxiety (Mikulincer & Florian, 1995; Mikulincer & Shaver, 2007, 2008), and leads individuals to cope by inhibiting emotions

and denying negative reactions, when high in attachment avoidance (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Mikulincer & Shaver, 2007, 2008). Individuals high in attachment anxiety often use hyperactivating strategies (Cassidy & Kobak, 1988), which involve increased monitoring of threats to the self and of attachment figure availability. These include attempts to elicit partner's support through clinging and controlling responses (Mikulincer et al., 2003). Individuals high in attachment avoidance often use deactivating strategies (Cassidy & Kobak, 1988), which involve deactivating the attachment system to avoid frustration and distress when the attachment figure is unavailable or unresponsive. These strategies include relying on the self, denying attachment needs, and avoiding closeness (Mikulincer et al., 2003). Both sets of strategies, in the long-term, have been shown to increase psychological distress (Lopez et al., 2001) and relationship dissatisfaction (Brassard, Lussier, & Shaver, 2009; Simpson & Rholes, 1998).

There has been a growing body of evidence linking insecure attachment with psychological distress. As such, studies suggest that attachment insecurity is related to the development of symptoms of psychopathology, including depression and anxiety disorders with effect sizes ranging from small to moderate (avoidance $\beta = .10$ to $.13$, anxiety $\beta = .46$ to $.66$) (Brenning, Soenens, Braet, & Bosmans, 2011; Hankin & Abramson, 2001; Pascuzzo, Moss, & Cyr, 2015; Zeijlmans van Emmichoven, van IJzendoorn, de Ruiter, & Brosschot, 2003). Additionally, Lopez and Brennan (2000) provide a review of studies suggesting that attachment security has been consistently linked with lower levels of anxiety, depression and anger compared to attachment insecurity.

Additionally, more studies are suggesting that insecure attachment is strongly linked to relationship dissatisfaction. Given the overwhelming evidence pointing to this relationship,

Mikulincer and Shaver (2007) provided an exhaustive literature review on the subject. It is suggested that attachment worries and insecurities lead to relationship dissatisfaction, since hyperactivating and deactivating insecure attachment strategies interfere with the adaptive restoration of relationship accord and reinforce existing insecure working models (Mikulincer & Shaver, 2007). Therefore, attachment insecurity is highly linked with relationship dissatisfaction for both men and women (Carnelley, Pietromonaco, & Jaffe, 1994; Nofhle & Shaver, 2006; Treboux, Crowell, & Waters, 2004). Recent meta-analysis have found that attachment avoidance has a stronger association with relationship satisfaction compared to attachment anxiety with moderate correlational effects (avoidance $r = -.42$ to $-.48$, anxiety $r = -.33$ to $-.35$) (Hadden, Smith, & Hadden, 2014; Li & Chang, 2012).

Mechanisms Involved in Explaining the Link between Attachment and Distress

Given the increasing number of researchers using an attachment framework to study distress, some have devoted their attention to better understanding the *pathways* mediating the link between attachment and distress. Past research has placed a greater focus on studying intrapersonal mediational factors and interpersonal mediational factors when studying distress, including psychological distress and relationship dissatisfaction. For example, among intrapersonal mediating factors, research has suggested that low self-esteem (Hankin, Kassel, & Abela, 2005; Roberts, Gotlib, & Kassel, 1996), low self-efficacy (Mallinckrodt & Wei, 2005), and maladaptive perfectionism (Wei, Mallinckrodt, Russell, & Abraham, 2004) play a significant role in explaining the link between attachment insecurity and psychological distress. Although many intrapersonal factors have been identified as playing a role in the relationship between attachment and psychological distress, the present thesis will specifically focus on self-esteem given the theoretical importance of the view of self in attachment as well as personal distress.

This study will take a unique look at two distinct adult time periods to better understand how these phenomena may fluctuate throughout the lifespan when experiencing unique realities. Additionally, understanding how one partner's attachment and self-esteem may affect the other partner's distress (i.e. partner effects), may illustrate nuanced effects that cannot be solely explained by factors within an individual.

In the same vein, interpersonal factors have increasingly been investigated when studying relational outcomes. Of note, among the interpersonal mediating factors explaining the relationship between general adult attachment insecurity and relationship dissatisfaction, research has increasingly focused on conflict resolution skills (Feeney, 1994; Marchand, 2004), negative partner attributions (Cobb, Davila, & Bradbury, 2001; Gallo & Smith, 2001; Meyers & Landsberger, 2002; Sumer & Cozzarelli, 2004), and maladaptive coping strategies (Berant, Mikulincer, & Florian, 2003; Feeney, 1999). Given the importance of the internal working model of others in attachment research, the present thesis will investigate how dyadic trust may partially explain relationship dissatisfaction within an attachment framework. This study is the first of its kind to use a dyadic approach to test these phenomena within one model in order to assess how attachment and dyadic trust in each partner may impact the other partner's relationship satisfaction.

Self-esteem. Self-esteem has been defined in a multitude of ways and has been aggregated into a variety of constellations of dimensions, types, and subtypes (Kirkpatrick & Ellis, 2001). A commonly used measure of self-esteem is the State Self-Esteem scale (SSES; Heatherton & Polivy, 1991). This measure consists of 20-items that assess momentary fluctuations in self-esteem and three factors including performance, social and appearance self-esteem (Bagozzi & Heatherton, 1994). Although trait and state self-esteem are highly correlated,

researchers base their choice of measure on whether they are interested in predicting long-term outcomes or in evaluating the immediate effects associated with thoughts and feelings regarding the self (Heatherton & Wyland, 2003). Given that the current study is more interested in measuring potential long-term outcomes, a trait measure of self-esteem was thought to be more appropriate in the context of an attachment framework.

As such, global self-esteem has been the most widely addressed type of self-esteem by researchers in the field. It has been evaluated most often with the use of the Rosenberg's Self-Esteem scale (RSE), due to this scale's comprehensive, yet brief, evaluation of global self-esteem as well as its high levels of validity and reliability (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Vallières & Vallerand, 1990). Rosenberg (1965) acknowledged that self-esteem is a global construct having to do with self-appraisal or valuation of one's self and that a number of facets contribute to this global or general view. Specifically, global self-esteem refers to the individual's positive or negative attitude toward the self as a totality (Rosenberg et al., 1995). From an attachment theory framework, attachment insecurity is slowly developed from having unmet attachment needs as well as inconsistent responsiveness and care from attachment figures. In fact, growing evidence suggests that inadequate attention and sensitivity to primary attachment needs is the central mechanism that leads to low and unstable self-esteem (Mikulincer & Shaver, 2012). Studies have consistently shown a significant association between adult attachment and self-esteem with small to moderate correlational effects (avoidance $r = -.21$ to $-.44$, anxiety $r = -.17$ to $-.57$) (Goodall, 2015; Molero, Shaver, Ferrer, Cuadrado, & Alonso-Arbiol, 2011). In the past few decades, researchers have also stressed the importance of self-esteem influencing happiness and well-being (e.g., Diener & Diener, 1995). Increasingly researchers have also found significant links between low self-esteem and antisocial behavior,

eating disturbances, depression, anxiety, suicidal ideation, as well as overall poorer mental health (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; McGee & Williams, 2000; Orth, Robins, & Roberts, 2008; Trzeniewski, Donnellan, Moffitt, Robins, Poulton, & Caspi, 2006). A recent meta-analysis found consistent links between self-esteem and psychological distress with small effect sizes (depression $\beta = -.16$, anxiety $\beta = -.10$) (Sowislo & Orth, 2013). There is now a large body of work showing that global self-esteem, in particular, is related to overall psychological well-being, whereas specific esteem, such as academic achievement, is related more directly to behaviour (Owens, Stryker, & Goodman, 2001). The literature on the subject shows that individuals with a high sense of self-worth are confident of their ability to confront problems and that this self-confidence helps them with active problem-solving skills, which are in turn thought to reduce the risk of subsequent psychological distress (Krause & Alexander, 1990). Therefore, for the current study, the construct of global self-esteem was viewed as one of the best measures to link romantic attachment to psychological distress.

Dyadic trust. Past researchers have defined trust in various ways, according to their specific and unique research contexts. Rotter (1980) defined general trust as an overall expectancy that life's circumstances are predictable and individuals can be relied on. Therefore, he conceptualized trust as a somewhat static aspect of one's personality that poses an evaluation on society as a whole. However, Larzelere and Huston (1980) have argued that trust may be more accurately accounted for by an interpersonal theoretical perspective. They defined dyadic trust as the amount of benevolence and honesty a partner feels their significant other expresses towards them. Given that trust in romantic relationships is based on particular experiences and interactions in the relationship, which can differ from general evaluations of the character of people in the society, Larzelere and Huston (1980) created a measure to evaluate the specificities

of dyadic trust. The Dyadic Trust Scale (DTS; Larzelere & Huston, 1980) was developed and has been shown to be a reliable and valid tool to assess dyadic trust for all types of couple relationships, ages, and cultures. It has also been the first measure of dyadic trust to be validated with same-sex couples (Gabbay, Lafontaine, & Bourque, 2012).

Mikulincer (1998) conceptualized dyadic trust using an attachment theory perspective. Since dyadic trust is founded on confidence in, and positive expectations of, a partner's availability and responsiveness, when attachment figures fail to meet expectations and needs, trust can therefore be compromised. In that sense, individuals' high in attachment insecurity would not necessarily use attachment strategies that depend on partner's availability and would rather use strategies that aim to protect themselves (i.e., hyperactivating or deactivating strategies) (Simpson, 2007). Evidence points small to moderate correlational effects for the relationship between adult attachment and trust (avoidance $r = -.19$ to $-.58$, anxiety $r = -.16$ to $-.20$) (Brennan & Shaver, 1995; Simpson, 1990). Research and theories have also emerged in the field of dyadic trust and pointed to its importance in interpersonal relationship functioning. In fact, dyadic trust has been reported to be one of the most commonly mentioned reasons for the deterioration and termination of relationships (Miller & Rempel, 2004). Trust has also shown moderate correlation effects with relationship satisfaction ($r = .51$) and similar standardized coefficient effects ($\beta = .41$) (Campbell, Simpson, Boldry, & Rubin, 2010; Patrick, Beckenbach, Sells, & Reardon, 2013) However, little is still known about its link to relationship processes and outcomes. The current study will address this issue by studying dyadic trust as a primary pathway linking romantic attachment and relationship satisfaction.

Previous Research Limitations and Current Thesis Strengths

First, although researchers have taken an interest in all direct links between romantic attachment, self-esteem, and psychological distress, as well as the direct links between romantic attachment, dyadic trust, and relationship satisfaction, no studies have yet looked at the indirect links between these specific variables. Some studies have investigated indirect links between similar constructs, but the aforementioned theoretical underpinnings help contextualize the importance of studying these specific variables within comprehensive mediation models. The current studies are important, not only to know that there are existing direct links, but to understand how and why insecure romantic attachment can be associated to the development of distress in adults through the study of indirect links.

Second, many have used attachment to predict internal representations of self and of others, but most have use prototypal adult attachment measures to do so, even though most researchers in the field agree upon the use of a two-dimensional conceptualization of romantic attachment. Newer studies take into account the agreed upon two-dimensional nature of romantic attachment, but still revert to the use of prototypal adult attachment measures to then create two-dimensional latent variables in order to represent this conceptualization (Berry, Wearden, Barrowclough, & Liversidge, 2006; Karakurt, 2012). We used the Experiences in Close Relationships-12 questionnaire (ECR-12; Lafontaine, Brassard, Lussier, Valois, Shaver, & Johnson, 2015) in both studies to address this issue.

Third, a large proportion of studies have used small convenience samples that often include participants who are not currently involved in a relationship. However, individuals may have difficulties with memory recall, which may bias results. Although one university convenience sample is used to assess phenomenon within a young adult population, the current

thesis will search to address both of these limitations by using two community couple samples, one with a particularly large sample size. This is an important strength of both studies given the great difficulty to recruit both partners of couple relationships.

Finally, while many have acknowledged the importance of the role of insecure attachment in psychological and relational distress, no study to our knowledge has yet to assess these variables with the use of dyadic data analysis. Given the very nature of romantic attachment theory, it is ideal to assess the reciprocal impacts that partners have on each other. With the recent developments in dyadic data research methods, we are now able to study not only the effect of an individual's characteristics on his or her own self (actor effect) but we can also study the effect an individual's characteristics has on his or her partner (partner effect). The current study will address this limitation by not only taking into account the direct actor and partner effects but also indirect actor and partner effects in order to understand all possible dyadic explanatory relationships. Finally, the use of dyadic data models within Structural Equation Modelling analyses will allow the testing of specific dyadic patterns that may help orient and guide future research on conceptual patterns underlying couple relationships.

The Current Studies

The three studies included in this thesis will explore two distinct and yet complementary phenomenon of distress at the intrapersonal level (self-esteem: Study I) and at the interpersonal level (dyadic trust: Study II). More specifically, stemming from a romantic attachment foundation, self-esteem and dyadic trust will respectively be used to understand psychological distress and relationship dissatisfaction. A more detailed overview of studied variables and specific objectives/hypotheses will be presented in both studies. Below, a brief review of research objectives is presented. It is important to note that although both studies have similar

methodological frameworks, they differ considerably on research implications and outcomes. Although Study I does not necessarily precede or inform Study II, each study contributes to our overall understanding of distress using an attachment framework. Additionally, even though both studies could be seen as separate and independent studies of types of distress, both are complementary, as they increase our knowledge about invaluable factors stemming from attachment (i.e., self-esteem and dyadic trust). In addition, both studies use these variables to further advance our understanding of psychological distress and relationship dissatisfaction. It is thought that pairing intrapersonal factors together and interpersonal factors together would serve, theoretically, as the strongest models to assess these relationships. Both studies, therefore, share a common goal of understanding distress, while together the studies help illustrate a larger picture of intrapersonal and interpersonal distress within the attachment framework.

In the first study, self-esteem will be used to understand the link between romantic attachment and psychological distress. Specifically, it is believed that low self-esteem will help explain the relationship between insecure romantic attachment (anxiety and avoidance) and higher psychological distress. This model will be assessed in two independent samples including a sample of young adult students and a sample of couples in later adulthood who are parents. A first simple (actor only) SEM bootstrap mediation analysis will assess indirect effects within the sample of young adult students. A second actor-partner interdependence mediation model will be used to assess how each partner's attachment orientation influences both individuals' and their romantic partner's experience of psychological distress within sample of couples in later adulthood who are parents. This study is unique in seeking to specifically understand how variables stemming from the individual (i.e., self-esteem) help explain outcomes at the

intrapersonal level (i.e., psychological distress) deepening our understanding of the view of self in romantic attachment.

In our second study, dyadic trust will be used to assess the link between romantic attachment and relationship dissatisfaction. It is believed that low dyadic trust will help explain the relationship between insecure romantic attachment (anxiety and avoidance) and lower relationship satisfaction. This study will consist of a third unique community couple sample ranging from young to later adulthood utilizing different recruitment strategies than the first major study. This study differs significantly from the first in the sense that it searches to specifically understand how variables stemming from the relationship (i.e., dyadic trust) help explain outcomes at the interpersonal level (i.e., relationship satisfaction) depending on each partner's romantic attachment orientation.

In summary, both of the studies are expected to contribute to a more thorough understanding of distress by examining its associations with self-esteem and dyadic trust within an attachment framework. As a whole, this thesis aims to broaden our understanding of the link between romantic attachment and distress. Implications of each study will be thoroughly discussed in each respective study, as well as in the General Discussion section of the thesis.

Chapter II

Attachment in Young and Later Adulthood: Analyzing Romantic Attachment, Self-Esteem, and Psychological Distress Within a Dyadic Model

Josée Fitzpatrick, Marie-France Lafontaine, and Jean-François Bureau

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Abstract

Evidence suggests that both intrapersonal factors, as well as interpersonal factors serve as predictors of psychological distress (Frey, Tobin, Beesley, 2004; Leibert, 2010; Rice, Richardson, & Clark, 2012). Although researchers have conducted studies to understand contributing factors, few have investigated a comprehensive model of psychological distress grounded in attachment theory spanning across the period from young to later adulthood. As such, one theoretical model was studied by assessing whether low self-esteem mediated the relationship between insecure romantic attachment and the experience of psychological distress within two samples from different populations. The first study was comprised of 485 young adult Canadian university students in romantic relationships (i.e., ranging from 17 to 25 years old), and the second study was comprised of 35 Canadian heterosexual couples from the community in later adulthood (i.e., 25 years old and up) who are parents. All participants completed the same battery of questionnaires. For the young adult student sample, results showed that low self-esteem mediated the relationship between insecure romantic attachment and high psychological distress in men and women. Using an actor-partner interdependence model, we found that lower self-esteem partially explained the relationship between high attachment anxiety in men and women and their own higher psychological distress, whereas high self-esteem helped explain the relationship between high attachment avoidance in women and their own lower psychological distress. Unexpectedly, two interesting partner effects were found, shedding more light on predictors of male psychological distress.

Keywords: romantic attachment, self-esteem, psychological distress, Actor-Partner Interpersonal Model

Attachment Across Adulthood: Analyzing Self-Esteem, Romantic Attachment, and Psychological Distress Within a Dyadic Model

An important concern for adaptive societal functioning is the level of psychological distress experienced in the general population, given the potential detrimental effect on both emotional and relational well-being as well as individuals' general level of functioning in daily life. It is estimated that 5%-27% of the general population experiences some degree of psychological distress at one point in time (Drapeau, Marchand, & Beaulieu-Prévost, 2011). In light of these findings, researchers are progressively searching to identify new possible factors that lead to the development of psychological distress in one's life. A growing body of work on the subject has found an association between general adult insecure attachment and psychological distress, specifically with regard to depressive symptoms (e.g., Kang, Lee, & Kang, 2014; Wei, Mallinckrodt, Larson, & Zakalik, 2005). Even though evidence points to this important relation, a limited number of studies have used a comprehensive attachment perspective to understand the mechanisms that link insecure romantic attachment to psychological distress. Increasingly, researchers are also investigating the relationship between self-esteem and psychological distress within specific populations (Henriques & Shivakumara, 2015; Varescon, Leignel, Gérard, Aubourg, & Detilleux, 2013). Two independent samples, across unique adult time periods, were used to assess a conceptual model based in attachment theory to further explore the relationship between romantic attachment, self-esteem, and psychological distress. Studying populations experiencing distinct life stressors including academic pressure, job satisfaction, parenthood, and relationship stability offers a unique perspective on diverging effects of attachment throughout different periods of adulthood.

Overview of Attachment

Attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982; Bretherton, 1985) stipulates that constant and reliable responses to the needs of a child from their primary caregiver helps mold the development of working models of self and of others. A consistent offering of care and support in times of need in the parent-child relationship fosters the development of a secure attachment bond. Here the child may feel safe—a “felt proximity”—with their caregiver. In contrast, inconsistent responses to a child’s needs can lead to an insecure attachment bond. In this instance, the child fails to be soothed and may resort to using indirect strategies to meet their need for proximity (McConnell & Moss, 2011). These negative experiences with the primary attachment figure can, in turn, mold negative working models of self and of others (Cassidy & Shaver, 2008). *Working models of others* refers to the representations we have of the availability of attachment figures and their responses toward us, whereas *working models of self* refers to how individuals see themselves and whether they are competent and worthy of love (Bowlby, 1969/1982).

Another essential component of attachment theory includes examining attachment later in life and understanding how internal working models are represented and expressed. An individual’s attachment system, after operating for years with primary attachment figures, integrates representations of availability and responsiveness of attachment figures in the working models, which allude to the capability of actively procuring the attention and affection required to fulfill needs. In young adulthood, one of the most important attachment representations is an individual’s romantic partner (Hazan & Shaver, 1987). In light of this information, research has put much emphasis on romantic attachment, which is best characterized by two dimensions: anxiety and avoidance (Brennan, Clark, & Shaver, 1998). *Attachment anxiety* refers to the fear of rejection, an excessive need for approval, and worries when one’s partner is unavailable

(Bartholomew & Horowitz, 1991; Brennan et al., 1998). Individuals high in attachment anxiety tend to use *hyperactivating strategies* (e.g., excessively seeking others' reassurance through clinging and controlling responses) in order to cope with strong emotional responses since distress is exaggerated, as it is seen as an uncontrollable threat (Lopez, Mauricio, Gormley, Simko, & Berger, 2001). *Attachment avoidance* refers to the fear of emotional dependence and interpersonal intimacy, excessive need for self-reliance, and unwillingness to self-disclose (Brennan et al., 1998). Individuals high in attachment avoidance tend to use *deactivating strategies* by inhibiting emotional reactions, denying experiencing negative affect, and coping with their distress by relying on themselves with the goal of protecting themselves against rejection (Lopez et al., 2001). Therefore, individuals high on one or both of these dimensions are said to be insecurely attached. When an individual's scores are low on both of these dimensions, they are said to be securely attached, which is defined by the ease of finding comfort with closeness and the ability to depend on others for support as means of regulating one's emotions in times of need (Mikulincer, Shaver, & Pereg, 2003). This persistent sense of security allows these individuals to explore their environment with curious regard and interact with others effectively and with enjoyment (Shaver & Mikulincer, 2007).

Attachment and Self-Esteem

A common thread between insecurely attached individuals is a history of constant unmet needs or unsatisfactory care provided by their attachment figure. In fact, researchers point to the attachment figure's lack of sensitivity and responsiveness as the main element that contributes to a lack of self-cohesion, doubts about one's internal coherence, and unstable self-esteem (Mikulincer & Shaver, 2016). As such, attachment theory serves as an important theoretical framework to understand how self-esteem may be shaped and formed. Responsiveness from the

attachment figure may crystallise working models that serve as guides to learn how to react to others and provides building blocks for self-esteem and self-worth by informing them of their own value (Mikulincer & Shaver, 2016). Thus, in adulthood, similar patterns may be observed in romantic relationships where attachment insecurity (i.e., high in attachment anxiety or attachment avoidance) may negatively influence self-esteem compared to attachment security, since individuals may be receiving inadequate responses to their attachment needs in their current relationship. Many of the pioneering researchers in the field of attachment took an interest in this link given its importance to the very meaning of attachment. Bartholomew and Horowitz (1991) were the first to study the link between general adult attachment and global self-esteem in a sample of undergraduate students. Results indicated that individuals who were categorized as being secure (i.e., low anxiety and low avoidance) and dismissing (i.e., low anxiety and high avoidance) had higher global self-esteem, whereas individuals matched with the preoccupied (i.e., low avoidance and high anxiety) and the fearful (i.e., high avoidance and high anxiety) prototypes had lower global self-esteem.

Later on, other researchers have consistently provided evidence for the link between both general and romantic adult attachment anxiety and low, unstable self-esteem (Brennan & Bosson, 1998; Brennan & Morris, 1997; Foster, Kernis, & Goldman, 2007; Mikulincer, 1995). However, the relationship between attachment avoidance and self-esteem has not been as constant or clear in past research.

Although people with high avoidance rely on themselves for coping, some past researchers have confounded this with having high self-esteem. Theorists are starting to stray from this past misconception, now identifying attachment avoidance strategies as a way to protect a poor sense of self. For starters, Foster et al. (2007) conducted a study that examined general adult

attachment as a predictor of self-esteem level and stability, and they found that both attachment anxiety and attachment avoidance were linked to lower self-esteem. In this study self-esteem stability was measured by the fluctuations in self-esteem levels over time (i.e., higher standard deviations indicated self-esteem that is more unstable. Gender was included in their analyses as a moderating variable. Although no significant effect was found, they found that higher attachment avoidance predicted higher self-esteem stability for men ($r = -.28$, $p = .18$), but more unstable self-esteem for women ($r = .22$, $p = .07$). However, once they removed two extreme scores from their female sample no association was found ($r = .03$). Berry, Wearden, Barrowclough, and Liversidge (2006) also investigated the link between general adult attachment and self-esteem. They found a similar result; specifically, a significant negative relationship between both insecure attachment dimensions (i.e., anxiety and avoidance) and lower self-esteem. Gender was not included in their model. Finally, a more recent study conducted by Karakurt (2012) investigated this link using a sample of undergraduate students involved in a romantic relationship; however, gender was not included in the model. This study measured attachment avoidance and attachment anxiety using both measures of general adult attachment and romantic attachment. Results showed that both latent variables (i.e., insecure attachment) of both insecure model of self and insecure model of others predicted higher feelings of inadequacy. Therefore, although early research suggested a difference existed in the relationship between self-esteem and high attachment anxiety (i.e., negative association, whereby evidence of attachment anxiety was indicative of low self-esteem) and self-esteem and high attachment avoidance (i.e., positive association, whereby evidence of attachment avoidance was indicative of high self-esteem), more recent research indicates that both insecure romantic attachment dimensions are linked with lower global self-esteem.

Although few studies have investigated partner effects, the link between an individual's attachment orientation and their partner's self-esteem can be understood by deriving from a theoretical perspective (i.e., attachment theory). More specifically, deactivating strategies privileged by individuals who are high in attachment avoidance may deny attachment needs, avoid closeness and intimacy, consistently invalidate the emotional needs of their partner, and consequently significantly influence how the partner views himself or herself (Mikulincer et al., 2003). In the same vein, hyperactivating strategies adopted by individuals who are high in attachment anxiety may also consistently invalidate the emotional needs of their partner because of their coping strategies, which fosters anxious, hypervigilant attention to their partner's actions and behaviours in an attempt to identify possible waning interest or impending abandonment (Mikulincer et al., 2003). This, in turn, impacts the partner's self-esteem, whom is evaluated as never giving or offering enough to their anxious counterpart. The intense experience of anxiety and fear of rejection as well as their greater probability of perceiving more negative emotions in others (Sheinbaum et al., 2015) can directly impact their cognitive ability to positively contribute or attend to their partner's self-esteem. These theoretical links point to the importance of romantic attachment in understanding self-esteem in both romantic partners.

To our knowledge, only one study has assessed partner effects between romantic attachment and self-esteem. Molero, Shaver, Ferrer, Cuadrado, and Alonso-Arbiol (2011) conducted three separate actor-partner interdependence models linking romantic attachment to the variables of self-esteem, self-efficacy, and relationship satisfaction within a sample of 295 heterosexual couples ranging from 17 to 77 years old ($M= 34.3$). Although both actors' attachment anxiety and attachment avoidance were linked to their own lower self-esteem, no partner or gender effects were found. They attributed the lack of significant partner effects and

the presence of actor-only effects to the greater strength of the shared influences of personal history emphasized by attachment theory (Molero et al., 2011).

Linking Attachment, Self-Esteem, and Psychological Distress

The underlying mechanisms linking attachment and the global view of oneself helps explain the development of psychological distress (Davila, Ramsay, Stroud, & Steinberg, 2005; Sroufe, Carlson, Levy, & Egeland, 1999). Beck, Rush, Shaw, and Emery (1979) suggested that problematic parent-child relationships lead to relatively enduring, underlying attitudes and assumptions, which, in turn, predisposes these individuals to depression later in life. Attachment theory suggests a similar pattern by which insecure attachment relationships are coded as negative working models of self and of others, which increase vulnerability to the impact of interpersonal stressors in adult life (Bowlby, 1980). Many researchers support the idea that self-esteem is an emotional coping resource that protects against the experience of distress (Krause, 1987; Pearlin, Menaghan, Lieberman, & Mullan, 1981). Those with low self-esteem or negative self-appraisals have less motivation and confidence to initiate the use of healthy coping strategies and are more likely to experience psychological distress (Krause & Alexander, 1990; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995).

In the same sense, for both general and romantic adult attachment, partners high in attachment insecurity who have a low or variable self-view (Cassidy, 2000; Pietromonaco & Barrett, 2000) can develop low self-esteem, which, in turn, may impact their partner's well-being. Individuals with low self-esteem may be prone to develop unrealistic doubts about their partner's intentions, which, in turn, undermines relationship well-being and may cause significant psychological distress for the partner (Murray, Holmes, & Griffin, 2000).

Researchers have taken an interest in investigating the specific empirical link between self-esteem and psychological distress. Battle (1978) was one of the first to study this relation and found that higher self-esteem was positively correlated with lower depression scores for both sexes. Similarly, Johnson, Galambos, Finn, Neyer, & Horne (2017) found a link between self-esteem and depressive symptoms, but only in men ($r = -.11, p < .001$). Many others have replicated this specific link (Pearlin & Lieberman, 1979; Rosenberg, 1985; Wylie, 1979). Rosenberg et al. (1995) showed that high global self-esteem was a significant predictor of psychological well-being. Their study found a significant link between self-esteem and nine facets of psychological well-being, including depression, anomie, general anxiety, resentment, anxiety/tension, irritability, life satisfaction, happiness, and negative affective states in a sample of young men.

To date, three studies have searched to understand how attachment may serve as a framework to study self-esteem and psychological distress. One study conducted by Roberts, Gotlib, and Kassel (1996) assessed the mediational effect of global self-esteem on the link between adult attachment and depression in a sample of undergraduate students. In a structural equation model, two latent variables of anxiety (i.e., attachment anxiety) and of closeness (i.e., attachment avoidance) were created with a measure of general adult attachment. No gender differences were found in their preliminary analyses; therefore, gender was not included in their final models. Results showed that attachment insecurity (i.e., attachment anxiety and avoidance) predicted dysfunctional attitudes, which predicted later lower global self-esteem and, in turn, predicted greater symptoms of depression. These associations were not tested in reverse order. A very similar study conducted by Lee and Hankin (2009) tested a mediation model in a sample of adolescents. Specifically, they looked at whether dysfunctional attitudes and low self-esteem

served as mediators in the relationship between insecure romantic attachment and symptoms of depression and anxiety. Structural equation modeling was used to assess this model; however, gender was not taken into account in their analyses. Results demonstrated that both attachment anxiety and avoidance had a direct significant positive effect on symptoms of depression and anxiety. Measures of dysfunctional attitude and low self-esteem significantly mediated the relationship between attachment anxiety and symptoms of depression and anxiety; however, this mediation was not found to be significant for attachment avoidance. Similarly, Krischer-West (2014) investigated whether global self-esteem mediated the relationship between insecure romantic attachment (i.e., attachment avoidance and anxiety) and psychological distress (i.e., negative affect) in a sample of men who identified as having sex with other men. Results showed that self-esteem partially mediated the relationship between insecure attachment (i.e., both attachment avoidance and anxiety) and psychological distress. Although these three studies offer important advances in the field, they utilized unique participant samples, including university student samples or an all male sample that identified as having sex with other men. This limits the ability to contrast effects with adult samples that may experience attachment, self-esteem, and psychological distress differently than young adult student samples. Additionally, all of these studies either did not include gender in their model or found no significant gender differences. Finally, no study has yet looked at the reciprocal impacts between romantic partners when studying these variables, which would allow a fully comprehensive view of attachment dynamics within couple relationships. Although substantial theoretical and empirical evidence points to the relation between romantic attachment, self-esteem, and psychological distress, an important factor to consider remains the differentiated presentation of these specific variables at unique time points in adulthood. In recent years, researchers in these fields have made great

advancements on understanding these phenomena in young adulthood and later adulthood, respectively.

Attachment, Self-Esteem, and Psychological Distress Across the Adult Lifespan

Recently, greater focus has been placed on understanding the distribution and prevalence of attachment dimensions in different groups in adulthood experiencing unique life stressors. In studies focusing on romantic attachment, researchers have found that romantic attachment anxiety is at its highest and attachment avoidance is at its lowest in life among younger adults (Chopik & Edelstein, 2014; Chopik, Edelstein, & Fraley, 2013). Researchers have posited that these differences could be due to relationship duration. Precisely, increased anxiety experienced early in a relationship could reflect a desire for one's partner to demonstrate investment and commitment in the relationship (Chopik & Edelstein, 2014). Studies on older adults reflect a different picture of attachment representations. More specifically, romantic attachment anxiety appears to be at its lowest and attachment avoidance appears to be at its highest in life among middle age and older adults (i.e., 35-64 years old) (Chopik & Edelstein, 2014; Chopik et al., 2013). Researchers have posited that these changes in attachment may be explained by the development of the individuation process and increasing levels of independence (Arnett, 2000; Erikson, 1968).

Additionally, the study of self-esteem has received much attention in the past; specifically, researchers have found that self-esteem generally seems to decline in adolescence before increasing through young and later adulthood, and this tendency holds true for both men and women (Erol & Orth, 2011; Johnson, Galambos, & Krahn, 2015; Orth, Trzesniewski, & Robins, 2010; Robins & Trzesniewski, 2005; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002; Trzesniewski, Donnellan, & Robins, 2003). Many theoretical explanations have been

postulated to help explain self-esteem changes in life. Specifically, in young adulthood, there are sudden changes in role demand that may arouse conflicting feelings, and increasingly complex peer and romantic relationships, which are all phenomena that may influence self-esteem during this life transition (Orth et al., 2010). Conversely, in later adulthood, the personality changes that occur tend to show developments in maturity and overall adjustment (Robins, Fraley, Roberts, & Trzesniewski, 2001). In a chapter authored by Antonucci and Mikus (1988), they describe how personality may change during the transition to parenthood since it is often regarded as a principal mean to a rewarding life and, in turn, may increase one's own role significance and even one's own self-esteem. Another study conducted by Erol and Orth (2011) found that an increased sense of mastery accounted for a large proportion of the normative increase in self-esteem throughout adulthood. Once again, the expected presence of high levels of attachment anxiety in combination with the decreased levels of self-esteem in young adulthood, may serve as important factors in understanding high psychological distress in this specific population. In the assessment of couples in later adulthood compared to young adults in relationships, we may expect different results in the tested model. As for gender differences, many studies have reported higher self-esteem among men in young adulthood compared to women (McMullin & Cairney, 2004; Robins et al., 2002), although again these differences are debated (Donnellan, Trzesniewski, Conger, & Conger, 2007). Some research suggests that this gender gap persists throughout adulthood, however narrows in old age (Robins et al., 2002). Explanations in the literature of this existing gender gap include social-contextual factors associated with preferential treatment of men and gender difference in body image ideals (Robins & Trzesniewski, 2005).

Finally, there still remains an important debate regarding the distribution of the prevalence of psychological distress over the lifespan (Jorm, 2000); however, the general

stipulation that researchers have made is that the prevalence of psychological distress tends to decrease from late adolescence to old age (Brummer, Stopa, & Bucks, 2014; Caron & Liu, 2011; Phongsavan, Chey, Bauman, Brooks, & Silove, 2006; Walters, McDonough, & Strohschein, 2002). Recent studies are beginning to support this overall trend. Evidence indicates that there exists an extremely high prevalence of mental health problems and high levels of psychological distress in university students, which makes them an identifiable at-risk population (Nerdrum, Rustøen, & Rønnestad, 2006; Stallman, 2010). Some researchers have hypothesized that young adults may face unique stressors that place them at a higher risk of psychological distress, including financial stress, having a high work load, and poor coping skills (Stallman, 2010), whereas adults in later adulthood may benefit from increased stability in life.

Overview of the Studies

Guided by romantic attachment (Hazan & Shaver, 1987) and global self-esteem (Rosenberg, 1965) theories, we aimed to assess the mediating role of global self-esteem in the relationship between romantic attachment and psychological distress within two studies that used different samples by using some of the most advanced statistical methods in the field of dyadic data analysis. Although research points to the importance of all of our direct and indirect links with similar variables, to our knowledge, there has yet to exist a study that examines the impacts of romantic attachment and self-esteem on psychological distress in one comprehensive model with either young adult students or with a sample of couples in later adulthood who are parents. Given that researchers have underlined the importance of romantic attachment in adulthood, it has become increasingly important to assess the reciprocal impacts of partners on each other's own psychological well-being, as this area of research has been neglected, a strength for Study 2, which assesses dyadic effects within couples. Additionally, the study of these links at different

time periods in adulthood seems to be increasingly important given accumulating evidence showing normative fluctuations in attachment, self-esteem, and psychological distress across the lifespan (Brummer et al., 2014; Chopik & Edelstein, 2014; Chopik et al., 2013; Robins & Trzesniewski, 2005).

In Study 1, a structural equation model with latent variables was used to assess whether low self-esteem mediates the relationship between insecure romantic attachment and high psychological distress among young adults students while controlling for gender (see Figure 1). Since attachment anxiety is at its highest in young adulthood, we hypothesized that all effects associated with attachment anxiety would be strong, whereas the low prevalence of attachment avoidance in this time period may render weaker results. Finally, given that theoretical underpinnings point to possible gender differences when studying this model and much of the existing empirical data has not incorporated gender within their tested models, this model controlled for gender.

In Study 2, an actor-partner interdependence mediation model (APIMeM; Ledermann, Macho, & Kenny, 2011) was applied to examine the hypothesized associations between a partner's insecure romantic attachment and psychological distress through global self-esteem in a sample of couples in later adulthood who are parents (see Figure 2). First, we hypothesized a series of male and female *actor effects*, including (1) direct links between attachment avoidance, attachment anxiety, and psychological distress. More specifically, we hypothesized that high attachment insecurity would be associated with higher psychological distress. Second, we hypothesized (2) indirect links between romantic attachment and psychological distress through global self-esteem. Specifically, we hypothesized that (2a) one's own lower global self-esteem would help explain the relationship between one's own high attachment insecurity and their own

higher psychological distress and (2b) partner's lower global self-esteem would help explain the relationship between one's own high attachment insecurity and one's own higher psychological distress. Third, we examined male and female *partner effects*, including (3) direct links between attachment insecurity and partner's psychological distress. Therefore, we hypothesized that one's own high attachment insecurity would be associated with partner's higher psychological distress. Finally, we hypothesized (4) indirect effects between one's own high attachment insecurity and partner's psychological distress through global self-esteem. In other words, we hypothesized that (4a) one's own lower global self-esteem would help explain the relationship between one's own high attachment insecurity and partner's higher psychological distress and (4b) partner's low global self-esteem would help explain the relationship between one's own high attachment insecurity and partner's higher psychological distress. Finally, our first statistical model controlled for gender by including it in the model as a covariable, whereas our second statistical model controlled for gender by specifically examining male and female effects separately within the APIMeM.

Study 1: Sample of Young Adult Students

Method

Participants. The sample consisted of 485 young Canadian adults enrolled in university. In line with inclusion criteria, participants were between 17 and 25 years of age ($M = 19.83$ years, $SD = 1.60$ years), had a good understanding of English, and were involved in a heterosexual relationship with the same partner for a minimum of 6 months ($M = 2.07$ years, $SD = 1.54$ years) prior to participation in this study. Four hundred and fourteen (85.36%) participants were not cohabiting with their partner. The majority of participants self-identified as female ($n = 414$, 85.36%) and the rest of the participants self-identified as male ($n = 71$,

14.64%). Additionally, 395 (81.44%) participants identified their relationship status as single, 35 (7.22%) participants identified as being in a common law relationship, 5 (1.03%) participants identified as being married, 1 (0.21%) participant identified as being separated, 2 (0.41%) participants identified as being divorced, 2 (0.41%) participants identified as being widowed, and 45 (9.28%) participants chose not to disclose their relationship status. The highest level of education for the majority of the sample was a high school diploma ($n = 392$, 80.82%), 50 (10.31%) participants had completed a college program, 42 (8.66%) participants had a university degree, and 1 (0.21%) participant chose not to disclose this information. The majority of the sample self-identified as a person of European descent ($n = 340$, 70.10%), 19 (3.92%) participants self-identified as Black, 62 (12.78%) participants self-identified as Asian, 9 (1.86%) participants self-identified as Latino/Hispanic, 20 (4.12%) participants self-identified as Middle Eastern, 10 (2.06%) participants self-identified as First Nations, and 25 (5.16%) participants self-identified as having another racial or ethnic background. Unfortunately, data on the number of children of participants was not collected for this sample. However, for means of comparison, a similar study conducted with a sample of 1055 university students within the same community obtained a rate of 79.90% of participants without children (Fitzpatrick, Lafontaine, Gosselin, Levesque, Bureau, & Cloutier, 2013).

Procedure. Participants were recruited through their psychology course and voluntarily registered for the study through an online research portal, a program which offers first year undergraduate students the possibility to participate in research in a Canadian university. Students received two additional course credit points toward their final course grade for completing the study. All participants were automatically screened for age, relationship status, and proficiency in English before they could register for the study. Each participant was assigned

a five-digit identification code by the ISPR system. This code was solely used to identify participants; no other identifying information was collected.

Participants were then given access to the questionnaire package through a secure and encrypted web-based link that connects to Survey Monkey. First, an introductory information letter was presented to participants that explained the voluntary nature of the study and their right to withdraw at any time without consequence. This information letter also detailed the contact information of the researchers involved and the Protocol Officer for Research in Ethics of the university in case the participants had any questions regarding the study. Following this, participants were free to complete the questionnaire package with the option of saving their responses and resuming participation at a later time. Once participants completed the questionnaires, they received a resource list of psychological services available if requested.

Measures. *Sociodemographic Information.* Participants were asked to provide personal information (e.g., age, gender, ethnicity/racial background, mother tongue, and level of education) as well as relationship-related information (e.g., length of relationship, length of cohabitation, and marital status).

Experiences in Close Relationships-12 (ECR-12; Lafontaine et al., 2016). The ECR-12 is a 12-item self-report questionnaire that is intended to measure romantic attachment. It comprises two subscales: attachment anxiety (e.g., “I need a lot of reassurance that I am loved by my partner”) and attachment avoidance (e.g., “I try to avoid getting too close to my partner”). Each subscale includes 6 items that are rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores are indicative of higher levels of attachment anxiety and attachment avoidance, and the mean score of each subscale is used as an index of its respective dimension. Lafontaine et al. (2016) demonstrated convergent and predictive validities

and validated the ECR-12 with English, French-Canadian, same-sex, and clinical couple samples (Lafontaine et al., 2016). With alpha coefficients of .89 for attachment anxiety and .82 for attachment avoidance, the internal consistency of this measure in the present study reflected the results of past studies.

Rosenberg's Self-Esteem Scale (RSE; Rosenberg, 1965). This questionnaire is a 10-item self-report measure of a one-dimensional construct of global self-esteem. Specifically, this measure assesses an individual's global perception of their own self-worth. Each item uses a 4-point Likert scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*) and they are representative of how much an individual considers themselves as a person of worth, as someone who has good qualities, as having a positive self-view, and as not being a failure or useless. Examples of items include "On the whole, I am satisfied with myself" and "I feel that I have a number of good qualities." Lower scores indicate that the participant perceives themselves as having low self-worth and higher scores indicate that the participant has high self-esteem. In the present study, the RSE revealed an alpha coefficient of .52, which is comparatively low in comparison to past studies that reported an alpha coefficient between the range of .72 and .88 (Gray-Little, Williams, & Hancock, 1997). Although this reflects poor reliability, when evaluating detailed results of alpha coefficient statistics, we found that item 9r (i.e., All in all, I am inclined to feel that I am a failure) significantly impacted the scale's reliability. When this item was removed, the alpha coefficient rose to .74, which demonstrates acceptable reliability. As a result, this item was not included in all further analyses conducted in Study 1. Although psychometric studies have largely supported the unidimensionality of the RSE, some studies have revealed a tendency for positively and negatively coded items to form two separate factors. This has largely been attributed to a method effect where the two factors of the RSE seem to be

an artifact of differential responses to positively and negatively worded items (Carmines & Zeller, 1979). Therefore, these reliability issues with item 9r may have arisen from individuals interpreting negatively worded items differently. The final model was tested with and without item 9r in order to verify if this affected results. However, results remained the same and the model fit the data in both cases.

The Outcome Questionnaire- 45.2 (OQ-45.2; Lambert et al., 1996). This questionnaire is a 45-item self-report outcome instrument that measures psychological distress based on three subscales: symptom distress (focused on depressive and anxiety symptoms), interpersonal functioning, and social role. In the present study, a global total score was obtained to assess psychological distress. Each items uses 5-point Likert scale ranging from 0 (*never*) to 4 (*almost always*). Examples of items include “I feel no interest in things” for the symptom distress subscale, “I get along well with others” for the interpersonal functioning subscale, and “I am not working/studying as well as I used to” for the social role subscale. Higher scores suggest higher psychological distress. Concurrent validity of the OQ-45.2 has been established and has been reported to be good (Umphress, Lambert, Smart, Barlow, & Clouse, 1997). In past studies, alpha coefficients for this measure have ranged between .93 and .94 in both university and clinical samples (Boswell, White, Sims, Harrist, & Romans, 2013; Lambert et al., 1996). The Cronbach’s alpha coefficient for this measure in the present study showed excellent reliability with a score of .93.

Results

Preliminary and Descriptive Analyses

Preliminary analyses were first conducted in order to evaluate missing data, outliers, and normality of data. In Study 1, an evaluation of missing data using Little’s Missing Completely at

Random (MCAR) test revealed that the data may be assumed missing completely at random, $\chi^2(3) = 1,884, p = .597$, and that there were no variables with more than 5% missing data. We used the Expectation Maximization (EM) method in order to estimate missing values. The verification of z-scores demonstrated that there were no univariate outliers and a Mahalanobis distance analysis revealed there were no multivariate outliers. Finally, assumptions of normality of data were verified using descriptive statistics (e.g., skewness and kurtosis), boxplots, and histograms. Data were not found to be normally distributed. However, Mplus provides maximum likelihood with robust standard errors (MLR) and a robust test statistic for model evaluation (Muthén & Muthén, 2011), which can be used with severely non-normal distributions, and can be used as an alternative to transformation or truncation methods (Kline, 2016). Compared to the normal theory approach which makes an assumption of the shape of the sampling distribution of the indirect effect, bootstrapping is now the test of choice since it provides a better inferential test (Hayes, 2013). The bootstrap method consists of repeatedly randomly sampling observations with replacement from the data set in order to calculate the desired statistic in each resample (Preacher & Hayes, 2004). We used 5000 bootstrap resamples to provide an approximation of the sampling distribution, which corrects for non-normal distributions of the data when calculating the indirect effects. Additionally, bootstrap confidence intervals better respect the irregularity of the sampling distribution of ab and, consequentially generate inferences that are more likely to be accurate compared to the normal theory approach (Hayes, 2013). Given the number tests conducted in the analyses, possible inflation of Type I error was of concern. Following Hayes and Scharkow's (2013) guidelines, we used percentile bootstrap confidence interval test as the recommended mediation test when concerned with both power and Type 1

errors. Additionally, given concerns for power, considering results in light of effects sizes reduces risks associated with significance tests.

Bivariate Correlations and Mean Differences

Means and standard deviations of measures are presented in Table 1. Significant correlations were found between insecure romantic attachment, self-esteem, and psychological distress in their expected direction. As such, attachment avoidance was found to be significantly correlated with low self-esteem ($r = -.10, p = .02$) as well as high psychological distress ($r = .26, p = .00$). Additionally, attachment anxiety was significantly correlated to both low self-esteem ($r = -.22, p = .00$) and high psychological distress ($r = .42, p = .00$). Finally, low self-esteem was significantly correlated with high psychological distress ($r = -.36, p = .00$). Four one-way ANOVAs were conducted to compare the effects of gender on attachment insecurity (i.e., attachment avoidance and attachment anxiety), self-esteem, and psychological distress. Specifically, there was a significant effect of gender on attachment anxiety at the $p < .05$ level, $F(1, 484) = 17.64, p = .000$, where females were found to be significantly higher in attachment anxiety compared to males.

Mediational Analyses

Structural equation modeling (SEM) with latent variables was conducted in Study 1 in order to assess the mediating role of self-esteem in the relationship between insecure attachment and psychological distress using a SEM by gender. Item parcelling was used as seen in Figure 1. The final model tested in Study 1 provided good fit to the data. A chi-square test showed that the model was not consistent with the data, $\chi^2 = 166.35, p = .000$. However, chi-square is highly sensitive to sample size (i.e., chi-square values will be inflated to appear statistically significant), and thus might erroneously suggest a poor fit (Schumacker & Lomax, 2004). The RMSEA of

.071, 90% CI [0.060, 0.083] was under the cutoff value for an acceptable fit (0.10) and the upper bound of the confidence interval was also under 0.10, which points to acceptable fit. Both the CFI of .962 (> 0.95) and the SRMSR of .062 (< 0.10) indicated good fit. Insecure attachment helped explain 8.4% of the variance in self-esteem ($R^2 = .084$). Insecure attachment and self-esteem helped explain 36.4% of the variance in psychological distress ($R^2 = .364$). The reverse model (i.e., X= attachment insecurity, M= psychological distress, and Y= Self-esteem) was also tested; results and fit were relatively the same. Again, the chi-square test showed that the model was not consistent with the data, $\chi^2 = 166.90$, $p = .000$. The RMSEA was the same with a score of .071, 90% CI [0.060, 0.083] (< 0.10) which points to acceptable fit. Both the CFI of .961 (> 0.95) and the SRMSR of .061 (< 0.10) indicated good fit. However, insecure attachment and psychological distress only helped explain 28.3% of the variance in self-esteem ($R^2 = .283$), compared to 36.4% for the hypothesized model.

As shown in Table 2, the bootstrap method revealed that self-esteem significantly mediated the relationship between attachment avoidance and psychological distress with a small effect size ($\beta = .03$, 95% CI [0.06, 1.06]) as well as attachment anxiety and psychological distress with a small effect size ($\beta = .06$, 95% CI [0.38, 1.30]) while controlling for gender. All direct and indirect effects were significant between variables. Gender did not have a significant effect on the overall model ($\beta = -.04$, $p = .39$).

Study 2: Sample of Couples in Later Adulthood who are Parents

Method

Participants. The sample was comprised of 35 heterosexual couples (70 individuals) in later adulthood who are parents. All participants from Study 2 are completely distinct from Study 1. All participants were required to be at least 18 years of age; however, the minimum age in this

sample was of 25 years of age and the maximum was of 62 years of age ($M = 41.04$, $SD = 6.18$), were in a committed heterosexual relationship on average 15.80 years ($SD = 4.66$), and were required to have at least one child between the ages of 7-9 years. They also had to have a very good knowledge of either English or French in order to participate in the study. All 70 participants required to be cohabiting with their partner. The highest level of education for the majority of the sample was a university degree, with a total of ($n = 35$, 50.00%) participants, while 23 (32.90%) participants had completed graduate studies, 11 (15.70%) participants had completed a college program, and 1 (1.40%) participant had completed elementary school as their highest level of education. The majority of the sample self-identified as a person of European descent ($n = 53$, 75.70%), 4 (5.70%) participants self-identified as South Asian, 4 (5.70%) participants self-identified as Arab, 3 (4.30%) participants self-identified as Black, 3 (4.30%) participants self-identified as Chinese, and 3 (4.3%) participants self-identified as having another racial or ethnic background.

Procedure. This study is part of a larger 3-year longitudinal study on 120 intact biparental families. Participants who participated in the present study only included those who took part at *Time 2*, since the present measures were not included in *Time 1*. Therefore, this study does not include longitudinal data, and thus utilizes a cross-sectional design. Sample diversity was optimized by using multiple recruitment methods in different areas to recruit couples from the community. These methods included advertisements in local newspapers to target the general population, posters carefully situated around campus aimed to target university students, as well as public facilities and community centre (e.g., book stores and child-care centres), and recruitment through radio advertisements. All measures were taken to ensure testing validity by utilizing a structured recruitment script implemented by all experienced research assistants.

Participants were treated in accordance with the national and institutional ethical standards for human experimentation. Participants for the present study included couples asked to take part in the follow-up phase 2 of this study, three to four years following phase 1 of the study.

When booking a couple, research assistants verified that both partners met the inclusion criteria. All participants were informed about the purpose of the study, the content of the questionnaires, confidentiality of their data, their right to withdraw from the study without consequences, and compensation (i.e., \$20 CAD cheque per individual for completing the questionnaires). Research assistants assured that partners understood and agreed to all study procedures. The testing session took place at the participants' home, which lasted about 1 hour and 30 minutes. Before the home session, participants received an information sheet detailing study steps. At the home session, participants were asked to read and sign two copies of the consent form detailing all necessary information. Once completed, all participants received a signed copy of the consent form and a community resource sheet. Following the home session, each parent received a questionnaire package that took approximately 30 minutes to complete. Couples were asked to independently complete a battery of questionnaires either via a Canadian online secure link (Fluid Survey) or a paper version, in which case those participants were required to return the questionnaires to our team by mail. All participants were assigned an identification number, which appeared on their respective questionnaires and consent forms, and used in the database on password protected computers. Online information was downloaded from Fluid Survey and transformed into a .dat file to permit Mplus (Muthén & Muthén, 2011) recognition for further analyses.

Measures. All measures administered in this study were identical to the measures used in Study 1 with the exception of the sociodemographic information questionnaire, which consisted

of a more extended version for the current study. In others words, participants completed the ECR-12 (Lafontaine et al., 2016), the RSE (Rosenberg, 1965), and the OQ-45.2 (Lambert et al., 1996). Also, unlike Study 1, questionnaires were available for completion in either English or French. Alpha coefficients were calculated for each measure. The ECR-12 showed good reliability with an alpha coefficient of .85 for attachment avoidance and an acceptable alpha coefficient of .78 for attachment anxiety. As for the RSE, since item 9r did not negatively impact the overall reliability of the measure, item 9r was kept for these analyses, which resulted in a good alpha coefficient of .87 for the RSE. Finally, the OQ-45.2 revealed an excellent alpha coefficient of .92.

Results

Preliminary and Descriptive Analyses

Preliminary analyses were first conducted in order to evaluate missing data, outliers, and normality of data. In Study 2, an evaluation of missing data using Little's MCAR test revealed that the data may be assumed missing completely at random, $c^2(722) = 717.958, p = .535$, and that there were no variables with more than 5% missing data. We used the EM method in order to estimate missing values. The verification of z-scores demonstrated that there were no univariate outliers and a Mahalanobis distance analysis revealed that there were no multivariate outliers. Bivariate outliers, which can falsely pivot the regression line, were identified with visual inspection of scatterplots and, consequentially, 4 couples were eliminated from the final sample. Finally, assumptions of normality of data were verified using descriptive statistics (e.g., skewness and kurtosis), boxplots, and histograms. Data were not found to be normally distributed. However, Mplus provides maximum likelihood with robust standard errors (MLR) and a robust test statistic for model evaluation (Muthén & Muthén, 2011), which can be used

with severely non-normal distributions, and can be used as an alternative to transformation or truncation methods (Kline, 2016). Additionally, bootstrapped test statistics were used in the final analysis to address this limitation. Descriptive statistics were assessed for all sociodemographic variables.

Bivariate Correlations and Mean Differences

The means, standard deviations, and Pearson correlations are presented in Table 3 for all variables of interest (i.e., attachment avoidance, attachment anxiety, self-esteem, and psychological distress). In Study 2, male attachment avoidance and male attachment anxiety were significantly positively correlated ($r = .36, p = .03$). Although not statistically significant, male avoidance was moderately associated with lower male self-esteem ($r = -.31, p = .06$) and with higher psychological distress in men ($r = .29, p = .11$). Male attachment anxiety was found to be negatively correlated with male self-esteem ($r = -.48, p = .00$) and positively correlated with male psychological distress ($r = .52, p = .00$). Although not statistically significant, male attachment avoidance had a small association with female self-esteem ($r = -.13, p = .46$) and with female psychological distress ($r = .11, p = .56$). Male attachment anxiety had negligible association with female self-esteem ($r = -.01, p = .97$) and a small association with female psychological distress ($r = .11, p = .58$). Although not statistically significant female attachment avoidance was positively associated with female self-esteem ($r = .15, p = .40$) and was negatively correlated with female psychological distress ($r = -.38, p = .04$), as well as positively correlated with male psychological distress ($r = .49, p = .00$). However, female attachment anxiety was negatively correlated with female self-esteem ($r = -.49, p = .00$), and positively correlated with female psychological distress ($r = .47, p = .01$) as well as negligibly associated with male psychological distress ($r = .05, p = .78$). Additionally, although not significant, female attachment

avoidance was moderately associated with male self-esteem ($r = -.24, p = .16$), whereas female attachment anxiety was negligibly associated with male self-esteem ($r = .01, p = .97$). Male self-esteem was negatively correlated with male psychological distress ($r = -.68, p = .00$). Finally, female self-esteem was negatively correlated with female psychological distress ($r = -.63, p = .00$).

Mediational Analyses

In Study 2, structural equation modeling (SEM) was used to test the proposed model in a single analysis (see Figure 2). SEM is a recommended analysis for testing dyadic models with distinguishable dyads, (Kenny & Ledermann, 2010). Therefore, this method was utilized in order to conduct the principal analysis, which was an actor-partner interdependence mediation model (APIMeM; Ledermann et al., 2011). First, we estimated the saturated distinguishable model and tested all direct (see results in Table 4) and indirect (see results in Table 5) actor and partner effects. Many significant *a* direct effects ($X \rightarrow M$) were identified using MLR for model evaluations. In SEM, within a correlational design, standardized path coefficients assessing the direct effect can be used as the effects size index r (Durlak, 2009), which can be more accurate assessment of importance and weight of an effect compared to using significance testing. As such, male attachment avoidance was not significantly associated with male self-esteem and had a small effect size ($\beta = -.14, p = .29$), whereas male attachment anxiety was associated to lower male self-esteem and had a moderate effect size ($\beta = -.42, p = .02$). Female attachment avoidance was associated to higher female self-esteem with a small to moderate effect size ($\beta = .26, p = .01$), whereas female attachment anxiety was associated to lower female self-esteem with a moderate effect size ($\beta = -.54, p = .00$). Moreover, lower male self-esteem was associated with higher male psychological distress with a moderate effects size ($\beta = -.55, p = .00$). Interestingly, higher female

self-esteem was associated with higher male psychological distress with a moderate effect size ($\beta = .30, p = .01$). Lower female self-esteem was associated with higher female psychological distress with a moderate effect size ($\beta = -.36, p = .00$). Male attachment anxiety ($\beta = .23, p = .02$) and female attachment avoidance ($\beta = .30, p = .04$) was associated with higher male psychological distress. Finally, female attachment avoidance was associated with lower female psychological distress with a moderate effect size ($\beta = -.47, p = .00$) and female attachment anxiety was associated with higher female psychological distress with a moderate effect size ($\beta = .42, p = .00$). All other relationships were insignificant and had small effect sizes ($\beta < .20$), with the exception of the association between male attachment anxiety and high female psychological distress ($\beta = .26, p = .15$).

As for the indirect effects (see Table 5), 5 of the 16 mediations were significant. Four indicating partial mediational effects and one indicating full mediation. One male actor-actor simple indirect effect for attachment anxiety was significant. To be specific, low male self-esteem partially explained the relationship between male attachment anxiety and higher male psychological distress with a moderate effect size ($\beta = .23, 95\% \text{ CI } [0.72, 12.37]$). Two female actor-actor simple indirect effects were significant. As such, lower female self-esteem partially explained the relationship between female attachment anxiety and higher female psychological distress with a small to moderate effect size ($\beta = .20, 95\% \text{ CI } [0.35, 4.83]$). Interestingly, high female self-esteem partially explained the relationship between female attachment avoidance and lower female psychological distress with a small effect size ($\beta = -.09, 95\% \text{ CI } [-3.57, -0.04]$). Both male partner-actor simple indirect effects for attachment avoidance and attachment anxiety were significant. Interestingly, higher female self-esteem partially explained the relationship between female attachment avoidance and higher male psychological distress with a small effect

size ($\beta = .08$, 95% CI [0.02, 5.99]). Finally, one full mediation was found, specifically, lower female self-esteem helped explain the relationship between female attachment anxiety and lower male psychological distress with a small effect size ($\beta = -0.16$, 95% CI [-9.21, -0.35]).

Second, k parameters were examined in order to identify underlying dyadic patterns. These parameters were estimated by using phantom variables, which are latent variables with no meaning or disturbance (see Table 6). When testing the model with phantom variables, bootstrap for confidence intervals (CIs) were used to interpret the k parameters. The k s were then fixed to the closest values of the obtained estimates. Six different models were tested to find the closest and best fitting values for dyadic patterns (see Table 7). Results showed that the last model tested was the best fit to the data. A chi-square test showed that the model was consistent with the data, $\chi^2 = 2.633$, $p = .8533$, which showed acceptable fit (Hooper, Coughlan, and Mullen, 2008). The RMSEA of .000, 90% CI [0.000, 0.120] met the cutoff for an acceptable fit (acceptable <0.10 , excellent <0.03). The CFI of 1.00 (>0.95), the SRMSR of 0.043 (acceptable <0.10 , excellent <0.03), and the TLI of 1.168 (>0.96) indicated good fit. Male and female insecure attachment helped explain 28.1% of the variance in male self-esteem ($R^2 = 0.281$) and helped explain 31.6% of the variance in female self-esteem ($R^2 = 0.316$). Male and female insecure attachment and self-esteem helped explain 70.2% of the variance in male psychological distress ($R^2 = 0.702$) and 66.9% of the variance in female psychological distress ($R^2 = 0.669$). In this case, k_1 , the ratio of the $ap1/aa1$, was set to 1, indicating the presence of a couple pattern. This means that male attachment avoidance had just as much of an effect on male self-esteem as female attachment avoidance did. However, given insignificant results that deemed these effects trivial, this pattern must be interpreted with caution. As for the effects of attachment avoidance on female self-esteem, k_2 , the ratio of $ap2/aa2$, was set to 0, which is indicative of an actor-only pattern;

therefore, female attachment avoidance had a significant effect on female self-esteem, but male attachment avoidance did not. As for the effects of attachment anxiety on male self-esteem, k_3 , the ratio of ap_3/aa_3 , was set to 0, indicating an actor-only pattern. Therefore, male attachment anxiety was associated to male self-esteem, whereas female attachment anxiety had no association to male self-esteem. As for the effects of attachment anxiety on female self-esteem, k_4 , the ratio of ap_4/aa_4 , and was finally set to 0, which points, again, to an actor-only pattern. In other words, this result informs us that female attachment anxiety was associated to female self-esteem, whereas male attachment anxiety had no association to female self-esteem. As for the effects of self-esteem on male psychological distress, k_5 , the ratio of bp_1/ba_1 , was finally set to -0.5, indicating the presence of a contrast pattern. Specifically, the actor effect of male self-esteem on his own psychological distress is almost *one and a half times* as large as female self-esteem on male psychological distress, however in the opposite direction. Finally, the ratio of bp_2/ba_2 was calculated and k_6 was finally set to -0.5, which is indicative of a contrast pattern. Specifically, the actor effect of female self-esteem on her own psychological distress is almost *one and a half times* as large as male self-esteem on female psychological distress, in the opposite direction. However, in this instance only the female actor effect was significant whereas the partner effect was trivial, therefore this pattern must be interpreted with caution. The reverse model (i.e., X= insecure attachment, M= psychological distress, Y= self-esteem) was tested and four indirect effects were significant. However, as for model fit, fit indices were poor. A chi-square test showed that the model was consistent with the data, $\chi^2 = 10.54$, $p = 0.1037$, which showed acceptable fit (Hooper, Coughlan, and Mullen, 2008). However, The RMSEA of .147, 90% CI [0.000-0.290] did not meet the cutoff for an acceptable fit (acceptable <0.10, excellent <0.03). The CFI of 0.938 was lower than the threshold (>0.95), the SRMSR of 0.078 showed

acceptable fit (acceptable <0.10 , excellent <0.03), and the TLI of 0.773 (>0.96) indicated poor fit. Therefore, the data had an overall better fit with the initial model.

General Discussion

The overarching objective of the present studies was to assess the mediating effects of self-esteem in the relationship between insecure romantic attachment and psychological distress in a sample of young adult students in a romantic relationship and in a second sample of couples in later adulthood who are parents. All proposed hypotheses within our young adult student sample were confirmed, whereas interesting differences pertaining to gender and self-esteem were found within our sample of couples in later adulthood who are parents. In general, we found that low self-esteem served as a mediator between insecure romantic attachment and high psychological distress.

Mediation Results

In Study 1, all hypotheses regarding relationships between romantic attachment, self-esteem, and psychological distress were confirmed. Specifically, partial mediations were found to be significant with small effect sizes in our sample of young adult students, suggesting that low self-esteem partially explained the relationship between high in attachment insecurity in young adults and higher psychological distress. This result is consistent with theoretical and empirical data (Karakurt, 2012; Robert et al., 1996). Their reported low self-esteem, grounded in romantic attachment insecurity, seems to play an important role in the development of higher psychological distress in this age group. Recent evidence has shown that there exists an extremely high prevalence of mental health problems and high levels of psychological distress in university students, making them an identifiable at-risk population (Nerdrum et al., 2006; Stallman, 2010). A systematic review on the subject conducted by Storrie, Ahern, and Tuckett

(2010) found that the number of young adults in college and university diagnosed with serious mental illnesses has increased significantly over the last few years. They identified many unique causes of heightened distress in this population that equally affected both men and women, including academic pressures (i.e., grades and success), decreased emotional and behavioural skills, social isolation, interpersonal conflict, and financial difficulties (Storrie et al., 2010). The weight of these stressors in addition to lower rates of self-esteem in this population seems to place young adults at a higher risk of developing acute psychological distress.

In Study 2, results showed certain unexpected findings for men and women. Specifically, within our sample of couples in later adulthood who are parents, five indirect effects were found to be significant, four indicating partial mediational effects and one full mediation. As for the identified significant results, one male actor-actor indirect effect was found, where men high in attachment anxiety were more likely to have lower self-esteem and, in turn, were more likely to experience high psychological distress. This same result was found in women, where women high in attachment anxiety were more likely to have lower self-esteem and, in turn, they were more likely to experience high psychological distress. These results corroborated the results found in Study 1 (i.e., young adult men and women participants) and were also consistent with the outlined hypotheses. Given that attachment anxiety has repeatedly been shown to have a stronger association with one's own low self-esteem (Brennan & Bosson, 1998; Brennan & Morris, 1997; Foster et al., 2007; Mikulincer, 1995) as well as with one's own high psychological distress (Mikulincer & Shaver, 2007) compared to attachment avoidance, we can understand how attachment avoidance did not share this same association in the direction of the initial hypotheses.

A second significant actor-actor simple indirect effect for women was also found to be significant. However, this result, in part, contradicted our hypotheses. Specifically, women high in attachment avoidance were more likely to have higher self-esteem, and, in turn, were more likely to have lower psychological distress. This result may in part be due to the way self-esteem was measured, using a trait measure of global self-esteem. Early research has shown a positive link between general adult attachment avoidance and higher global self-esteem (Bartholomew & Horowitz, 1991; Brennan & Bosson, 1998); however, researchers have found that individuals high in attachment security are more likely to draw their self-esteem from an internal view of self stemming from the positive regard from other rather than from specific personal competence, which is the case for individuals high in attachment avoidance (Cassidy & Shaver, 2016). If this is the case than it can be understood how global self-esteem would be associated to reduced psychological distress. Interestingly, this indirect effect was not found to be significant for men in later adulthood and was found to be in the opposite direction within the young adult sample for both men and women. The nature of our samples may help explain this developmental and gender difference. As such, the sample in Study 2 comprised of couples in later adulthood, who are all parents, are at a different life stage than the sample of young adults in Study 1. In later adulthood, couples may experience greater life stability (i.e., financial, occupational) and, specifically within our sample, adopt a parental role. Therefore, at this later stage, developmental changes occur where adults have reached an individuation process, have greater stability, and increased levels of independence (Arnette, 2000; Erikson, 1968). This greater independence and parental role may contribute to a higher sense of competency within individuals high in attachment avoidance, which may in turn increase self-esteem at this point in life, positively linking attachment avoidance with higher levels of self-esteem. However, this relationship does

not hold true for men high in attachment avoidance in the current sample. This may be explained by gendered social norms, where women may derive their self-esteem from their sense of independence in their parental role. Specifically, women may feel high self-esteem and fulfilment in not having to rely on their romantic partner for support for parental caregiving responsibilities. As for men high in attachment avoidance, they may derive their self-esteem from other sources such as occupational success, income, and power.

Finally, two actor-partner simple indirect effects for men were significant that opposed our initial hypotheses. Specifically, women high in attachment avoidance were more likely to have higher self-esteem, and, in turn, were more likely to have partners with higher psychological distress. Similarly, women high in attachment anxiety were more likely to have lower self-esteem, and, in turn, were more likely to have partners with lower psychological distress. Therefore, men actually felt more psychological distress when their partners reported higher self-esteem and, likewise, felt less psychological distress when their partners reported lower self-esteem. Although little dyadic findings exist on the topic, this result could be understood within an attachment and gender theory framework. More specifically, romantic partners of individuals high in attachment avoidance utilizing deactivating strategies (e.g., physical and emotional distancing) and reporting high level of self-esteem may interpret their romantic partner's behaviours and actions as an indication that they are maybe less needed or desired. Thus it would not be difficult to acknowledge the potential negative impact that these interpretations may have on their partner's level of psychological distress. Correspondingly, romantic partner's of individuals high in attachment anxiety utilizing hyperactivating strategies (e.g., eliciting partner's support through clinging and controlling responses) and reporting low levels of self-esteem may feel needed and important to their partner, and thus this could

potentially respond to attachment needs that reduce partner psychological distress. This seems to have a unique effect on men's level of psychological distress. This gender difference may be attributable to the fact that men generally exhibit higher attachment avoidance and women generally exhibit higher attachment anxiety, and this trend appears more apparent among community samples in comparison with college samples (Del Giudice, 2011). Therefore, high attachment avoidance and deactivating strategies, which are gender discordant attachment strategies for women, might be perceived as more threatening to their partner and have a stronger impact on the men's psychological distress. These results are in line with Simpson's (1990) correlational within-dyad results, which found that women high in attachment avoidance were involved with men who experienced negative emotions more frequently and intense positive emotions less frequently. Simpson attributes this to the woman's use of deactivating strategies, which includes distancing behaviours and low dependence on the other. Additionally, gender stereotypes may in part help explain these results. In particular, researchers have found that men are largely associated with competitiveness, success, and autonomy, whereas women are associated with the stereotype of being less competent or less successful and when they do reach achievements these may be minimized (Eagly & Karau, 2002). A study conducted by Ratliff and Oishi (2013) found that men's implicit self-esteem was lower when their partner succeeded than when their partner failed, whereas, women's implicit self-esteem was not affected by their partner's success. This study supports the gender stereotype that men may feel threatened by the success and self-esteem of their female partner, and consequently experience more psychological distress.

Limitations

While the presented studies have contributed to a largely untapped area of research, there are a number of limitations that are important to note. First, although these studies allow us to assess the results of two distinct age groups, it is important to highlight that these results cannot be directly compared to one another since different research designs and methodological steps were utilized. Furthermore, participants from differing samples could not be paired to each other; thus, limiting the comparability of results (i.e., gender and ethnicity). Therefore, while weighing and contrasting results from both studies should be done with caution, findings derived from these analyses can be used as a stepping stone to future studies that could utilize a longitudinal research design to assess differences throughout time. However, these results add to this area of research by studying two distinct populations facing unique life stressors, such as academic pressures, parenthood, and differences in relationship duration and maturity. That being said, participants from Study 1 were mostly women and participants from both samples were predominantly individuals of European descent, which limits the ability to generalize the findings to a general population (e.g., adults of low socio-economic status and of other racial or ethnic backgrounds). In addition, for both our sample of students in young adulthood and our sample of couples in later adulthood who are parents, the results of structural equation modeling were based on correlation data, which disallows the possibility of drawing any conclusions about causal relationships and directionality among all variables. Moreover, since both studies relied on self-report measures, this could possibly lead to response bias or mood effects, which could be addressed with multi-method research designs in future studies. Although APIMeM was utilized to obtain dyadic results, these analyses limited our statistical power and may have increased the probability of Type II error. Finally, since our sample of couples in later adulthood who are parents, was part of a larger study on families, there is a presence of multiple

recruitment limitations. For example, only families with a child between the ages of 7 and 9 years and families that were willing to take part in a home study (i.e., researchers were invited to the participant's home) were eligible to participate in the study. These recruitment criteria significantly limited our sample size; however, offered great benefits such as a sample that is more diverse than a convenience sample. Additionally, given the differences in sample populations within a same community, others distinguishing factors could have been confounding variables within the models such as parenthood.

Conclusion

Growing empirical evidence points to the importance of studying a number of factors to better understand the development of psychological distress. For instance, gender and age differences remain largely unexplained (Drapeau et al., 2011) and even less is known when combining these distinctive variables. In the present studies, we examined self-esteem as a mediating variable in the relationship between insecure romantic attachment and psychological distress within a sample of students in young adulthood (i.e., Study 1) and a sample of couples in later adulthood who are parents (i.e., Study 2). The current studies offer a unique snapshot of similar mediational models within two distinct populations, which can help begin to tease apart unique phenomena that transpire between two-time periods within a lifespan. Additionally, the use of a dyadic perspective within our second sample allows us to better understand the experience of psychological distress within the context of specific underlying couple patterns. On the one hand, the presented findings help identify young populations who seem to be at a higher risk of suffering negative consequences as a result of attachment insecurity, specifically placing them at a greater risk of having lower self-esteem and, in turn, increased psychological distress. This could help clinicians become more aware of the effects of romantic attachment in

young adulthood and specifically target attachment representations within individual or couple therapy. On the other hand, the current findings underscore important dyadic patterns for samples of couples in later adulthood who are parents, and could help clinicians become more conscious of the unique effects of attachment insecurity has on psychological distress in men and women. All together, these results show that Emotionally Focused Therapy (EFT; Johnson, 2004) for couples could be used in order to make dyadic effects more explicit when delineating pursuit and avoidance behaviours within the couple dynamic. EFT is a well-validated approach for treating couples and is grounded in attachment theory. Negative interactional cycles, over time, diminish security within the relationship and can trigger underlying negative internal beliefs about the self. Impacts on partners' reported self-esteem and psychological distress could be reframed within the couple cycle in order to access underlying unmet attachment needs of feeling wanted and loved by the other partner. Building attachment security within couple therapy can help shift attachment systems and core working models by facilitating a positive corrective experience between partners. In sum, our results may serve to guide and direct clinical interventions within differing populations in the ultimate goal of reducing reported psychological distress.

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Table 1

Descriptive Statistics and Correlations for Insecure Attachment, Self-esteem, and Psychological Distress Within a Sample of Young Adult Students (Study 1)

	1	2	3	4
1. Attachment Avoidance	-			
p-value	-			
2. Attachment Anxiety	.034	-		
p-value	.460			
3. Self-Esteem	-.103	-.219	-	
p-value	.023	.000		
4. Psychological Distress	.261	.417	-.360	-
p-value	.000	.000	.000	-
<i>M</i>	2.33	3.79	2.80	57.87
<i>SD</i>	1.13	1.58	.44	21.59

Note. $N = 485$.

Table 2

Standardized Direct and Indirect Effects of Insecure Romantic Attachment on Psychological Distress Through Self-Esteem Within a Sample of Young Adult Students (Study 1)

Effect	Estimate	<i>p</i>	<i>SE</i>	95 % CI	
				LL	UL
Direct effect of Attachment Avoidance on Self-Esteem	-0.10	.043	0.04	-0.068	-0.004
Direct effect of Attachment Anxiety on Self-Esteem	-0.22	.000	0.05	-0.090	-0.033
Direct effect of Attachment Avoidance on Psychological Distress	0.22	.000	0.04	2.686	5.692
Direct effect of Attachment Anxiety on Psychological Distress	0.36	.000	0.05	3.563	6.138
Direct effect of Self-Esteem on Psychological Distress	-0.26	.000	0.05	-18.216	-7.911
Direct effect of Gender on Psychological Distress	-0.04	.399	0.05	-8.368	2.816
Indirect effect of Self-Esteem on the relationship between Attachment Avoidance and Psychological Distress	0.03	.098	0.01	0.063	1.056
Indirect effect of Self-Esteem on the relationship between Attachment Anxiety and Psychological Distress	0.06	.001	0.02	0.375	1.301

Note. *N* = 485. *SE* = standard error; LLCI = lower limit confidence interval; ULCI = upper limit confidence interval.

Table 3

Descriptive Statistics and Correlations for the Variables Within a Sample of Couples in Later Adulthood Who are Parents (Study 2)

	1	2	3	4	5	6	7	8
1. Male Attachment Avoidance	-							
p-value	-							
2. Male Attachment Anxiety	.36	-						
p-value	.035	-						
3. Male Self-Esteem	-.31	-.48	-					
p-value	.066	.003	-					
4. Male Psychological Distress	.29	.52	-.68	-				
p-value	.115	.003	.000	-				
5. Female Attachment Avoidance	.18	.16	-.24	.49	-			
p-value	.296	.351	.160	.006	-			
6. Female Attachment Anxiety	.02	-.18	.01	.05	.14	-		
p-value	.915	.295	.975	.789	.423	-		
7. Female Self-Esteem	-.13	-.01	.20	.13	.15	-.49	-	
p-value	.463	.975	.244	.494	.407	.003	-	
8. Female Psychological Distress	.11	.11	.05	-.21	-.38	.47	-.63	-
p-value	.567	.587	.787	.311	.041	.010	.000	-
<i>M</i>	2.67	2.45	2.94	48.90	1.97	2.54	3.12	43.28
<i>SD</i>	1.09	0.93	.53	21.03	0.91	1.03	.41	9.21

Note. $N = 70$.

Table 4

Unstandardized (MLR), Standardized Factor Loadings, and Unstandardized Structural Coefficients (MLR) for Model Parameters Within a Sample of Couples in Later Adulthood Who are Parents (Study 2)

Effect	Unstandardized	Standardized	<i>p</i>
<i>a</i> effects ($X \rightarrow M$)			
Male actor effect			
Male avoidance \rightarrow Male self-esteem (a_{A1})	-0.07	-0.14	.29
Male anxiety \rightarrow Male self-esteem (a_{A3})	-0.24	-0.42	.02
Female actor effect			
Female avoidance \rightarrow Female self-esteem (a_{A2})	0.12	0.26	.01
Female anxiety \rightarrow Female self-esteem (a_{A4})	-0.22	-0.54	.00
Male partner effect			
Female avoidance \rightarrow Male self-esteem (a_{P1})	-0.08	-0.14	.31
Female anxiety \rightarrow Male self-esteem (a_{P3})	-0.03	-0.05	.74
Female partner effect			
Male avoidance \rightarrow Female self-esteem (a_{P2})	-0.05	-0.13	.31
Male anxiety \rightarrow Female self-esteem (a_{P4})	-0.04	-0.10	.60
<i>b</i> effects ($M \rightarrow Y$)			
Male actor effect			
Male self-esteem \rightarrow Male psychological distress (b_{A1})	-21.86	-0.55	.00
Female actor effect			
Female self-esteem \rightarrow Female psychological distress (b_{A2})	-8.27	-0.36	.00

Male partner effect			
Female self-esteem → Male psychological distress (b_{P1})	15.61	0.30	.01
Female partner effect			
Male self-esteem → Female psychological distress (b_{P2})	3.34	0.19	.14
c' effects ($X \rightarrow Y$)			
Male actor effect			
Male avoidance → Male psychological distress (c'_{A1})	0.43	0.02	.84
Male anxiety → Male psychological distress (c'_{A3})	5.16	0.23	.02
Female actor effect			
Female avoidance → Female psychological distress (c'_{A2})	-4.84	-0.47	.00
Female anxiety → Female psychological distress (c'_{A4})	3.81	0.42	.00
Male partner effect			
Female avoidance → Male psychological distress (c'_{P1})	7.06	0.30	.04
Female anxiety → Male psychological distress (c'_{P3})	3.06	0.15	.23
Female partner effect			
Male avoidance → Female psychological distress (c'_{P2})	0.54	0.06	.57
Male anxiety → Female psychological distress (c'_{P4})	2.64	0.26	.15

Note. $N = 70$. X = insecure attachment; M = dyadic trust; Y = relationship satisfaction.

Table 5

Unstandardized Estimates, Bootstrap Confidence Intervals, and Proportion of the Total Effects Within a Sample of Couples in Later Adulthood Who are Parents (Study 2)

Effect	Estimate	95% CI	Proportion of the total effect (multiplied by 100)
Effects from Male avoidance → Male psychological distress			
Total effect	1.13	[-6.01, 7.56]	
Total IE	0.70	[-2.75, 4.55]	61.95
Male avoidance, Male self-esteem, Male psychological distress IE	1.46	[-1.41, 5.14]	129.20
Male avoidance, Female self-esteem, Male psychological distress IE	-0.77	[-3.40, 0.58]	68.14
Direct effect	0.43	[-5.87, 4.84]	38.05
Effects from Male anxiety → Male psychological distress			
Total effect	9.71	[2.36, 19.22]	
Total IE	4.55	[-0.79, 12.37]	46.86
Male anxiety, Male self-esteem, Male psychological distress IE	5.24	[0.72, 12.93]	53.97
Male anxiety, Female self-esteem, Male psychological distress IE	-0.69	[-4.91, 1.74]	7.11
Direct effect	5.16	[0.03, 12.95]	53.14
Effects from Female avoidance → Female psychological distress			
Total effect	-6.09	[-9.55, -3.48]	

Total IE	-1.25	[-4.10, 0.12]	20.53
Female avoidance, Male self-esteem, Female psychological distress IE	-0.28	[-2.14, 0.26]	4.60
Female avoidance, Female self-esteem, Female psychological distress IE	-0.97	[-3.57, -0.04]	15.93
Direct effect	-4.84	[-8.64, -2.15]	79.47
Effects from Female anxiety → Female psychological distress			
Total effect	5.51	[3.27, 7.84]	
Total IE	1.70	[0.18, 4.66]	30.85
Female anxiety, Male self-esteem, Female psychological distress IE	-0.08	[-1.51, 0.37]	1.45
Female anxiety, Female self-esteem, Female psychological distress IE	1.78	[0.35, 4.83]	32.31
Direct effect	3.81	[0.84, 7.32]	69.15
Effects from Male avoidance → Female psychological distress			
Total effect	0.72	[-1.90, 2.60]	
Total IE	0.18	[-1.02, 1.78]	25.00
Male avoidance, Male self-esteem, Female psychological distress IE	-0.22	[-1.40, 0.17]	30.56
Male avoidance, Female self-esteem, Female psychological distress IE	0.41	[-0.36, 2.36]	56.94
Direct effect	0.54	[-2.49, 2.58]	75.00
Effects from Male anxiety → Female psychological distress			
Total effect	2.21	[-1.64, 6.06]	
Total IE	-0.44	[-3.03, 1.57]	19.91
Male anxiety, Male self-esteem, Female psychological distress IE	-0.80	[-3.44, 0.25]	36.20

Male anxiety, Female self-esteem, Female psychological distress IE	0.37	[-1.27, 2.03]	16.74
	2.64	[-2.60, 6.57]	119.46
Direct effect			
Effects from Female avoidance → Male psychological distress			
Total effect	10.73	[0.58, 18.09]	
Total IE	3.67	[-0.93, 10.09]	34.20
Female avoidance, Male self-esteem, Male psychological distress IE	1.84	[-2.65, 6.93]	17.15
Female avoidance, Female self-esteem, Male psychological distress IE	1.84	[0.02, 5.99]	17.15
Direct effect	7.06	[-3.32, 14.43]	65.80
Effects from Female anxiety → Male psychological distress			
Total effect	0.25	[-7.00, 6.49]	
Total IE	-2.81	[-8.51, 1.65]	1124.00
Female anxiety, Male self-esteem, Male psychological distress IE	0.55	[-2.74, 5.23]	220.00
Female anxiety, Female self-esteem, Male psychological distress IE	-3.36	[-9.21, -0.35]	1344.00
Direct effect	3.06	[-3.44, 10.21]	1224.00

Note. $N = 70$. IE = indirect effect; CI = confidence interval.

Table 6

Unstandardized K Parameter Estimates, Bootstrap Confidence Intervals, and Dyadic Patterns Within a Sample of Couples in Later Adulthood Who are Parents (Study 2)

<i>k</i> Parameters	Actor effects	<i>P</i>	Partner effects	<i>P</i>	Estimate and bootstrap [95% CI]	Possible dyadic patterns
<i>k</i> ₁	aa1 = -0.07	.29	ap1 = -0.08	.31	<i>k</i> ₁ = 1.26 [CI; -0.671, 25.992]	0.5, 1, 2
<i>k</i> ₂	aa2 = 0.12	.01	ap2 = -0.05	.31	<i>k</i> ₂ = -0.42 [CI; -2.928, 0.649]	0, 0.5
<i>k</i> ₃	aa3 = -0.24	.02	ap3 = -0.03	.74	<i>k</i> ₃ = 0.10 [CI; -2.093, 0.919]	0, 0.5
<i>k</i> ₄	aa4 = -0.22	.00	ap4 = -0.04	.60	<i>k</i> ₄ = 0.21 [CI; -1.008, 1.128]	0, 0.5
<i>k</i> ₅	ba1 = -21.86	.00	bp1 = 15.61	.01	<i>k</i> ₅ = -0.71 [CI; -1.595, 0.098]	-1, -0.5, 0
<i>k</i> ₆	ba2 = -8.27	.00	bp2 = 3.34	.14	<i>k</i> ₆ = -0.404 [CI; -2.928, 0.110]	0, -0.5

Note. *N* = 70. CI = confidence interval.

Table 7

Model Fit Indices Within a Sample of Couples in Later Adulthood Who are Parents (Study 2)

Models	<i>df</i>	χ^2	SRMR	RMSEA	TLI	CFI
Basic saturated APIM	0	0.000	0.000	0.000	1.000	1.000
Saturated APIM with <i>k</i>	0	0.000	0.000	0.000	1.000	1.000
$k_1@0.5; k_2@0.5; k_3@0.5; k_4@0.5; k_5@-1; k_6@1$	6	12.566	0.081	0.177	0.672	0.91
$k_1@0.5; k_2@0.5; k_3@0.5; k_4@0; k_5@-0.5; k_6@0$	6	7.710	0.073	0.090	0.914	0.977
$k_1@0.5; k_2@0.5; k_3@0; k_4@0; k_5@-0.5; k_6@0$	6	6.725	0.059	0.059	0.964	0.990
$k_1@0.5; k_2@0; k_3@0; k_4@0; k_5@-0.5; k_6@0$	6	4.807	0.050	0.000	1.060	1.00
$k_1@1; k_2@0; k_3@0; k_4@0; k_5@-1; k_6@0$	6	4.860	0.053	0.000	1.057	1.00
$k_1@1; k_2@0; k_3@0; k_4@0; k_5@-0.5; k_6@-0.5$	6	2.633	0.043	0.000	1.168	1.00

Note. $N = 70$. APIM = actor-partner interdependence model; *df* = degrees of freedom; χ^2 = chi-square; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index; CFI = comparative fit index.

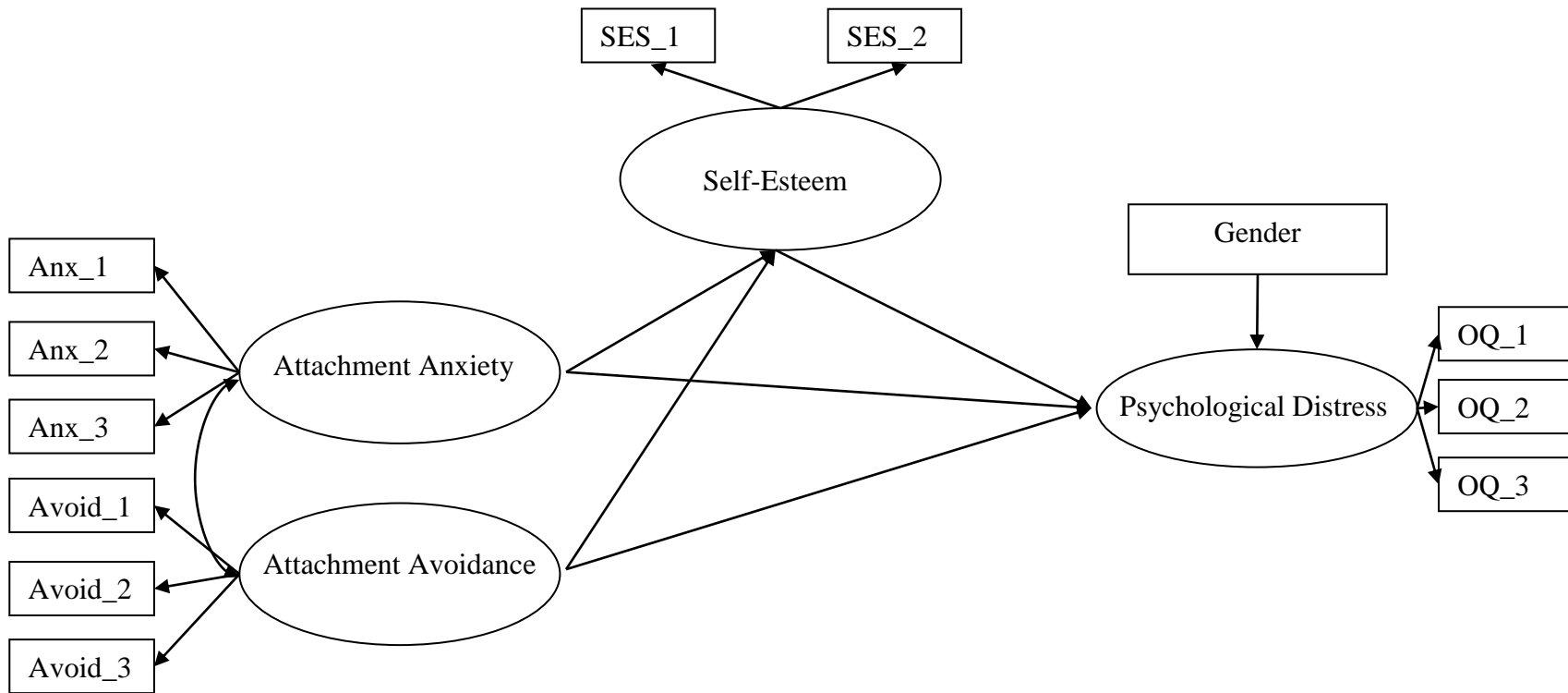


Figure 1. Hypothesized mediation model relating attachment, self-esteem, and psychological distress while controlling for gender within a sample of young adults (Study 1).

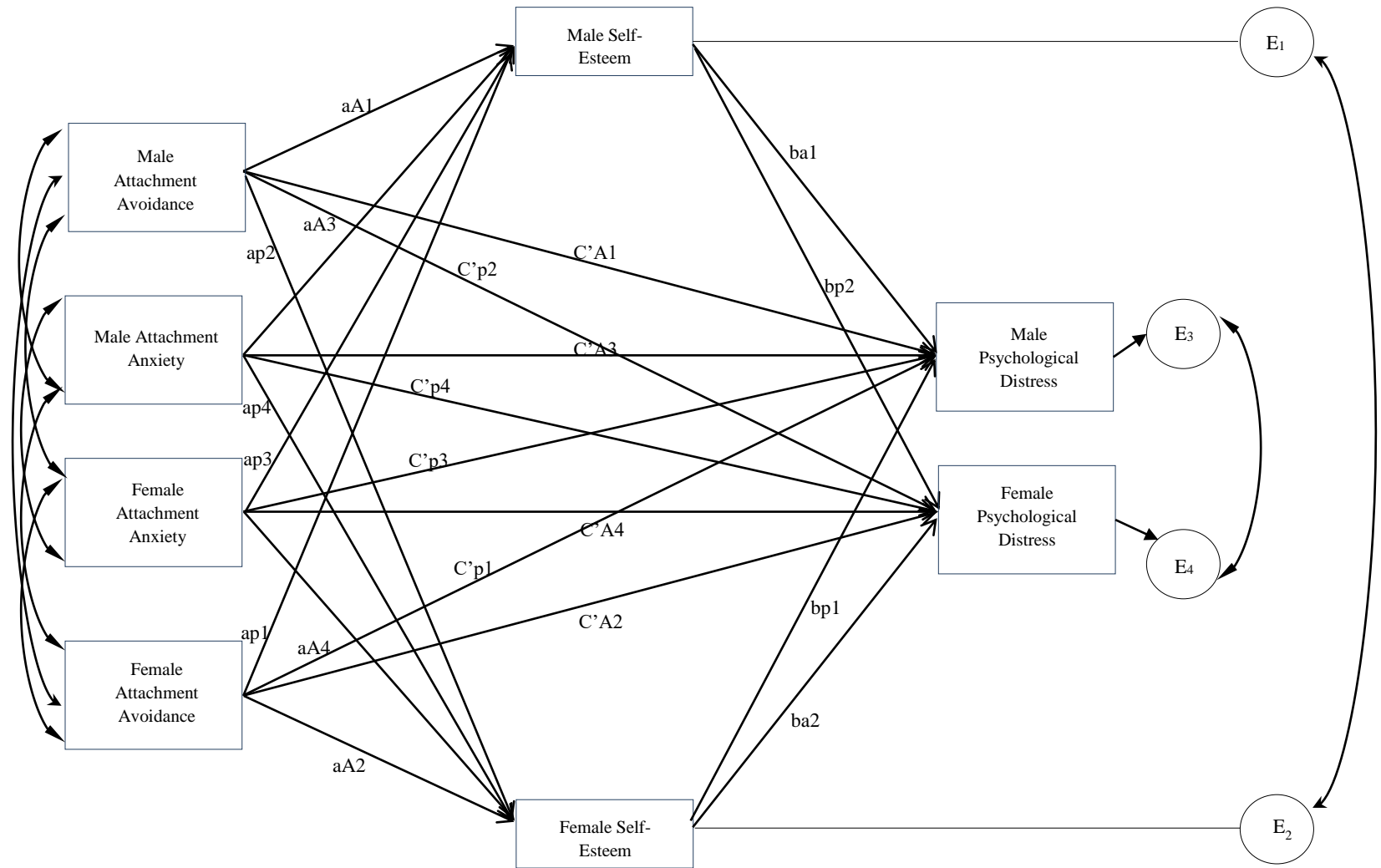


Figure 2. Hypothesized actor-partner interdependence mediation model relating romantic attachment, self-esteem, and psychological distress within a sample of couples in late adulthood who are parents (Study 2).

Chapter III

Attachment, Trust, and Satisfaction in Relationships: Investigating Actor, Partner, and Mediating Effects

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Abstract

Romantic relationship dissatisfaction has been cited as a primary reason for seeking mental health services (Foran, Whisman, & Beach, 2015). An increasing number of studies have revealed the importance of romantic attachment in understanding relationship satisfaction (Mikulincer & Shaver, 2016). This study aims to assess dyadic trust as a possible mediator of the relationship between insecure romantic attachment and relationship satisfaction within a Canadian community sample of 199 heterosexual couples ranging from young to later adulthood. Results revealed significant actor and partner effects. Specifically, male and female attachment avoidance, as well as male attachment anxiety, predicted lower dyadic trust, which, in turn, predicted lower relationship satisfaction. These results add to the current literature, suggesting important gender differences in the effects attachment has on overall relationship satisfaction.

Keywords: attachment, trust, marital satisfaction, dyadic data analysis

Attachment, Trust, and Satisfaction in Relationships: Investigating Actor, Partner, and Mediating Effects

Individuals' relationship satisfaction is one of the foremost-established areas of relationship assessment, and has been tested with multiple measures examining feelings, thoughts, and behaviors within the marital relationship (Adams & Jones, 1999). Spanier (1976) defines relationship satisfaction as the degree to which respondents feel satisfied with their partner. Although individual variables such as greater physical health and greater psychological well-being are linked to relationship satisfaction (Baumeister & Leary, 1995; Robles, Slatcher, Trombello, & McGinn, 2014), recent evidence suggests that relationship functioning variables are the most important predictors of relationship satisfaction (Byers, 2005; Caron, Lafontaine, Bureau, Levesque, & Johnson, 2012; Owen, Rhoades, & Stanley, 2013). The current study aims to better understand these relational predictors by assessing the actor, partner, and mediating effects of dyadic trust in the relationship between romantic attachment and relationship satisfaction in a sample of heterosexual couples ranging from young to later adulthood.

Attachment, Trust, and Relationship Satisfaction

Bowlby's attachment theory (1969/1982) has been one of the leading frameworks of existing conceptualizations of parent-child relationship functioning, and has been extrapolated to adult romantic attachment throughout the years. He suggested that in childhood, attachment is an innate behavioral system designed to encourage proximity between an infant and their primary caregivers when confronted with dangerous or threatening situations. If attachment figures are consistently accessible and responsive during times of need, the child will feel a sense of safety and security, which will, in time, promote the adoption of secure patterns of attachment. Secure children are thought to have working models of themselves as worthy and lovable, and of others

as responsive in times of need (Ainsworth, Blehar, Waters, & Wall, 1978). As a result, these children are more likely to approach new experiences with curiosity, confidence, and trust (Bowlby, 1988). However, if caregivers are inaccessible, negligent, and/or inconsistent in their support, the child will not learn the necessary skills to successfully regulate distressing emotions, which will, in turn, promote the adoption of insecure patterns of attachment (Cassidy & Shaver, 2008). These lived experiences with attachment figures help form internal working models of attachment, which serve as cognitive filters of others and of the self that allow the regulation and processing of attachment-related behaviors (Collins & Read, 1990). Bowlby (1982) explained that working models "evolve out of experiences with attachment figures and guide the regulation and fulfillment of attachment needs" (p. 39). Akin to attachment, working models are not fixed or unvarying, as working models established in childhood are not necessarily those adopted in adulthood depending on life experience and diverging relationships (Hepper & Carnelley, 2012). Internal working models are considered to help guide all subsequent relationships in different and unique ways by influencing how individuals see themselves and others (Caron et al., 2012).

In adulthood, primary attachment bonds can shift to multiple figures (e.g., parents, friends, and romantic partners) rather than being solely dependent on the primary caregivers present in childhood. Some theorists conceptualize attachment in terms of one general overarching style of relating to and bonding with the significant others in our lives. This global approach, which is referred to as general adult attachment, is viewed as holding general cognitive structures that encode and map a person's past experiences in relationships and are relevant in many areas including relating with others, psychological health, and emotion regulation (Cassidy & Shaver, 2016). In addition to the global conceptualization of attachment, some theorists contend that we also develop attachment orientations and internal working models that are

unique to each specific relationship (Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996; Fraley, Heffernan, Vicary, & Brumbaugh, 2011). This model contends that there are specific relationship models for different domains including family, friends, and romantic partners (Overall, Fletcher, & Friesen, 2003). For example, the attachment bond between a parent and child may differ from the attachment bond shared with a romantic partner. Increasingly, research is pointing to a hierarchical organization of attachment, where individuals have somewhat global attachment representations of relationships, with specific representations nested within the more general model (Cassidy & Shaver, 2016). Although the specific organization of working models is not fully understood, much research points to the fact that people hold multiple attachment working models that can be independent and all the while interrelated in various ways (Gillath, Karantzas, & Fraley, 2016).

Theorists and researchers began to specifically focus on the study of adult romantic attachment, as it was proposed that individuals' most significant relationships evolve in terms of importance from childhood to young adulthood. At this stage in life, individuals within a romantic dyad are proposed to become a significant attachment figure to their respective partner, given the importance of close relationships during this period (Hazan & Shaver, 1987). Since adults do not enter relationships without previous influences, they bring with them a whole history of social experiences, memories, expectations, goals, and action tendencies that help guide their future interactions with others and their respective romantic partner (Collins, Guichard, Ford, & Feeney, 2004; Hazan, Campa, & Gur-Yaish, 2006). Attachment theory suggests that interactions with previous attachment figures can still have an influence on the individual in adulthood; however, it remains that internal working models can change through the experience of significant events and through new relationships (Collins et al., 2004).

One of the most agreed upon conceptualizations of adult romantic attachment uses two dimensions to define individual differences in attachment (Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000). Although specific to a type of relationship, this conceptualization includes a global representation in romantic relationships without pertaining to a specific partner. Albeit the use of a two dimensional measure of attachment, three major attachment orientations are assessed. The first is termed *attachment anxiety* and is characterized by worries and incessant rumination about the relationship, specifically about the fear of being rejected and abandoned by one's partner (Bartholomew & Horowitz, 1991; Brennan et al., 1998). Individuals high in attachment anxiety have primarily negative self-views and guarded yet hopeful views of others, which could lead them to doubt their own worth in their relationships, develop feelings of resentment towards past attachment figures, worry about future potential losses, and remain vigilant to perceived threats (Cassidy & Berlin, 1994). The use of energetic and insistent efforts to attain proximity are secondary strategies of affect regulation known as *hyperactivating strategies* (Cassidy & Kobak, 1988), which involve attempts to elicit care from their partner by using clinging or controlling responses (Mikulincer, Shaver, & Pereg, 2003). Such strategies used by individuals high in attachment anxiety are also characterized by the rapid detection of relational threats, an exaggerated deduction of negative consequences, and an intensification of emotional responses given their active rumination about these threat-related issues (Mikulincer et al., 2003). Although one of the primary goals of individuals high in attachment anxiety is achieving greater felt security with their partner (Mikulincer, 1998), the use of these secondary strategies may only be effective in the short-term, as such strategies may inevitably be associated with difficulties in the relationship such as conflict, distance, psychopathology, and lower relationship satisfaction (Brassard, Lussier, & Shaver, 2009;

Mikulincer & Shaver, 2012; Mikulincer, Shaver, Bar-On, & Ein-Dor, 2010; Sadikaj, Moskowitz, & Zuroff, 2015). The second is termed *attachment avoidance* and is characterized by emotional distancing from others and avoidance of intimacy in relationships (Bartholomew & Horowitz, 1991). Adults high in attachment avoidance hold variant self-views and predominantly negative views of others (Simpson, 1990). The appraisal of proximity seeking as an ineffective attachment strategy can lead to the use of secondary strategies of emotion regulation known as *deactivating strategies* (Cassidy & Kobak, 1988). These strategies are characterized by the denial of attachment needs and avoidance of dependence in close relationships (Mikulincer et al., 2003). These strategies are also characterized by active inattention to threatening events and personal vulnerabilities, as well as thought suppression, which also aims to reduce perceived threats (Mikulincer et al., 2003). As a result, individuals high in attachment avoidance hold goals of avoiding frustration and distress in case the attachment figure is unavailable to meet their needs (Mikulincer, 1998). Again, these secondary attachment strategies may help reduce short-term distress, but may also cause multiple difficulties in the relationship including mental illness, relationship dissatisfaction, and relationship dissolution (Juhl, Sand, & Routledge, 2012; Le, Dove, Agnew, Korn, & Mutso, 2010; Mikulincer & Shaver, 2012). Low scores on both of these dimensions is characteristic of attachment security, which is defined as feeling a sense of security around others, comfort with closeness and interdependence, being able to depend on the support of others when needed, and use of adaptive coping strategies (Brennan et al., 1998). Here internal working models are characterized by a positive view of the self and of others, which allows for more flexible information processing and is often related to higher relationship commitment and relationship satisfaction (Feeney, 2002; Mikulincer, 1997). Secure individuals maintain goals of achieving greater closeness and intimacy with their romantic partner

(Mikulincer, 1998). Akin to how attachment insecurity has been associated with many negative outcomes, attachment security has been linked with increased resilience, improved mental health, and overall emotional well-being (Mikulincer & Shaver, 2012).

Recent empirical evidence points to the great impact that romantic attachment can have on overall family functioning as well as on romantic relationship processes (Hadden, Rodriguez, Knee, DiBello, & Baker, 2016; Pedro, Ribeiro, & Shelton, 2015). Additionally, a number of the most influential studies, some of which include actor-partner models, have shown strong empirical support linking one's own attachment (i.e., romantic and general) security with greater relationship satisfaction and one's own attachment insecurity with lower relationship satisfaction (Brassard et al., 2009; Brennan et al., 1998; Dandurand, Bouaziz, & Lafontaine, 2013; Feeney, Noller, & Callan, 1994; Molero, Shaver, Fernández, Alonso-Arbiol, & Recio, 2016; Simpson, 1990; Simpson, 2007; Simpson & Rholes, 1998). Given the large body of research on the subject, Mikulincer and Shaver (2016) provided an exhaustive review of the existing literature. An overwhelming number of studies on romantic relationships identified that attachment insecurity (i.e., both attachment anxiety and attachment avoidance) is linked to lower levels of satisfaction in the relationship (Mikulincer & Shaver, 2016). However, some differences according to gender and specific attachment dimensions have been identified. Specifically, avoidant attachment has been found to be linked with low relationship satisfaction for both men and women, and anxious attachment has been linked with low relationship satisfaction for women (Mondor, McDuff, Lussier, & Wright, 2011; Simpson, 1990). In the same sense, Collins and Read (1990) found that when men were more avoidant and women were more anxious, both partners were less satisfied in their relationship. As for partner effects, female's high attachment anxiety was shown to have a significant relationship with their male partner's low degree of

relationship satisfaction (Simpson, 1990). The literature also suggests that male attachment avoidance is more strongly associated to female's dissatisfaction in comparison to female attachment avoidance (Simpson & Rholes, 1998) and that, in general, attachment avoidance has a greater negative relationship with dissatisfaction (Mondor et al., 2011).

There are many possible mechanisms through which one's attachment may be associated to their own, as well as their partner's, level of relationship satisfaction (Collins, Cooper, Albino, & Allard, 2002). These pathways have been increasingly studied (Butzer & Campbell, 2008; Sadikaj et al., 2015), given the importance of better understanding the specific mechanisms that are ultimately associated with relationship dissatisfaction. As such, the level of dyadic trust, which can be defined as the amount of benevolence and honesty an individual feels their romantic partner expresses towards them (Larzelere & Huston, 1980), could serve as an important pathway through which insecure romantic attachment is associated with low relationship satisfaction. Mikulincer (1998) conceptualized dyadic trust using an attachment theory-based approach. He claimed that dyadic trust is founded on confidence in, and positive expectations of, a partner's availability and responsiveness. In other words, as mentioned earlier, the attachment system, as it is crystallized over time, helps create overarching perceptions towards oneself and towards others, and these working models go on to later inform whether an individual should or should not trust their current romantic partner (Mikulincer, 1998).

In that sense, securely attached individuals have working models (i.e., positive models of themselves and relationship partners) that foster dyadic trust, whereas the working models of anxiously attached individuals (i.e., negative views of self and hopeful yet guarded views of partners) or avoidantly attached individuals (i.e., inconsistent views of self and predominantly negative views of partners) aim to protect themselves from others rather than trusting their

partners to do so (Simpson, 2007). Individuals who are high in attachment security possess a greater number of accessible exemplars and memories of positive relationships and trust-validating experiences (Baldwin et al., 1996; Mikulincer, 1998). Additionally, attachment ruptures and violations of trust are not attributed to a stable disposition of the partner, but are rather attributed to negative situation-specific behaviors (Mikulincer, 1998). This sense of attachment security in the relationship not only protects and buffers the level of trust in the relationship, but can also perpetuate the growth of trust between romantic partners. However, individuals who are high in attachment insecurity are unable to maintain stable and reliable positive views of their relationship partners, which can hinder their ability to trust their partners. Given their lived experiences and the development of insecure working models, negative trust-related memories are more easily accessible and more weight is placed on these negative experiences (Mikulincer, 1998). These negative experiences can then be used as confirmation of their insecure global views of self and of others. Just as one's own romantic attachment influences their level of dyadic trust in the romantic relationship, one's own romantic attachment can influence their partner's level of dyadic trust. Similar to the deteriorating effect that insecure romantic attachment might have on one's own dyadic trust over time, insecure romantic attachment fosters a relationship climate of protecting and caring for the self rather than creating and maintaining greater closeness and intimacy, as is the case with secure romantic attachment. This, in turn, can have an effect on the partner's ability to trust since this directly influences the perception of benevolence and honesty expressed towards them. The use of secondary maladaptive coping strategies (i.e., hyperactivating and deactivating strategies) by an insecure partner can therefore negatively affect the relationship, distance partners, and deteriorate the level of trust the partner experiences. This phenomenon can also be better understood through a

behavioral confirmation theoretical framework. *Behavioral confirmation* is said to occur when a partner's behavior reflects the expectations induced by the other partner (Snyder & Klein, 2005). Therefore, an avoidant or anxious individual's insecure working model of others (i.e., hopeful yet guarded view and predominantly negative view of others) may have self-fulfilling impacts and negatively affect the partner's level of trust.

Dyadic trust has also been shown to be one of the most important elements for the development of well-functioning and happy relationships (Kemer, Bulgan, & Çetinkaya Yıldız, 2016; Regan, Kocan, & Whitlock, 1998; Wieselquist, 2009; Wieselquist, Rusbult, Foster, & Agnew, 1999). A recent study conducted by Kim et al. (2015) found that when at least one romantic partner had low trust in their partner, both partners felt less close to each other. From a theoretical attachment perspective, relationship satisfaction is thought to be dependent on the degree of fulfillment of basic human needs, which includes the reciprocation of trust (i.e., feeling that the other will protect and love them). Trust promotes the initiation, investment, and preservation of romantic relationships, whereas the lack of trust in the relationship often leads to relationship dissolution (Simpson, 2007). In a sense, when one partner has low dyadic trust (i.e., one perceives their partner as malevolent or dishonest), their own relationship satisfaction may be greatly impacted since their perception of relationship security is impaired. Similarly, when one's partner has low dyadic trust, this may also have a negative effect on one's own level of relationship satisfaction since their partner perceives them as deceitful or dishonest. Therefore, the study of trust from an attachment perspective is one of many essential elements in understanding low relationship satisfaction.

Empirical data appear to indicate that there are theoretical links between insecure attachment, low dyadic trust, and low relationship satisfaction, with over two decades of

literature supporting these associations (Cassidy & Shaver, 2008). More specifically, a multitude of early studies suggested the presence of a direct significant relationship between insecure attachment and lower general trust (Bartholomew & Horowitz, 1991; Collins & Read, 1990; Fraley & Davis, 1997; Mikulincer, 1998; Simpson, 1990). Simpson (2007) provides a thorough literature review of these early works. For the most part, these studies showed a similar result, demonstrating a significant link between adult attachment security and higher levels of general trust, as well as between adult attachment insecurity (i.e., anxious and avoidant general adult attachment styles) and lower levels of general trust (Collins & Read, 1990; Keelan, Dion, & Dion, 1994; Simpson, 1990). Few studies have taken into account the actor and partner effects of attachment on trust, and none have taken into account the effects of romantic attachment on trust. However, Simpson (1990) conducted Pearson product-moment correlations between actor and partner variables, and found a relationship between male avoidance and lower female trust, as well as between female avoidance and lower male trust.

Although there have been few studies that have examined the relationship between dyadic trust and relationship satisfaction, existing literature suggests similar patterns. Empirical literature has predominantly demonstrated a significant association between higher levels of dyadic trust and higher levels of relationship satisfaction in heterosexual romantic relationships (Anderson & Emmer-Sommer, 2006; Patrick, Beckenbach, Sells, & Reardon, 2013; Wieselquist, 2009). Few studies, however, have investigated actor and partner links between dyadic trust and relationship satisfaction. A diary study conducted by Campbell, Simpson, Boldry, and Rubin (2010) filled this gap in the literature by demonstrating that one's own lower trust and partner's lower trust was significantly linked to lower relationship quality stability with significant gender moderations. Specifically, among men only, researchers found that having a

more trusting partner was associated with greater stability in relationship quality. However, while the use of the data collected from the daily diary entries helped to assess the variability in partners' perceptions of relationship quality, this study did not offer specific information on the level of satisfaction or dissatisfaction with the relationship.

It was Simpson's (1990) study that laid the groundwork, underlying the importance of studying the direct association between adult attachment, relationship satisfaction, and trust within a romantic dyad. However, to our knowledge, only one study has examined the mediating effect of dyadic trust in the association between attachment and relationship satisfaction using an actor-partner interdependence model. Karantzas, Feeney, Goncalves, and McCabe (2014) recently examined a double-mediation model between general adult attachment orientations and relationship satisfaction with a sample of 95 heterosexual couples. More specifically, they investigated multiple possible mediators, including provision of support, destructive conflict management, trust, and intimacy. Results showed significant actor effects. To be specific, they found that general adult attachment anxiety and attachment avoidance were negatively associated with trust for both men and women. Although this study did not specifically look at the indirect effect between attachment, trust, and satisfaction, they did find significant double mediations. As such, they found that trust and intimacy helped explain the relationship between attachment anxiety and avoidance and relationship satisfaction. For partner effects, only women's attachment anxiety and avoidance had a direct negative effect on men's trust. The only significant indirect partner effect that was found was the relationship between women's attachment anxiety and avoidance with men's relationship satisfaction through the path linking women's trust and destructive conflict management. Although this complex theoretical model provides a novel way of explaining relationship functioning, the aim of the current study is to

test a concise model with a large sample of couples in order to obtain a precise picture of partner effects, which are often smaller than actor effects. As it has been described, the study of dyadic effects is crucial for the current model, given past theoretical and empirical gender differences for attachment, trust, and relationship satisfaction. Understanding the specific dyadic indirect pathways that are associated to relationship satisfaction offers a unique perspective on the reciprocal impacts partners may have on each other and, in turn, may guide future therapeutic interventions within couple therapy. It is also hoped that the study of romantic attachment, rather than general adult attachment, will complement the existing empirical literature, and show important associations with dyadic trust and relationship satisfaction, given its strong theoretical and empirical foundations in the literature.

Current Study

Although considerable empirical strides have been made in the field of relationship satisfaction, there has yet to be a study that has assessed romantic attachment with the intent to better understand the dynamics of dyadic trust on relationship satisfaction. This study will also incorporate some of the most advanced and up-to-date statistical dyadic data analyses in order to test hypothesized links, which are based on established theory and research.

An actor-partner interdependence mediation model (i.e., APIMeM; Ledermann, Macho, & Kenny, 2011) will be applied to examine the hypothesized associations between a partner's insecure romantic attachment and low relationship satisfaction through low dyadic trust. We will follow recommendations to test a fully saturated SEM model that allows for the measurement of direct effects, indirect effects, and total effects (Ledermann et al., 2011). Direct effects constitute the extent to which the dependent variable changes when the independent variable increases by one unit. As for indirect effects, they measure the extent to which the dependent variable changes

when the independent variable is held fixed and the mediator variable changes by the amount it would have changed had the independent variable increased by one unit (Pearl, 2001). Total effects constitute the sum of the direct and indirect effects (Pearl, 2001). This approach allows us to examine whether each partner's romantic attachment is associated with each partner's relationship satisfaction, and whether this relationship is mediated by each partner's dyadic trust (i.e., whether romantic attachment may exert an indirect influence on relationship satisfaction through the mediating variable).

All hypothesized relationships are illustrated in Figure 1.

H1: There is a series of male and female *actor effects*, including direct effects between attachment avoidance, attachment anxiety, and relationship satisfaction (i.e., direct paths $c'a1$, $c'a2$, $c'a3$, $c'a4$). More specifically, romantic attachment (i.e., attachment avoidance and attachment anxiety) is associated with lower relationship satisfaction.

H2: There is full actor mediations, including indirect effects from romantic attachment to relationship satisfaction through dyadic trust (i.e., indirect paths $aa1$ to $ba1$, $ap2$ to $bp1$, $aa2$ to $ba2$, $ap1$ to $bp2$ for male and female attachment avoidance, and indirect paths $aa3$ to $ba1$, $ap4$ to $bp1$, $aa4$ to $ba2$, $ap3$ to $bp2$ for male and female attachment anxiety).

H2a: One's own lower dyadic trust would help explain the relationship between one's own insecure romantic attachment and his or her own lower relationship satisfaction.

H2b: Partner's lower dyadic trust would help explain the relationship between one's own insecure romantic attachment and one's own lower relationship satisfaction.

H3: There is male and female *partner effects*, including direct effects between attachment avoidance and attachment anxiety with partner's relationship satisfaction (i.e., direct paths $c'p1$,

c'p2, c'p3, c'p4). Therefore, one's own attachment anxiety and avoidance is associated to the partner's lower relationship satisfaction.

H4: There is full partner mediations, including indirect effects from individual's romantic attachment to their partner's relationship satisfaction through dyadic trust (i.e., indirect paths aa2 to bp1, ap1 to ba1, aa1 to bp2, ap2 to ba2 for male and female attachment avoidance, and indirect paths aa4 to bp1, ap3 to ba1, aa3 to bp2, ap4 to ba2 for male and female attachment anxiety).

H4a: One's own lower dyadic trust would help explain the relationship between one's own insecure romantic attachment and partner's lower relationship satisfaction.

H4b: Partner's lower dyadic trust would help explain the relationship between one's own insecure romantic attachment and partner's lower relationship satisfaction.

Method

Participants

The sample consisted of 199 Canadian heterosexual couples ($N = 398$ individuals) from the community. Couples from the community were recruited through various means, such as via advertisements in local newspapers, which targeted the general population, and via strategically placed posters around a university campus, which targeted university students, and public facilities (e.g., book stores, child-care centers, community centers). Participants were also recruited through university presentations and wedding shows. A structured recruitment script was implemented by all experienced research assistants. In accordance with inclusion criteria, participants had to be at least 18 years of age (actual age was: $M = 31.02$ years, $SD = 10.25$ years). Additionally, both partners of the relationship were required to participate, had to be in a heterosexual relationship, and were asked if they had a very good knowledge of English. Couples were also required to be involved in a romantic relationship with the same partner for a minimum

of 12 months (actual length of the relationship was: $M = 5.96$ years, $SD = 7.77$ years), and cohabiting with their partner for at least 6 months (actual length of cohabitation was: $M = 4.27$ years, $SD = 7.45$ years). These last two inclusion criteria were enforced, as it is believed that these factors might ensure that the recruited couples are representative of close and stable relationships. Only 53 (13.3%) of the participants reported having children with their current partner and 22 (5.5%) of the participants chose not to disclose this information. Two hundred and thirty-eight of the participants had received a university degree (59.8%), 82 (20.6%) had received a college degree, 75 (18.8%) had a high school diploma, 2 (0.5%) of the participants completed primary school, and 1 (0.3%) of the participants chose not to disclose this information. Three hundred and thirty-four (83.9%) of the participants self-identified as Caucasian, 12 (3.0%) identified as Black, 20 (5.0%) identified as Asian, 8 (2.0%) identified as Latino/Hispanic, 6 (1.5%) identified as Middle Eastern, 3 (0.8%) identified as First Nations, 13 (3.3%) identified as having another racial or ethnic background, and 2 (0.5%) of the participants chose not to disclose this information.

Procedure

This study was part of a larger 3-year longitudinal study that was comprised of 3 participation time points (i.e., *Time 1*, *Time 2*, and *Time 3*), which were each separated by a 12-month period. Participants who participated in the present study only included those who took part at *Time 1*. Therefore, this study does not include longitudinal data, and thus utilizes a cross-sectional design. When booking a couple, research assistants first verified that both partners met the inclusion criteria, and spoke to each partner to confirm that they were both willing to participate in the study. All participants were informed about the purpose of the study, the content of the questionnaires, confidentiality of their data, their right to withdraw from the study

without consequences, and compensation for their participation (i.e., \$40 cheque per couple). Testing sessions lasted about 2 ½ hours and took place on a university campus. Participants were asked to read and sign a consent form detailing all necessary information. Once consent was obtained, participants completed all measures independently in a testing room with divided workspaces. The research assistants were available at all times, and would personally verify with both members of a couple separately every 15 minutes to answer questions or address concerns about items on the measures. Once completed, all participants received a signed photocopy of the consent form and a community resource sheet.

All participants were assigned an identification number, which appeared on their respective questionnaires and consent forms, and were used as an identifier in the database on password protected computers. These documents were stored separately in a locked cabinet to protect the participants' anonymity. Information from paper questionnaires were entered in a SPSS database, which was later transformed into a .dat file to permit Mplus (Muthén & Muthén, 2011) recognition for further analyses.

Measures

Sociodemographic information. Participants were asked to provide personal information, such as age, gender, ethnicity/racial background, and level of education. Relationship information, such as length of relationship, length of cohabitation, marital status, and number of children, was also collected.

Romantic attachment. Adult romantic attachment was measured with the *Experiences in Close Relationships-12* (ECR-12; Lafontaine et al., 2015) questionnaire. This questionnaire is a 12-item measure comprised of a six-item attachment anxiety subscale (e.g., "I worry about being abandoned") and a six-item attachment avoidance subscale (e.g., "I don't feel comfortable

opening up to romantic partners”). Participants were asked to rate their feelings in close relationships using a Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). An elevated mean score on each respective dimension is suggestive of either higher attachment anxiety or attachment avoidance. Lafontaine et al. (2015) reported alpha coefficients varying from .74 to .83 for the avoidance subscale and from .78 to .87 for the anxiety subscale in English, French-Canadian, same-sex, and clinical couple samples. These four studies also demonstrated the convergent and predictive validities of the ECR-12 (Lafontaine et al., 2015). The alpha coefficients reported in the present study indicated similar results for the avoidance subscale ($\alpha = .78$) and for the anxiety subscale ($\alpha = .84$).

Dyadic trust. Dyadic trust was measured with the *Dyadic Trust Scale* (DTS; Larzelere & Huston, 1980). This questionnaire is an eight-item measure that assesses the one-dimensional construct of dyadic trust in romantic relationships. Respondents were asked to report on the amount of benevolence and honesty they feel their partner expresses towards them with the use of a Likert scale, which ranged from 1 (*Very strongly disagree*) to 7 (*Very strongly agree*). Examples of items included “I feel that my partner can be counted on to help me” for benevolence and “My partner is perfectly honest and truthful with me” for honesty. Given that the *Dyadic Trust Scale* is a one-dimensional measure, all items were averaged to create one mean score of dyadic trust. Lower scores are indicative of the participant having lower trust of his/her respective partner. Larzelere and Huston (1980) reported high reliability with an alpha coefficient of .93. They also reported good construct validity as dyadic trust is strongly associated with love, self-disclosure, and commitment in heterosexual populations. The alpha coefficient for the scale in the present study ($\alpha = .89$) revealed a similar result.

Relationship satisfaction. Relationship satisfaction was measured with the *Dyadic Adjustment Scale- 4 items* (DAS-4; Sabourin, Valois, & Lussier, 2005). This questionnaire is a four-item measure used to assess the degree of relationship satisfaction for individuals in marital or cohabiting relationships, and is derived from the original DAS-32 (Spanier, 1976). Responses for items 1-3 were reported using a Likert scale ranging from 0 (*All the time*) to 5 (*Never*), while responses for item 4 were reported using a Likert scale ranging from 0 (*Extremely unhappy*) to 6 (*Perfect*). Items included “How often do you discuss or have you considered divorce, separation, or terminating your relationship” and “Do you confide in your mate.” All items were summed given the differences in scaling. Higher scores suggested higher relationship satisfaction. Sabourin et al. (2005) reported high reliability with an alpha coefficient of .84. The current study found a lower but reliable alpha coefficient ($\alpha = .71$) for the scale.

Statistical Analyses

Preliminary Analyses

Preliminary analyses were first completed in order to evaluate missing data, outliers, and normality of data. An evaluation of missing data using Little’s Missing Completely at Random (MCAR) test revealed that the data may be assumed missing completely at random ($\chi^2(6) = 7,307, p = .29$) and that there were no variables with more than five percent missing data. We used the expectation maximization (EM) method in order to estimate missing values. All univariate and multivariate outliers were identified. However, considering the outliers were legitimate cases sampled from the correct population, and considering that transformation methods can significantly limit the interpretation of the data, alternate methods were used to address this violated assumption. Mplus provides maximum likelihood with robust standard errors (MLR) and a robust test statistic for model evaluation (Muthén & Muthén, 2011). Robust

methods also can be used with severely non-normal distributions, and can be used as an alternative to transformation or truncation methods (Kline, 2016). Assumptions of normality of data were also verified using descriptive statistics (i.e., skewness and kurtosis), boxplots, and histograms. However, these assumptions were not followed and, again, as an alternative to log or square root transformations, Mplus' MLR estimator as well as separate bootstrapped test statistics were used in the final analysis to address these limits. Additionally, alpha coefficients were calculated to establish the reliability of each scale included in this study.

Descriptive Analyses

Descriptive statistics were assessed for all sociodemographic information. The means, standard deviations, and Pearson correlations were also assessed for all variables of interest (i.e., attachment avoidance, attachment anxiety, dyadic trust, and relationship satisfaction) for males and females separately in order to control for the non-independence of the data. Four separate one-way ANOVAs were conducted to compare the effects of gender on attachment insecurity (i.e., attachment avoidance and attachment anxiety), on trust, and on relationship satisfaction.

Principal Analyses

Structural equation modeling (SEM) is a statistical technique that can estimate complex models all at once (Byrne, 2012). This technique is particularly favored when conducting dyadic data analyses since this method analyses the degree of non-independence, which is able to verify if one individual's score is associated to the other person's score. Also, SEM is particularly useful in assessing dyads that are distinguishable (Kenny & Ledermann, 2010). Therefore, this method was utilized in the present study in order to conduct the principal analysis, which is an actor-partner interdependence mediation model (APIMeM; Ledermann et al., 2011). We used the bias-corrected bootstrap 95% CIs to determine whether indirect and total effects were

statistically significant. The bootstrap method has been advocated for assessing both indirect effects (IEs) and contrasts among effects (Ledermann et al., 2011). This non-parametric method is based on resampling with replacement, which, in this case, was done 5000 times (i.e., 5000 samples). The indirect effects were computed and a sampling distribution was generated from each of these samples (Shrout & Bolger, 2002). Finally, dyadic patterns were estimated within the APIMeM with the k parameter, which is a ratio of the partner effect on the actor effect ($k = p/a$) (Kenny & Ledermann, 2010). The k parameter value was estimated and then fixed to an interpretable value dependent on the confidence interval values (Kenny, 2013). In the present study, all values that were included in the generated confidence intervals were tested in combination in order to find the overall best fitting model. For this study, all hypotheses were tested in one model (see Figure 1).

Results

Bivariate Correlations and Mean Differences

Means and standard deviations of measures are presented in Table 1. Significant correlations were found between male and female romantic partner's insecure attachment, dyadic trust, and relationship satisfaction. Specifically, male attachment avoidance was negatively related to male ($r = -.33, p = .00$) and female ($r = -.27, p = .00$) dyadic trust, as well as male ($r = -.43, p = .00$) and female ($r = -.37, p = .00$) relationship satisfaction. Male attachment avoidance was positively related to female attachment avoidance ($r = .23, p = .00$). Male attachment anxiety was negatively correlated with male dyadic trust ($r = -.38, p = .00$), and male ($r = -.22, p = .00$) and female ($r = -.20, p = .01$) relationship satisfaction. Female attachment avoidance was negatively correlated with female dyadic trust ($r = -.30, p = .00$) and male ($r = -.30, p = .00$) and female ($r = -.46, p = .00$) relationship satisfaction, as well as positively correlated with female attachment

anxiety ($r = .15, p = .03$). Female attachment anxiety was negatively correlated with female dyadic trust ($r = -.19, p = .00$) and female relationship satisfaction ($r = -.19, p = .00$). Male dyadic trust was positively correlated to female dyadic trust ($r = .20, p = .00$), and they both were positively correlated to male ($r = .44, p = .00$) and female ($r = .40, p = .00$) relationship satisfaction. Male relationship satisfaction was positively correlated with female relationship satisfaction ($r = .45, p = .00$). Additionally, correlations were assessed between relationship satisfaction and possible covariates, including male and female age, education, and length of relationship. Only one significant correlation was found between male age and male and female relationship satisfaction. A one-way between subjects ANOVA was conducted to compare the effect of gender on attachment avoidance in males and females; however, no significant effect was found, $F(1, 397) = 1.12, p = 0.291$. A second one-way between subjects ANOVA was conducted to compare the effect of gender on attachment anxiety in males and females. There was a significant effect of gender on attachment anxiety at the $p < .05$ level for males and females, $F(1, 397) = 19.77, p = 0.000$. Specifically, females scored higher on attachment anxiety than males did. Two other one-way between subjects ANOVAs were conducted to compare the effect of gender on dyadic trust and relationship satisfaction in males and females; however, no significant effects were found, $F(1, 397) = 3.08, p = 0.080$ and $F(1, 389) = 0.00, p = 0.987$, respectively.

Mediation Model

As aforementioned, we used structural equation modeling (SEM) via Mplus Version 6 and followed the recommended steps to test an APIMeM with distinguishable dyads (Ledermann et al., 2011). First, we estimated the saturated distinguishable model and tested all direct (see results in Figure 2) and indirect (see results in Table 2) actor and partner effects. We also

included male and female age as covariates in the model. However, there were no differences between the hypothesized model and the alternate model, including age. When included in the model, age was not significantly associated with relationship satisfaction. Therefore, the original hypothesized model is presented in the current study. Multiple significant *a* direct effects ($X \rightarrow M$) were found including both *a* male actor effects. In SEM, within a correlational design, standardized path coefficients assessing the direct effect can be used as the effects size index *r* (Durlack, 2009). Compared to significance testing, this can be an optimal alternative for assessing the relative importance of effects. Male attachment avoidance ($\beta = -.31, p = .00$) and male attachment anxiety ($\beta = -.36, p = .00$) were associated with lower male trust with moderate effect sizes. Additionally, one *a* female actor effect was significant, specifically female attachment avoidance was associated with lower female trust with a moderate effect size ($\beta = -.23, p = .00$), whereas female attachment anxiety was marginally associated with lower female trust with a small effect size ($\beta = -.13, p = .07$). No male *a* partner effects were significant with negligible effect sizes ($\beta < -.02$). One female *a* partner effect was significant, specifically male attachment avoidance was associated with lower female trust with a small to moderate effect size ($\beta = -.20, p = .00$), whereas male attachment anxiety was not associated with female trust ($\beta = -.05, p = .39$). Both *b* actor effects ($M \rightarrow Y$) were significant, that is, lower male trust was associated with lower male relationship satisfaction ($\beta = .30, p = .00$) and lower female trust was associated with lower female relationship satisfaction ($\beta = .29, p = .00$) with moderate effect sizes. Also, one *b* female partner effect was significant, specifically lower male trust was associated to lower female relationship satisfaction ($\beta = .24, p = .00$), whereas female trust was not associated with male satisfaction ($\beta = .07, p = .21$). Finally, two *c'* actor effects ($X \rightarrow Y$) were significant, that is, male attachment avoidance was associated to lower male relationship

satisfaction ($\beta = -.26, p = .00$) and female attachment avoidance was associated to lower female relationship satisfaction ($\beta = -.29, p = .00$) with moderate effect sizes. Also, two c' partner effects were significant, specifically female attachment avoidance was associated with lower male relationship satisfaction ($\beta = -.16, p = .00$) and male attachment avoidance was associated with lower female satisfaction ($\beta = -.14, p = .01$) with small effect sizes. Contrary to our hypotheses, high attachment anxiety in neither men nor women was directly associated to lower relationship satisfaction (all $\beta < -.06$). However, given the possibility that dyadic trust could possibly fully mediate the relationship between attachment anxiety and relationship satisfaction, all indirect effects were tested.

As for the indirect effects (see Table 2), 6 of the 16 mediations were significant and had small effect sizes. For both male and female actor-actor simple indirect effects, dyadic trust was found to partially mediate the relationship between attachment avoidance and relationship satisfaction. To be specific, low male trust partially explained the relationship between male attachment avoidance and lower male relationship satisfaction ($\beta = -.09, 95\% \text{ CI } [-0.54, -0.11]$), and low female trust partially explained the relationship between female attachment avoidance and lower female relationship satisfaction ($\beta = -.07, 95\% \text{ CI } [-0.51, -0.62]$). Also, as for the male actor-actor simple indirect effect for anxiety, dyadic trust was found to fully mediate the relationship between male attachment anxiety and relationship satisfaction. Specifically, low male trust partially explained the relationship between male attachment anxiety and lower male relationship satisfaction ($\beta = -.11, 95\% \text{ CI } [-0.45, -0.10]$). As for both female actor-partner simple indirect effects for attachment avoidance and attachment anxiety, dyadic trust was found to partially mediate the relationship between attachment and relationship satisfaction. Specifically, low male trust partially explained the relationship between male attachment avoidance and lower

female relationship satisfaction ($\beta = -.07$, 95% CI [-0.53, -0.08]). Also, low female trust partially explained the relationship between male attachment avoidance and lower female relationship satisfaction ($\beta = -.06$, 95% CI [-0.49, -0.04]). Finally, as for the female partner-actor simple indirect effects for attachment anxiety, dyadic trust was found to fully mediate the relationship between attachment anxiety and relationship satisfaction. Specifically, low male trust helped explain the relationship between male attachment anxiety and lower female relationship satisfaction ($\beta = -.08$, 95% CI [-0.38, -0.09]).

Second, k parameters were examined in order to identify underlying dyadic patterns. These parameters were estimated by using phantom variables, which are latent variables with no meaning or disturbance (see Table 3). When testing the model with phantom variables, bootstrap for confidence intervals (CIs) were used to interpret the k parameters. The k s were then correspondingly fixed to the closest values of the obtained estimates. As such, five different models were tested in order to find the closest and best fitting values for dyadic patterns (see Table 4). Results indicated that the fit of the last model tested proved to be the best fit to our data. The chi-square test showed that the model was consistent with the data, $\chi^2 = 1.426$, $p = 0.964$, which showed acceptable fit (Hooper, Coughlan, and Mullen, 2008). The RMSEA of .000 met the cutoff for excellent fit (acceptable <0.10 , excellent <0.03). The CFI of 1.00 (>0.95), the SRMSR of 0.011 (acceptable <0.10 , excellent <0.03), and the TLI of 1.065 (>0.96) indicated good fit. Male and female insecure attachment helped explain 23.5% of the variance in male dyadic trust ($R^2 = 0.235$) and helped explain 15.1% of the variance in female dyadic trust ($R^2 = 0.151$). Male and female insecure attachment and dyadic trust helped explain 33.0% of the variance in male relationship satisfaction ($R^2 = 0.330$) and 42.2% of the variance in female relationship satisfaction ($R^2 = 0.422$). In this case, k_I , the ratio of the $ap1/aa1$, was set to 0, which

is indicative of an actor-only pattern for the effects of attachment avoidance on male trust; therefore, male attachment avoidance had a significant effect on male trust, but female attachment avoidance did not. As for the effect of attachment avoidance on female trust, k_2 , the ratio of ap_2/aa_2 , was set to 1, indicating the presence of a couple oriented pattern. This means that male attachment avoidance had just as much of an effect on female trust as female attachment avoidance did. As for the effect of attachment anxiety on male trust, k_3 , the ratio of ap_3/aa_3 , was set to 0, indicating an actor-only pattern. Therefore, male attachment anxiety was associated to male trust, whereas female attachment anxiety had no association to male trust. Although both effects (i.e., ap_4 and aa_4) were non-significant, the ratio of ap_4/aa_4 was calculated. Therefore, k_4 was finally set to 0.5, which points to a pattern that is halfway between an actor-only pattern and a couple-oriented pattern. In other words, this result informs us that the actor effect is twice as large as the partner effect. As for the effect of trust on male satisfaction, k_5 , the ratio of bp_1/ba_1 , was finally set to 0, which indicates an actor-only pattern. This means that only male trust, and not female trust, was associated to male relationship satisfaction. Finally, k_6 , the ratio of bp_2/ba_2 , was finally set to 1, which points to the presence of a couple-oriented pattern. Therefore, both male and female trust was equally associated to female relationship satisfaction.

Finally, in order to offer greater credence to our proposed model, we tested an alternative model where relationship satisfaction was the hypothesized mediator in the relationship between romantic attachment and dyadic trust. However, after fixing the k s to their closest fitting values, the overall model was revealed to be a poor fit to our data, which was unacceptable. For the first alternative model that was proposed, we fixed k_1 at 0, k_2 at 0.5, k_3 at 0, k_4 at 1, k_5 at 1, and k_6 at 1. This model yielded poor fit indices, $\chi^2(6, N = 199) = 20.755, p < .01, SRMR = 0.048, RMSEA =$

0.111, TLI = 0.789, CFI = 0.942. For the second alternative model that was proposed, we fixed k_1 at 0.5, k_2 at 0.5, k_3 at 0, k_4 at 1.5, k_5 at 1.5, and k_6 at 2. Again, this model yielded poor fit indices, $\chi^2(6, N = 199) = 17.308, p < .01, SRMR = 0.033, RMSEA = 0.097, TLI = 0.838, CFI = 0.956$. Therefore, these results support our initial proposed mediation model.

Discussion

The overarching objective of the current study was to extend previous research linking both partners' relationship functioning variables to romantic relationship well-being. Specifically, the main goal was to assess the actor, partner, and mediating effects of low dyadic trust in the relationship between insecure romantic attachment and low relationship satisfaction with a sample of heterosexual couples ranging from young to later adulthood. In general, we found that low dyadic trust did serve as a mediator between insecure romantic attachment and low relationship satisfaction for both actor and partner effects. However, we found interesting differences in regard to results pertaining to gender and attachment dimensions.

Mediation results

Actor effects. At the outset, an important question we aimed to answer was whether or not attachment insecurity could be linked to lower relationship satisfaction. We did find significant direct effects between high attachment avoidance and lower relationship satisfaction in men and women. However, contrary to our hypotheses, high attachment anxiety in neither men nor women was directly associated to lower relationship satisfaction, which contradicts a large body of work on the subject (Brassard et al., 2009; Brennan et al., 1998; Feeney et al., 1994). That said, recent evidence has demonstrated similar trends. For instance, in a recent study conducted by Molero et al. (2016), which investigated self-rated and perceived partner

attachment representations in relation to relationship satisfaction, they found that self-rated attachment anxiety was not directly linked with one's own and partner's level of satisfaction. In the present study, although there was no direct link between attachment anxiety and relationship satisfaction, there may be strong mediating variables that could account for the variance between attachment anxiety and relationship satisfaction. As described below, this was the case for the relationship between male attachment anxiety and relationship dissatisfaction in the present sample. This further affirmed the necessity to investigate indirect effects in order to clearly understand the relationship between insecure romantic attachment and relationship satisfaction.

When investigating mediational effects, as anticipated, men who were high in attachment avoidance and anxiety were more likely to have lower trust, which, in turn, made them more likely to be dissatisfied with their romantic relationship. Likewise, women high in attachment avoidance were more likely to have lower trust, which, in turn, made them more likely to be dissatisfied with their romantic relationship. Interestingly, this indirect effect was not found to be significant in women high in attachment anxiety. Similarly, Karantzas et al. (2014) found these mediational effects in their study as well; however, they also found with a significant mediating actor effect between attachment anxiety and low relationship satisfaction in women through low dyadic trust and, in turn, through low intimacy. Although both attachment avoidance and attachment anxiety have theoretically and empirically been linked to lower trust, attachment avoidance has more consistently shown to share this relationship (Simpson, 1990). Simpson's (2007) theoretical and empirical literature review of trust explains how attachment insecurity is directly linked to lower dyadic trust. Simpson (2007) argues that this significant relationship should specifically be a predominant finding for attachment avoidance (i.e., individuals who have variable self-views and predominately negative views of partners) versus attachment

anxiety (i.e., individuals who have negative self-views and hopeful, yet guarded, views of partners). Theoretically, high attachment avoidance, which is more often linked with the use of deactivating strategies, including emotional, cognitive, and physical distancing from romantic partners, should be linked to lower trust in one's ability to be honest to and care for their partner, as their negative view of others seem to impair their ability to trust their partner. Additionally, their use of deactivating strategies may maintain this view since these strategies (i.e., excessive independence) also imply a lack of dyadic trust. As previously mentioned, only low male trust helped explain the relationship between their own high attachment anxiety and their own level of dissatisfaction in their relationship. This gender difference could be explained by the nature of our sample. A recent meta-analysis on romantic attachment conducted by Del Giudice (2011) found that the largest sex difference was found in community samples, where men were higher in avoidance and lower in anxiety compared to women, which points to a larger social trend. In the present sample, although no differences were found for the effect of gender on attachment avoidance, we did find that females were significantly higher in attachment anxiety compared to males. Nevertheless, there is still a considerable amount of our male sample that is high on attachment anxiety. It is important to note that women in North America are often socialized to be relationship-oriented, which is associated with attachment anxiety, whereas men tend to be socialized to be self-reliant, which is associated with attachment avoidance (Mondor et al., 2011). Women displaying gestures of attachment anxiety may be perceived as behaving within the spectrum of socially-sanctioned behavioral scripts considered typical of women. By comparison, displays of attachment anxiety on behalf of a male may be given more valence and be deemed more concerning, given its stark contrast to the societal stereotype of males being independent and more emotionally autonomous. Thus, male attachment anxiety may be more

readily perceived as a concerning lack of trust in his partner, and have a more negative impact on their level of dyadic trust and relationship satisfaction compared to women high in attachment anxiety.

Our final actor effects looked at the relationship between one's own insecure attachment and one's own relationship satisfaction through partner dyadic trust. Contrary to our initial hypotheses, partner's low trust helped explain the relationship between high attachment insecurity in men and women and their own level of relationship satisfaction. These results seem to reveal that if men and women are insecurely attached, they will not necessarily be less satisfied in their relationship when their partner has low trust in them, but rather this is more likely when they themselves have difficulty trusting their partner. Given that insecurely attached individuals maintain goals of protecting and caring for the self rather than creating and maintaining greater felt security for their partner (Brennan et al., 1998; Mikulincer, 1998; Mikulincer & Shaver, 2016), there may be little awareness of their partner's low level of trust or even the potential of low available cognitive resources to be conscious of their partner's trust issues. Recent evidence (Chaperon, Dandeneau, Lydon, Pascuzzo, & Auger, 2016; Zheng, Zhang, & Zheng, 2015) suggests that individuals high in attachment avoidance use more cognitive resources to perceive affective stimuli rather than neutral stimuli, and that they would deactivate and defend against encoded stimuli. This neurophysiological presentation of deactivation strategies in relation to emotion processing in others helps contextualize how insecurity may play a role in the perception of a partner's experience. More research on anxious attachment and hyperactivating strategies in relation to emotional processing would be important to better understand how these strategies may overwhelm and, in turn, limit the perception of other's experience. Therefore, in the present study, the partner's trust issues may not play an

important mediational role in influencing the relationship satisfaction of an insecure individual but rather, as we found, this relationship can be better explained by the insecure individual's own trust issues.

Partner effects. We found that not only can an individual's personal characteristics affect their relationship dissatisfaction, but we also found that their partner's attributes can contribute to one's own sense of dissatisfaction. As expected, just as insecurely attached men (i.e., attachment anxiety and avoidance) were more likely to be dissatisfied in their relationship, they were also more likely to have dissatisfied partners when they themselves had low trust. A different portrait was obtained for women. That is, women high in attachment insecurity were not more likely to have dissatisfied partners when they reported low levels of trust. Therefore, we observed that the low levels of trust insecurely attached men experienced were associated to women's relationship dissatisfaction; however, the reverse could not be applied, as the low levels of trust insecurely attached women experienced did not negatively affect men's level of relationship satisfaction. Our theoretical understanding of the impacts attachment insecurity and low trust have on the overall relationship satisfaction can help contextualize these results. Just as attachment insecurity is associated with lower dyadic trust, it could be understood how being perceived as malevolent or dishonest by one's partner (i.e., low trust) may influence one's own relationship satisfaction since the level of safety in the relationship is compromised. However, men seemed less affected by their female partner's insecurity or low trust. This gender difference could also be attributed to differences in gender socialization. Given that most men are taught to value independence, men might undervalue the importance of their partner's trust in them. As for women, they are more often socialized to be relationship-oriented and might desire more interdependent relationships that involve greater trust (Maddux & Brewer, 2005). Some studies

support our direct partner results, specifically, a study conducted by Collins and Read (1990) found that men's comfort with closeness most strongly affected women's relationship evaluations but found no effect for men's attachment anxiety. However, one study conducted by Feeney (1994) found that men's anxiety was linked with lower satisfaction for both men and women. Conversely, our indirect partner effects differed from Karantzas et al.'s (2014) results. They found that female attachment anxiety and avoidance was linked to lower male relationship satisfaction through the double mediation of women's destructive conflict management and women's trust. It is possible that we did not find a relationship between female insecurity and male satisfaction because they included a second mediator (i.e., conflict management) in their model, which may take into account much of the variance of this indirect effect. Also, the significant relationship between male attachment insecurity and low female satisfaction for the current study may have been identified because of our increased power.

Our final partner mediational effect looked at the relationship between one's own attachment insecurity and partner's relationship satisfaction through the partner's level of trust. One significant indirect effect was found. Specifically, men high in attachment avoidance were more likely to have dissatisfied women partners when these women had difficulties trusting them. This result is consistent with Simpson's (1990) correlational within-dyad results. Specifically, he found that attachment avoidance was associated with less partner-reported trust. He attributed this to the notion that individuals high in attachment avoidance may produce heightened distrust in their romantic partner because of their use of deactivating strategies.

It is important to note that although neither male or female trust helped explain the relationship between female attachment insecurity and male relationship satisfaction; one direct male partner effect was identified. As such, women who were high in attachment avoidance were

more likely to have dissatisfied male partners. This means that although male and female trust was not found to be a significant mediator of this direct relationship, there may be other possible mediating variables, such as self-esteem or trait characteristics, that can explain for the relationship between women's attachment insecurity and men's low levels of relationship satisfaction.

Limitations and Future Directions

This study has particular limitations that are important to consider when discussing the results. For instance, the use of a homogeneous sample could limit the generalization of the results. This study also solely relied on self-report data, which might have led to overestimations of effects due to social desirability or shared method variance. As previously mentioned, although the proposed model fully fit the data, the effects of the current study can only be interpreted with reference to the cross-sectional design of the study, which does not allow the affirmation of causality and directionality. Although alternative models were tested, it would be advantageous to conduct longitudinal studies in order to better understand the directionality of this phenomenon. Another limitation of this study is the use of a four-item measure of relationship satisfaction. Although the DAS-4 is a widely used measure, its brevity may not fully capture the complex and multidimensional picture of relationship satisfaction, and thus may have limited the measured variance. Additionally, although statistical methods were used to reduce biases in the data, outliers were kept in the data set and assumptions of normality were not met for the current sample. Another limit of the study is the use of composite variables in the model. This statistical strategy, though it assures a concise model, also leads to possible biases in the actual comparability of the factorial constructs across dyads.

Future studies should aim to reduce these limitations by assessing longitudinal or experimental designs of similar APIMeMs, as well as utilizing mix-method designs to reduce overall study biases. In addition, future studies could search for other possible mediating variables in play. It may be of interest, for example, to assess self-esteem as a possible mediator of the relationship between attachment anxiety and relationship satisfaction. Since individuals high in attachment anxiety have predominantly negative self-views, self-esteem may help to better explain this relationship.

Conclusion

Couple satisfaction is probably one of the most important components of a healthy, long-lasting relationship. The maintenance of long-term satisfactory relationships is regarded as a significant and important life goal for overall mental and physical health (Davila, Bradbury, & Fincham, 1998; Mikulincer & Shaver, 2016). Still many couples are not satisfied in their relationship. The current study offers a unique dyadic perspective on potential determinants of couple satisfaction, which can help us gain a better understanding of patterns that may arise in couple therapy. In light of our findings, once clinicians have assessed for attachment insecurity, they may be guided to address issues of distrust in men and women since we can see the great impacts it may have on the capability to be both happy and satisfied with their relationship. Clarifying attachment positions and consequential effects of dyadic trust on relationship satisfaction can not only inform and supplement the clinician's conceptualization of negative interactional cycles but can also serve to guide clinician's interventions.

Studies such as these have an ultimate goal of bringing empirical support to existing couple therapies or even help refine specific clinical interventions. Couple dissatisfaction is one of the primary complaints reported when couples consult for help (Foran et al., 2015). The

results of the current study largely support Emotionally Focused Therapy (EFT) for couples, one of the leading clinical frameworks for couple therapy, which strives to increase relationship satisfaction. EFT for couples is a structured evidenced-based psychological approach that tries to understand how partners construct their emotional experience of relatedness and how partners engage each other (Johnson, 2004). The goal is to reprocess experiences and reorganize interactions, or the interactional cycle, in order to create a secure bond between partners (Johnson, 2004). The key elements of therapy focus on attachment concerns, including safety and trust in one another (Johnson, 2004). Partners work towards taking emotional risks as well as comforting and supporting one another when emotionally vulnerable. This cyclical sequence fosters feelings of connectedness and trust that the other will be there for them when exposed and vulnerable. One of the most effective therapeutic techniques in EFT is to ‘re-engage’ the withdrawn partner, whom is also known as the partner who is high in attachment avoidance, and to ‘soften’ the pursuer, whom is also known as the partner who is high in attachment anxiety (Burgess Moser et al., 2015). Without the resolution of these therapeutic steps, the withdrawer does not become accessible or emotionally engaged with the other and the pursuer is not available to listen or connect with the other. Our results support this therapeutic approach, specifically by showing that both partners’ positive regard of one another, and their ability to trust and rely on each other, is associated with relationship satisfaction.

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Table 1

Descriptive Statistics and Correlations for the Study Variables

	1	2	3	4	5	6	7	8
1. Male Attachment Avoidance	-							
p-value	-							
2. Male Attachment Anxiety	.07	-						
p-value	.329	-						
3. Male Dyadic Trust	-.33	-.38	-					
p-value	.000	.000	-					
4. Male Relationship Satisfaction	-.43	-.22	.44	-				
p-value	.000	.001	.000	-				
5. Female Attachment Avoidance	.23	.09	-.12	-.30	-			
p-value	.001	.226	.103	.000	-			
6. Female Attachment Anxiety	.12	.08	-.07	-.13	.15	-		
p-value	.085	.281	.343	.047	.030	-		
7. Female Dyadic Trust	-.27	-.10	.20	.27	-.30	-.19	-	
p-value	.000	.177	.006	.000	.000	.007	-	
8. Female Relationship Satisfaction	-.37	-.20	.40	.45	-.46	-.19	.47	-
p-value	.000	.006	.000	.000	.000	.007	.000	-
<i>M</i>	2.41	2.93	5.86	16.65	2.30	3.53	5.66	16.64
<i>SD</i>	.95	1.29	.99	2.89	1.04	1.37	1.28	3.33

Note. $N = 199$.

Table 2

Unstandardized Estimates, Bootstrap Confidence Intervals, and Proportion of the Total Effects

<i>Effect</i>	<i>Estimate</i>	<i>95% CI</i>	<i>Proportion of the Total Effect (Multiplied by 100)</i>
Effects from Male avoidance → Male satisfaction			
Total effect	-1.12	-1.56,-0.73	
Total IE	-0.32	-0.58,-0.14	28.57
Male avoidance, Male trust, Male satisfaction IE	-0.27	-0.54,-0.11	24.11
Male avoidance, Female trust, Male satisfaction IE	-0.04	-0.17,0.01	3.57
Direct effect	-0.80	-1.26,-0.33	71.43
Effects from Male anxiety → Male satisfaction			
Total effect	-0.39	-0.66,-0.11	
Total IE	-0.25	-0.46,-0.11	64.10
Male anxiety, Male trust, Male satisfaction IE	-0.24	-0.45,-0.10	61.54
Male anxiety, Female trust, Male satisfaction IE	-0.00	-0.07,0.00	0.00
Direct effect	-0.14	-0.42,0.17	35.90
Effects from Female avoidance → Female satisfaction			
Total effect	-1.16	-1.68,-0.65	
Total IE	-0.22	-0.54,-0.03	18.97
Female avoidance, Male trust, Female satisfaction IE	-0.01	-0.15,0.07	0.86
Female avoidance, Female trust, Female satisfaction IE	-0.21	-0.51,-0.62	18.10

Direct effect	-0.94	-1.40,-0.50	81.04
Effects from Female anxiety→ Female satisfaction			
Total effect	-0.21	-0.49,0.07	
Total IE	-0.09	-0.28,0.04	42.86
Female anxiety, Female trust, Female satisfaction	-0.09	-0.27, 0.00	42.86
IE			
Female anxiety, Male trust, Female satisfaction IE	-0.00	-0.007, 0.09	00.00
Direct effect	-0.12	-0.38, 0.14	57.14
Effects from Male avoidance → Female satisfaction			
Total effect	-0.93	-1.36,-0.48	
Total IE	-0.44	-0.80, -0.20	47.31
Male avoidance, Male trust, Female satisfaction IE	-0.24	-0.53,-0.08	25.81
Male avoidance, Female trust, Female satisfaction	-0.20	-0.49,-0.04	21.51
IE			
Direct effect	-0.49	-0.91,-0.11	52.69
Effects from Male anxiety → Female satisfaction			
Total effect	-0.34	-0.72,0.00	
Total IE	-0.26	-0.46,-0.09	76.47
Male anxiety, Male trust, Female satisfaction IE	-0.22	-0.38,-0.09	64.71
Male anxiety, Female trust, Female satisfaction IE	-0.04	-0.17,0.04	11.77
Direct effect	-0.09	-0.47,0.26	26.47
Effects from Female avoidance → Male satisfaction			
Total effect	-0.51	-0.85,-0.17	

Total IE	-0.06	-0.23,0.07	11.77
Female avoidance, Male trust, Male satisfaction IE	-0.02	-0.15,0.09	3.92
Female avoidance, Female trust, Male satisfaction	-0.05	-0.18,0.02	9.80
IE			
Direct effect	-0.45	-0.78,-0.14	88.24
Effects from Female anxiety → Male satisfaction			
Total effect	-0.09	-0.37,0.17	
Total IE	-0.02	-0.13,0.07	22.22
Female anxiety, Male trust, Male satisfaction IE	0.00	-0.10,0.08	0.00
Female anxiety, Female trust, Male satisfaction IE	-0.02	-0.09,0.00	22.22
Direct effect	-0.07	-0.03,0.16	77.78

Note. $N = 199$. IE = indirect effect; CI = confidence interval.

Table 3

Unstandardized K Parameter Estimates, Bootstrap Confidence Intervals, and Dyadic Patterns

<i>k</i> Parameters	Actor effects	<i>p</i>	Partner effects	<i>p</i>	Estimate and bootstrap CIs 95%	Possible dyadic patterns
k_1	aa1 = -0.31	.000	ap1 = -0.02	.403	$k_1 = 0.055$ [CI; - 0.362-0.526]	0
k_2	aa2 = -0.28	.000	ap2 = -0.26	.002	$k_2 = 0.935$ [CI; 0.287-2.683]	1
k_3	aa3 = -0.28	.001	ap3 = -0.00	.989	$k_3 = 0.002$ [CI; - 0.385-0.273]	0
k_4	aa4 = -0.12	.078	ap4 = -0.05	.788	$k_4 = 0.444$ [CI; - 1.043-3.347]	0, 0.5
k_5	ba1 = 0.88	.001	bp1 = 0.16	.246	$k_5 = 0.183$ [CI; - 0.086-0.735]	0, 0.5
k_6	ba2 = 0.74	.004	bp2 = 0.79	.004	$k_6 = 1.058$ [CI; 0.286-3.300]	0.5, 1

Note. $N = 199$. CI = confidence interval.

Table 4

Model Fit Indices

Models	df	χ^2	SRMR	RMSEA	TLI	CFI
Basic saturated APIM	0	0.000	0.000	0.000	1.00	1.00
Saturated APIM with k	0	0.000	0.000	0.000	1.00	1.00
$k_1@0; k_2@1; k_3@0; k_4@0; k_5@0; k_6@0.5$	6	5.099	0.023	0.000	1.013	1.00
$k_1@0; k_2@1; k_3@0; k_4@0.5; k_5@0; k_6@0.5$	6	4.453	0.019	0.000	1.022	1.00
$k_1@0; k_2@1; k_3@0; k_4@0.5; k_5@0.5; k_6@0.5$	6	4.405	0.019	0.000	1.023	1.00
$k_1@0; k_2@1; k_3@0; k_4@0.5; k_5@0.5; k_6@1$	6	2.291	0.013	0.000	1.053	1.00
$k_1@0; k_2@1; k_3@0; k_4@0.5; k_5@0; k_6@1$	6	1.426	0.011	0.000	1.065	1.00

Note. $N = 199$. Df = degrees of freedom, χ^2 = chi-square, SRMR = standardized root mean square residual, RMSEA = root mean square error of approximation, TLI = Tucker-Lewis index, CFI = comparative fit index.

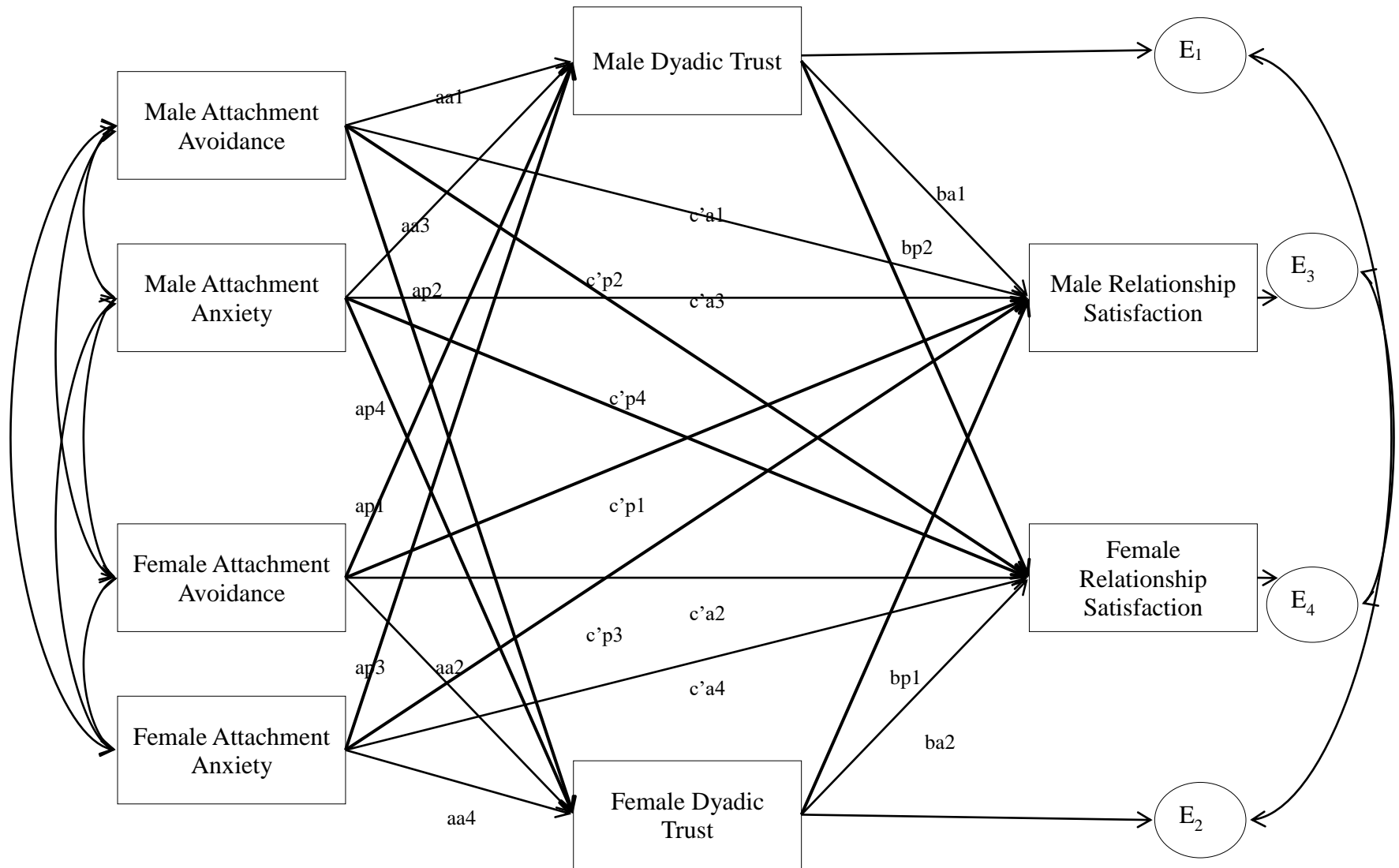


Figure 1. Structural equation model of the proposed actor-partner interdependence mediation model.

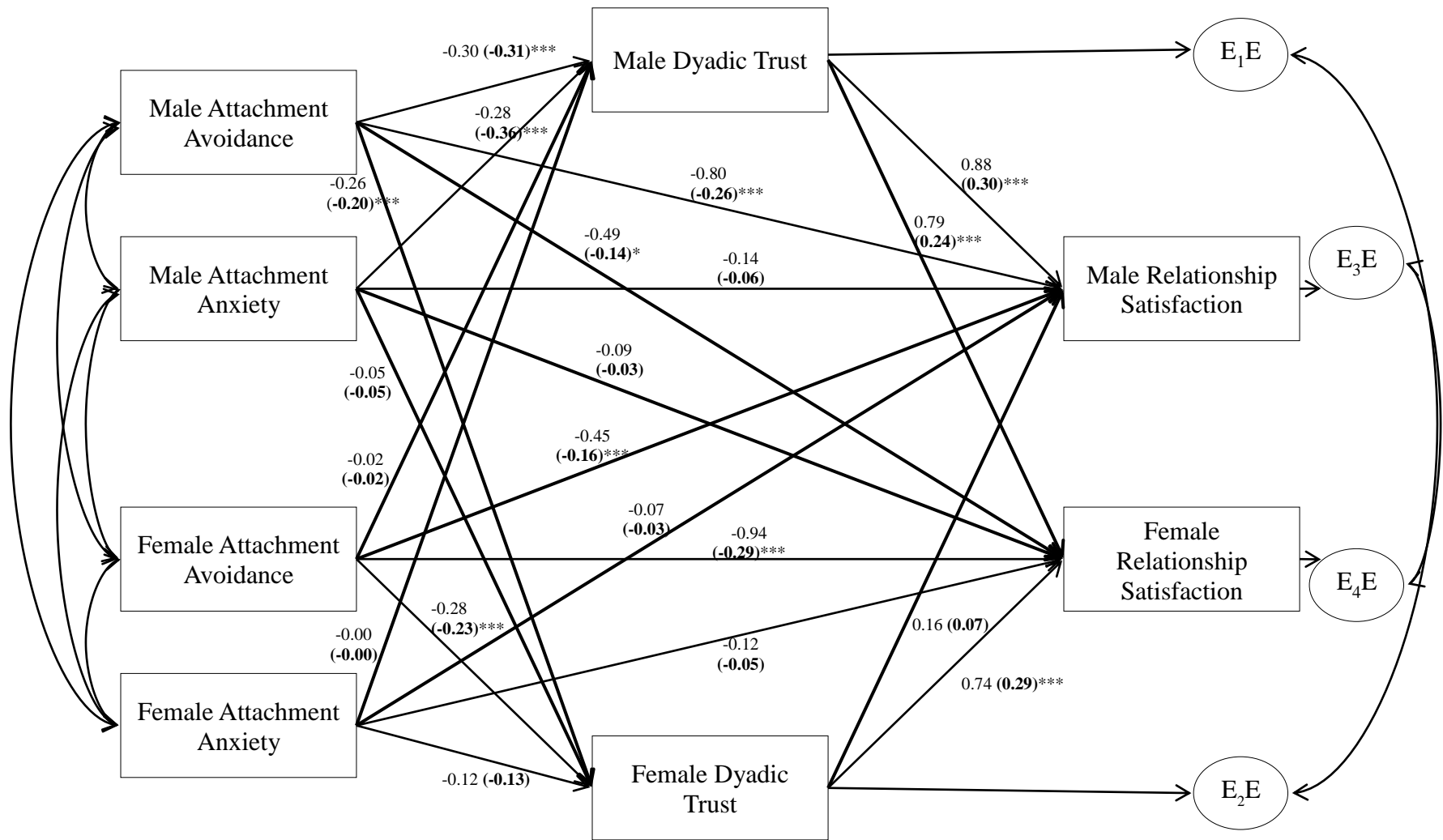


Figure 2. Unstandardized, standardized factor loadings and unstandardized structural coefficients for model parameters. * $p < .05$, *** $p < .001$

Chapter IV
General Discussion

General Discussion

Objectives, Summary of Findings, and Strengths

The present thesis aimed to examine how romantic attachment may be related to psychological distress and relationship dissatisfaction using a dyadic framework. The principal objective was to seek to understand the *mechanisms* through which romantic attachment is associated to the development of distress while testing reciprocal effects between romantic partners. Specifically, guided by attachment theory, the present thesis assessed how the views of self and of the other serve as indirect pathways to distress. The first main goal was to assess whether self-esteem served a mediating role in the relationship between romantic attachment and psychological distress within two distinct adult time periods (i.e., young adulthood and later adulthood). The second main goal was to assess whether dyadic trust served a mediating role in the relationship between romantic attachment and relationship dissatisfaction.

The first study was comprised of two separate studies, both of which aimed to assess a conceptual model within two different populations from distinct periods of adulthood, using a student sample in young adulthood and a sample of couples in later adulthood who are parents. Both studies investigated direct and indirect effects associating romantic attachment, self-esteem, and psychological distress. Results largely supported the proposed conceptual model, finding that, in general, low self-esteem did serve as a significant mediator of the relationship between insecure romantic attachment (i.e., attachment anxiety and attachment avoidance) and high psychological distress. Specifically, all proposed hypotheses were confirmed within our young adult student sample. Interestingly, gender did not have any effect on the overall model. Our second sample composed of couples in later adulthood who are parents, showed nuanced results pointing to the importance of using a dyadic lens when studying romantic attachment. Attachment anxiety had similar actor effects for men and women. Specifically, men high in

attachment anxiety were more likely to have lower self-esteem and, in turn, higher psychological distress; similarly, women high in attachment anxiety were more likely to have lower self-esteem and, in turn, higher psychological distress, but, interestingly, have partners with lower psychological distress. Additionally, high self-esteem in women helped explain the relationship between their own high attachment avoidance and their own lower psychological distress, but are more likely to have partners high in psychological distress. These findings suggest that although low self-esteem is a significant pathway linking insecure attachment and psychological distress, important gender and age differences exist in the presentation of these patterns. In particular, findings demonstrate that direct and indirect effects are strong for both men and women in young adulthood; whereas, in later adulthood high attachment anxiety in men and women seem to have a particularly detrimental effect on self-esteem and psychological distress. However, high attachment avoidance in women seems to have a positive effect on their self-esteem and psychological well-being. As to partner effects, findings show that men are negatively impacted by their female partner's high self-esteem, possibly feeling unneeded or unwanted by women's independence. In the same vein, men experience less distress when their anxious partners report lower self-esteem, again, possibly feeling more assurance in the relationship and feeling more needed and important in the eyes of their partner. This study, encompassing two independent studies, has important theoretical, methodological and statistical strengths including providing a comprehensive examination of the relationships between romantic attachment, self-esteem, and psychological distress. These strengths include using an attachment framework to guide hypotheses, utilizing rigorous sampling procedures (i.e., large samples of student population as well as community couples), and using an Actor-Partner Interpersonal Model with Structural Equation Modeling analyses to assess dyadic patterns with our couple sample. Investigating a

similar conceptual model within two distinct samples offers insights into differences that arise in different stages of adulthood. Additionally, the inclusion of a sample of couples in later adulthood who are parents allows for a thorough assessment of reciprocal impacts on partners, which provides rich and nuanced results in a difficult to recruit population.

As previously mentioned the second study of the present thesis examined the actor, partner and mediating effects between insecure romantic attachment, low dyadic trust, and relationship dissatisfaction within a large sample of heterosexual adult couples ranging from young to later adulthood. In general, results suggested that low dyadic trust did mediate the relationship between insecure romantic attachment and relationship dissatisfaction. However, results also showed notable differences regarding the effects of gender as it relates to attachment. Specifically, results showed that men high in attachment anxiety as well as those high in attachment avoidance were more likely to have lower trust, which not only affect their own level of dissatisfaction in the relationship, but also their partner's relationship dissatisfaction. Additionally, low levels of trust in women helped explain the relationship between high attachment avoidance in men and lower relationship satisfaction in women. These findings suggest that high attachment insecurity in men has negative effects on the levels of trust and relationship satisfaction in both partners of the couple, showing even greater impacts when men were high in attachment avoidance. Again, this study provides notable theoretical, methodological, and statistical strengths as it offers a comprehensive glance at the interaction between romantic attachment, dyadic trust, and relationship satisfaction in heterosexual couples. As such, the large sample of couples, a difficult to recruit population, was instrumental in testing a complex model while maintaining adequate power. The nuanced effects between partners in

long-term heterosexual relationships were also brought to light by the findings, allowing a detailed understanding of gendered effects within the couple.

Summary of Implications Across Studies

Collectively, these studies offer a better understanding of how variables stemming from the view of self and the view of other can help explain the development of intrapersonal and interpersonal distress within an attachment framework. These results may add to existing literature in the field and possibly contribute to clinical practice for assessing and treating psychological distress and relationship dissatisfaction. Furthermore, these studies implemented thorough research methodologies, which aimed to utilize diversified recruitment strategies for community samples and the most up-to-date statistical methods for testing couples in order to assure the quality of the data. Although these studies are not sequential in nature and do not necessarily inform one another, each help fill a gap in the literature, and when taken together they combine essential elements of attachment theory to answer important questions regarding personal and relational well-being.

When combining findings from both studies, important implications may be drawn. Specifically, when we contrast results from both studies, we find that insecure attachment orientations in men and women affect their respective partners in different ways within heterosexual relationships. In Study I, not only were differences according to gender uncovered, but also different patterns were highlighted in distinct age groups. Study I, which was composed of two separate studies (i.e., Study 1 and Study 2) testing a conceptual model, showed different effects within unique periods in adulthood (i.e., young adulthood and later adulthood). As such, when assessing the mediating role of self-esteem in the relationship between romantic attachment and psychological distress among young adults, our model helped explain distress for

both men and women, aligning with trends in the literature. Additionally, our model helped uncover specific differences in actor and partner effects in our sample of couples in later adulthood who are parents. As such, for both men and women, low self-esteem helped explain the relationship between attachment anxiety and their own high level of psychological distress, whereas attachment avoidance in women seemed to actually be related to higher self-esteem, and, in turn lower psychological distress. These findings show that attachment anxiety and attachment avoidance seem to have opposite effects, where only attachment anxiety has detrimental effects on psychological distress, while attachment avoidance seems to actually serve as a contributor to psychological well-being for women. As for partner effects, men seem to be negatively impacted by avoidant women's high self-esteem and similarly positively impacted by anxious women's low self-esteem. These findings imply that self-esteem affects men and women's psychological distress differently (i.e., contrast pattern), acting as both a positive and negative contributor depending on attachment orientation and gender.

Comparatively, findings in Study 2 also showed interesting trends pertaining to gender. When it came to the effects of attachment insecurity and trust, the presented model helped explain relationship dissatisfaction for both men and women. However, results suggested that high attachment insecurity in men, whether it be gender discordant or not, has a particular negative effect on the reported trust of both partners, which, in turn, negatively impacts relationship satisfaction for both partners. When comparing results from all studies, attachment insecurity and self-esteem are important factors to take into account to understand psychological distress in young adults. As for couples in later adulthood who are parents, attachment orientation and self-esteem affect themselves and their partners differently depending on gender showing contrast patterns (i.e., in the opposite direction), whereas men's attachment insecurity is

primarily central for understanding trust and relationship satisfaction for both men and women. Findings of the present thesis emphasize the importance of examining distinct adult age groups when studying romantic attachment. Furthermore, comparing results from both studies only further highlights the importance of using a dyadic lens when studying attachment given the richness of the gendered effects.

Findings from these studies uncovered how insecure attachment as well as view of self and of other may have significant impacts on not only psychological well-being but also relational well-being. These results can be utilized to guide and inform clinical practice. The present thesis aimed to better understand two of the foremost motives to seek out psychological services (Cepeda-Benito & Short, 1998; Halford, 2011). Examining how insecure romantic attachment in men and women can impact individuals' well-being differently may be seen as an essential component of assessment in clinical practice. Additionally, specifically targeting insecure attachment orientations and strategies throughout treatment could be central to increasing overall well-being in one's life. As such, findings from the present thesis may lend greater credence to utilizing an Emotion-Focused Therapy (EFT; Greenberg, 2002) approach in individual therapy when clients are seeking to increase their psychological well-being. Specifically, in EFT, emotion is viewed as a central component of the organization of the self and informs people on their underlying attachment needs and goals. Attachment security may be fostered, not only by a safe therapeutic relationship, but also through developing a greater level of self-esteem by helping individuals have a better awareness of and allowing the expression of one's internal experience. Identifying and validating one's own emotional experience and needs can create a greater sense of self as well as help restructure attachment orientations. In the same vein, Emotionally Focused Therapy for couples is now recognized as one of the most effective

approaches in aiding relationship distress (Wiebe & Johnson, 2016). Results from the present thesis also demonstrate how each partner of the relationship can influence one another's satisfaction in the relationship differently. Therefore, EFT could be even more effective in creating attachment security within the relationship since it specifically aims to make positions within insecure dynamics more clear and, in turn, restructure unsafe interactional cycles. Again, this thesis supports EFT's premise of encouraging partners to take emotional risks, be accessible and available when the other partner does so, and, consequentially, creating greater trust and security within the relationship.

Limitations and Directions for Future Research

Although this thesis offers important evidence supporting the fundamental role of romantic attachment in individuals' lives, limitations do exist that could be addressed in future research. First, certain restrictions in recruitment methods may limit the ability to generalize the present findings to the larger population. Thus, our young adult student sample was mainly homogenous, since it utilized a convenience sample of university students. The fact that all participants were recruited through psychology courses could bias results and limit comparability to other young adult students. The sample was also primarily composed of women who were currently in a relationship; this factor could also camouflage possible existing gender differences in the model since there may be less power to identify specific male effects. Moreover, the use of individual members of a couple rather than both partners does not allow testing an actor-partner mediational model, limiting the findings according to gender in the young adult student sample. As for the two other community samples, although great efforts were made to recruit large samples that were representative of community couples, the samples were still rather homogenous groups composed of highly educated adults of European descent. Study 2, which

assessed the sample of couples in later adulthood who are parents, also offered particular recruitment restrictions, since it was part of a larger longitudinal study on families from the community. It would be important in future research to also conduct similar studies with same-sex couples. Although existing research highlights similarities between same-sex and heterosexual couples (Gabbay & Lafontaine, 2017), group comparisons studies should be done in order to assess the presence of distinct phenomenon. For example, specific differences have been found between heterosexual and same-sex couples such as communication differences (i.e., using humour to reduce tension in same-sex couples) as well as differences in levels of monogamy (i.e., lower levels of monogamy in same-sex male couples (Gabbay & Lafontaine, 2017)). These unique realities could affect conceptual models by influencing levels of self-esteem and trust in relationships. Finally, although Study 1 tested a conceptual model within two distinct adult populations (i.e., young adulthood and couples in later adulthood), these two samples should not be directly compared since individuals were not paired or followed longitudinally. Studying participants as they progress through adulthood could allow the precise tracking of these developmental changes for attachment, trust, self-esteem, psychological distress, and relationship satisfaction.

Second, it is important to note that all of the present studies solely used self-report data, which may lead to specific bias that may threaten the validity of research findings. One example of self-report bias includes socially desirable responding, which constitutes the tendency for participants to present themselves in a favourable light. For example, partners may be inclined to increase valuations of self-esteem, trust in their partner or relationship satisfaction for social desirability reasons. Future research could utilize desirability questionnaires to control for these possible limitations. Moreover, shared method variance may actually inflate inferences about

correlational data (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Mono-method bias can be present in different ways. Specifically, in the present thesis, since respondents are providing information for the predictor and the criterion variables (i.e., actor effects), participants may try to maintain consistency by answering in a consistent and rational way. This may possibly highlight relationships that may not have been otherwise present. Although some of this bias is controlled by the fact that partner effects utilize both information from the respondent and the partner, future studies could utilize respondent and partner self-report when measuring each variable (see Orth 2013, for an example). Another possibility would be to use multi-method research designs to limit common method variance. For example, future studies could utilize semi-structured diagnostic interviews to assess psychological distress such as the Schedules for Clinical Assessment in Neuropsychiatry (SCAN; WHO, 1996).

Third, the use of correlational data limits the generalization of findings, since it does not allow inferences regarding causal mechanisms. This remains an important limit, specifically when testing meditational models that may suggest temporal precedence. Therefore, using a cross-sectional design for performing mediation analyses limits our ability to infer causality between predictor, mediator, and outcome variables and should be cautiously interpreted within the theoretical framework. Diverging approaches exist to control this limit and were consequentially used in the present thesis. For example, rival alternative models, even when using correlational data, may be tested (Thompson, Diamond, McWilliam, Snyder, & Snyder, 2005). Additionally, both studies followed a logic-base method, which utilizes existing theory and research to construct proposed models (Thompson et al., 2005). Although steps were taken to limit this bias, again, future studies should implement longitudinal research designs to securely assess change over time to best understand differences throughout adulthood.

Fourth, another limitation in the present thesis was that all data did not meet assumptions of normality and outliers were not eliminated from the analyses. Since transformation methods such as log or square root transformations can significantly limit the interpretation of the data (Kline, 2016), alternate methods were chosen to address these violated assumptions. As such, maximum likelihood with robust (MLR) standard errors with a robust test statistic for model evaluation as well as bootstrap methods were separately conducted in order to control for non-normal distributions.

Fifth, all studies used composite variables in the tested models, which does not account for measurement error. Although the present studies were limited by small sample sizes, using composite variables could lead to errors regarding the equality of constructs between romantic partners. Future studies could seek to assess conceptual actor-partner interdependence models with latent variables, which would allow the examination of measurement invariance of constructs across dyad members (Gareau, Fitzpatrick, Gaudreau, & Lafontaine, 2016).

Sixth, certain measures may have limited the validity of the findings. Specifically, the Self-Esteem Scale yielding low alpha reliability scores in both samples of Study I. Although measures were taken to increase reliability, such as eliminating a particularly problematic item for the sample of students in young adulthood, this demonstrates a limit to our findings for the conceptual model in Study I. Future studies could again use factor analyses to reduce these biases and measurement errors. Also, future research could possibly use other measures of relationship satisfaction such as the Perceived Relationship Quality Components (PRQC; Fletcher, Simpson, & Thomas, 2000) inventory, which assesses satisfaction as well as other key factors that contribute to overall relationship quality.

Finally, the present thesis stems from strong theoretical and empirical data and seeks to fill certain gaps in the literature by assessing parsimonious conceptual dyadic models. Even though this serves as a distinct way to assess view of self and view of other that are rooted in attachment theory, future studies could specifically find methodological approaches that capture an accurate assessment of internal working models and integrate these into the proposed conceptual models. Also, the utilization of clinical research models could target the evaluation of changes in psychological and relational well-being when attachment security and view of self and view of other are addressed in treatment, such as through Emotionally-Focused Therapeutic approaches (Greenberg, 2002; Johnson, 2004).

Conclusion

In conclusion, the present thesis adds to the growing body of work on romantic attachment by specifically looking at mechanisms through which attachment insecurity may be associated to intrapersonal and interpersonal distress. Altogether, these studies may serve to inform future research designs to better understand the impacts romantic partners may have on one another. Additionally, these studies could inform particular areas of clinical importance by highlighting the respective contributive effects of attachment insecurity, self-esteem, and dyadic trust on the overall well-being of individuals in their personal and romantic life. Unique findings regarding age, gender as well as partner effects may also influence clinicians to be attentive to other important factors of diversity. Understanding how attachment orientations may affect individuals differently throughout the stages of adulthood are essential guiding posts for both researchers and clinicians. The present thesis sheds light on how attachment insecurity may be more detrimental in young adulthood for both sexes. Additionally, the present studies also highlight the negative impact of gender discordant attachment insecurity on psychological

distress for men in later adulthood as well as the negative impact men's attachment insecurity may have on relationship dissatisfaction for both sexes. In sum, the present thesis combines theory and research to parsimoniously conceptualize the pathways stemming from attachment to psychological and relational distress and may serve as a stepping stone for future research in the field

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Appendix A: University of Ottawa Health Science and Science Research Ethics Board

Ethics Approval Certificate for Chapter II –Study 1

File Number: H08-14-03

Date (mm/dd/yyyy): 09/08/2014



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://www.research.uottawa.ca/ethics/forms.html>.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://www.research.uottawa.ca/ethics/forms.html>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Appendix B: English and French information sheet Chapter II-Study 1

Title: The Influence of Romantic Relationships on Negative Coping Strategies

Dear Participant,

Thank you for choosing to participate in our research using the Integrated System for Participation in Research (ISPR). This project is being conducted by Dr. Marie-France Lafontaine and Dr. Jean-François Bureau at the University of Ottawa, and has been approved by the University of Ottawa Research Ethics Board.

Your participation will contribute to our knowledge of the influences of romantic relationships in predicting different coping strategies in young adults.

Participation in the study will include the completion of these online questionnaires using Survey Monkey. Topics addressed by the questionnaires include your background information, your caregiving behaviours in your romantic relationship, your relationship adjustment, your coping in your relationship, your past and/or current self-injuring behaviors, your risk-taking behaviors, your trust in your relationship, your empathy in your relationship, your romantic intimacy, your sexual satisfaction and dimensions pertaining to your sexuality, your psychological functioning, your self-esteem, your romantic attachment style, your childhood experiences, and your emotion regulation. It is important that these questionnaires express only your opinion; please respond independently, without assistance from others. Please note that sensitive questions about exposure to childhood abuse will be asked.

Completion of the questionnaires will take approximately 120 minutes. When responding to the questions it is important to answer as honestly and accurately as possible. We also encourage you to not leave items unanswered; instead we ask that you select the response that most closely describes your thoughts and feelings about the particular question. However, you are not required to answer any items with which you are uncomfortable. Your participation in this research is entirely voluntary, and you are free to withdraw from answering the questionnaires at any time during your participation. By beginning to complete the following questionnaires, you are implying your consent to participate in the study. Once your responses have been submitted, you will be unable to withdraw from the study, as your responses are anonymous and we have no way of determining which answers are yours to remove.

We would like to remind you that this survey will take 120 minutes to complete. We suggest that you work at a time when you will not be distracted. However, should you be interrupted, know that you can close your browser and finish completing your survey at another time by using the link that was provided to you in the description of the study, in the ISPR website. Your answers will be saved until you submit your survey, at the end.

If someone else is going to use the same computer to participate (partner, friend, family, etc.), be sure you have submitted your survey beforehand. This way, a new survey will appear, and your answers will remain private.

Responses on all questionnaires will be kept anonymous. The data uploaded from Survey Monkey will be saved in password protected computer files on the computers of the principal researcher. The

researchers cannot guarantee the confidentiality of the data collected via Survey Monkey given that it is an American-based software and subject to the Patriot Act. No hard copies of the data will be created. Data will be stored under the 5-digit code assigned to you by ISPR, and no individual identifiers (i.e., student number, email address, IP address) will be linked with your data. The data from all participants will be kept for a period of 10 years after the study's completion in 2015; all saved files of the data will be deleted in a secure manner from the computer at this time. The electronic data saved on Survey Monkey will be deleted from the Survey Monkey server at the end of each University semester, after the data has been uploaded from the server.

You may experience some discomfort when responding to select questions. These discomforts are likely to be small and will likely last no more than a few minutes. Of course, you are not obligated to answer any specific questions if you do not feel comfortable doing so.

As compensation for your time, you will be awarded two credit points toward your final course grade after submission of the online questionnaires (PSY 1101 and PSY 1501 only).

Should you have any questions or concerns regarding the study arise, please feel free to contact us at the emails and/or phone numbers listed below. **Should you wish to obtain assistance regarding any issues addressed in the questionnaires you may contact the Ottawa Distress Center (613-238-3311) or the Centre for Psychological Services at the University of Ottawa (613-562-5289). You may also refer to www.mentalhealth.ca for a comprehensive list of mental health resources available in the Ottawa region.** For any further information regarding your rights as a research participant please contact the Protocol Officer for Ethics in Research, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

Please print a copy of this letter for your records before proceeding.

Thank you for your participation in our research.

Titre : L'influence des relations amoureuses sur les stratégies d'adaptation négatives

Cher/Chère participant(e)s,

Merci d'avoir accepté de participer à cette recherche par le biais du Système intégré de participation à la recherche (SIPR). Ce projet est dirigé par Dre Marie-France Lafontaine et Dr Jean-François Bureau de l'Université d'Ottawa. Ce projet a été approuvé par le Comité d'éthique de la recherche de l'Université d'Ottawa. S'il-vous-plaît noté que cette étude sera uniquement en anglais. On vous invite à participer à la cette étude si vous êtes confortable à répondre aux questionnaires dans la langue anglaise.

Cette étude contribuera aux connaissances portant sur l'influence des relations amoureuses dans l'explication de différentes stratégies d'adaptation chez les jeunes adultes.

Votre participation implique de remplir des questionnaires en ligne par l'entremise de Survey Monkey. Plus précisément, les sujets abordés dans ces questionnaires incluent vos renseignements généraux, vos comportements d'offre de soutien dans votre relation amoureuse, votre ajustement dyadique, vos stratégies d'adaptation dyadique, vos comportements d'automutilation passés et/ou actuels, vos comportements de prise de risques, votre niveau de confiance et votre empathie au sein de votre relation, votre intimité amoureuse, votre satisfaction sexuelle ainsi que des dimensions portant sur votre sexualité, votre fonctionnement psychologique, votre estime de soi, votre modèle d'attachement amoureux, vos expériences lors de l'enfance et votre régulation des émotions. Il est important que ces questionnaires reflètent seulement votre opinion; veuillez répondre aux questions individuellement, sans consulter quelqu'un de votre entourage. Veuillez noter que des questions au contenu sensible, tel que l'exposition à l'abus durant l'enfance vous seront posées.

La complétion des questionnaires prendra environ 120 minutes. Nous vous demandons de remplir votre questionnaire en répondant à toutes les questions, sans exception, aussi honnêtement et précisément que possible, sans passer trop de temps à réfléchir. Nous vous encourageons à ne pas laisser de questions sans réponse; au lieu de cela, nous vous demandons de sélectionner la réponse qui décrit le mieux vos pensées et vos sentiments au sujet de la question particulière. Cependant, vous n'êtes pas obligés de répondre aux questions avec lesquelles vous n'êtes pas à l'aise. Votre participation à cette recherche est entièrement volontaire et vous êtes libres de cesser de répondre aux questionnaires à n'importe quel moment. En commençant à répondre aux questionnaires, vous consentez implicitement à participer à cette étude. Dès que vos réponses seront soumises, vous ne pourrez plus vous retirer de l'étude puisque vos réponses sont anonymes et que nous ne sommes pas en mesure de déterminer qu'elles sont vos réponses.

Nous vous rappelons que vous devriez pouvoir répondre aux questionnaires à l'intérieur d'une période d'environ 120 minutes. Nous vous suggérons d'y travailler à un moment où vous ne serez pas distraits. Par contre, si vous êtes interrompus, vous pouvez fermer le serveur et remplir les questionnaires à un autre moment en utilisant le lien indiqué dans la description de l'étude sur le site du SIPR. Vos réponses seront sauvegardées jusqu'à ce que vous ayez soumis tous les questionnaires.

Si quelqu'un d'autre doit utiliser cet ordinateur afin de participer à l'étude (partenaire, amis, famille, etc.), assurez-vous d'avoir soumis les questionnaires avant. De cette façon, une copie vierge des questionnaires apparaîtra et vos réponses resteront confidentielles.

Les réponses de tous les questionnaires seront gardées confidentielles et anonymes. Les données téléchargées à partir de Survey Monkey seront sauvegardées dans des fichiers protégés sur l'ordinateur du chercheur principal. Les chercheurs ne peuvent pas assurer la confidentialité des données collectées sur Survey Monkey puisque celui-ci est un logiciel Américain et assujetti à la loi Patriot Act. Aucune copie papier des données ne sera créée. Les données seront appariées à votre code de 5 chiffres qui vous a été assigné par le SIPR et aucun identifiant personnel (numéro étudiant, adresse électronique, adresse IP) ne sera relié à vos données. Les données de tous les participants seront gardées pour une période de 10 ans après la complétion de l'étude en 2015. Tous les fichiers sauvegardés des données seront ensuite détruits de façon sécuritaire de l'ordinateur. Les données électroniques sauvegardées sur Survey Monkey seront effacées du serveur à chaque fin de session universitaire, après que les données aient été téléchargées du serveur.

Vous pouvez vivre de l'inconfort lorsque vous répondez à certaines questions. Par contre, ces inconforts seront probablement minimes et ne dureront pas plus que quelques minutes. Bien sûr, vous n'êtes pas obligé de répondre des questions spécifiques si vous n'êtes pas confortable à le faire.

En compensation de votre temps, nous ajouterons deux points à votre note de cours finale lorsque vous aurez soumis les questionnaires en ligne (seulement PSY 1101 et PSY 1501).

Si vous avez des questions ou des inquiétudes concernant l'étude, veuillez nous contacter par courriel et/ou par téléphone aux numéros énumérés ci-dessous. **Si vous souhaitez obtenir de l'aide concernant certains problèmes abordés dans les questionnaires, vous pouvez contacter le Centre de détresse d'Ottawa (613-238-3311) ou le Centre des services psychologiques de l'Université d'Ottawa (613-562-5289). Vous pouvez aussi consulter le www.esantementale.ca pour une liste détaillée des ressources disponibles sur la santé mentale dans la région d'Ottawa.** Pour de plus amples informations concernant vos droits en tant que participant(e) à une recherche, veuillez contacter le Responsable de la déontologie en recherche au 550 rue Cumberland, pièce 154, (613) 562-5387 ou ethics@uottawa.ca.

Veuillez imprimer une copie de cette lettre pour vos dossiers avant de procéder.

Nous vous remercions de votre participation à cette recherche.

Sincèrement,

Appendix C: List of Available Resources Chapter II-Study 1

Crisis Call Centers

Ottawa Distress Centre
(www.dcottawa.on.ca)
613-238-3311
613-722-6914
24-hr general crisis intervention.

Mental Health Crisis Line
(www.crisisline.ca)
613-722-6914 (in Ottawa)
1-866-996-0991
24-hr mental health crisis line serving individuals 16 years and older.

Ottawa Rape Crisis Centre Crisis Line
(www.orcc.net)
613-562-2333
24-hr crisis line for women experiencing current or past sexual abuse and/or assault, including childhood sexual abuse and ritual abuse.

Tel-Aide Outaouais
(www.tel-aide-outaouais.org)
613-741-6433 (Ottawa/Gatineau)
1-800-567-9699(rural)
24-hr crisis line for Francophones living in Ottawa/Gatineau region. Services available to all ages.

Le Centre d'Aide
(www.pierre-janet.qc.ca/centre24_7.htm)
819-595-9999
24-hr French distress line for Outaouais region.

Mental Health & Social Service Resources

www.ementalhealth.ca
A comprehensive online list of mental health resources available in the Ottawa-Carleton region.

Centre for Psychological Services (University of Ottawa)

613-562-5289

Offers individual therapy for adolescents and adults, couple therapy and child and family services.

University of Ottawa Student Academic Success Counselling Services
(www.sass.uottawa.ca/personal)
613-562-5800

Offers personal counselling regarding topics such as depression, anxiety, stress, self-esteem, relationships, and sexual harassment to students registered at the University of Ottawa.

Sandy Hill Community Health Centre

(www.sandyhillchc.on.ca/)

613-789-1500

Offers free individual, couple, marital and family counselling, and crisis intervention to residents of Sandy Hill.

Somerset West Community Health Centre

(www.swchc.on.ca)

613-238-8210

Offers free crisis intervention, individual counselling, women's counselling, and educational and support groups.

Centretown Community Health Centre

(www.centretownchc.org)

613-233-4443

Offers free counselling and social support services to residents of Old Ottawa South, the Glebe, and Centretown.

Family Services Ottawa

(www.familyservicesottawa.org)

613-725-3601

Offers individual, family and couples counselling, as well as support groups for women survivors of abuse.

Ottawa Academy of Psychologists

(www.ottawa-psychologists.org)

613-235-2529

Comprehensive list of registered psychologists and their specialties in the Ottawa area

Physical/Partner Abuse Support & Counselling Resources**Eastern Ottawa Resource Centre**

(www.eorc-gloucester.ca)

613-745-4818 (crisis)

613-741-6025 (business)

Women and relationship violence program, information, support, crisis and long-term counselling and referrals.

Assaulted Women's Help Line

(www.awhl.org)

1-866-863-0511 (English)

1-877-336-2433 (French)

24-hour crisis line for women in abusive situations.

Appendix D: Sociodemographic Questionnaire used in Chapter II-Study 1

SOCIO DEMOGRAPHIC INFORMATION (SD)

The following questionnaire involves gathering information with respect to your socio demographic background. For each question, please circle the number beside the appropriate answer.

SD1. Indicate your sex.

1 = Male

2 = Female

3= You don't have an option
that applies to me.

I identify as (please specify)

_____.

SD2. What is your age, in years and months?

_____ years and _____ months

SD3a. What is your racial or ethnic background (circle as many as apply)?

1 = White/Caucasian

6 = Middle Eastern

2 = Black

7 = Native Canadian/First
nations/Métis

3 = Asian

8 = Other, specify (SD3b):

4 = Latino or Hispanic

5 = Pacific Islander

SD4a. How many years have you lived in Canada?

1 = All my life

2 = Number of years _____ and
months: _____ (SD4b)

SD5. Indicate the highest educational degree you have received.

1 = Primary school

3 = College

2 = High school

4 = University

SD6a. What is your main daily occupation?

1 = Blue collar (construction,
factory worker, manual work,
etc.)

3 = Business owner or self-employed

4 = Unemployed

5 = Student

2 = White collar (administrator,
lawyer, director, office worker,
salesperson, etc.)

6 = Homemaker

7 = Other, specify: _____ (SD6b)

SD7. What is your monthly personal gross revenue (before tax and deductions)?

SD8. How often (do you/does your family) have problems paying for basic necessities (like food, clothing or rent)?

- 1 = Never
2 = Sometimes
3 = Often
4 = Don't know

SD9. As a child and adolescent, did you live primarily with :

- 1 = Both biological parents in the same home
2 = Both biological parents in separate homes (i.e., joint custody)
3 = One parent with regular access to other parent
4 = One parent with little or no access to other parent
5 = Adoptive parents
6 = Relatives (e.g. grand-parents)
7 = Foster parents/group home

SD11a. Where do you currently live?

- 1 = At home with my parents (**Skip to question SD17**)
2 = In rented accommodations with roommates
3 = In rented accommodations with a romantic partner
4 = In a rented accommodation by yourself
5 = In a university residence
6 = Other, please specify _____ (SD11b)

In the past year, have you consulted a mental health professional (psychologist, social worker, psychiatrist, etc.)...

SD26. ...alone?

- 1 = Yes
2 = No (**skip to question SD28**)

SD27. Duration of services (e.g., 1 year and 2 months):

_____ years _____ months

SD28. ...with your partner?

- 1 = Yes
2 = No (**skip to question SD30**)
3 = Not applicable (**skip to question SD30**)

SD29. Duration of services:

_____ years _____ months

SD30. ...with your family?

- 1 = Yes
2 = No (**skip to question SD32**)

SD31. Duration of services:

_____ years _____ months

SD32. Are you *currently* seeing a mental health professional?

1 = Yes

2 = No

SD33. Have you ever needed help from one or more Centres for partners presenting violent behaviors or one or more shelters for domestic violence victims?

1 = Yes

2 = No

SD34. At the present time, what sexual orientation would best describe you?

1 = Homosexual (gay or lesbian)

3 = Bisexual

2 = Heterosexual

4 = Uncertain

SD35. Are you *currently* involved in a romantic relationship?

1 = Yes

2 = No

If you are not in a romantic relationship at the present time, please go to the next questionnaire.

SD36. If your answer to the previous question was « yes », please specify which type of relationship best describes your current relationship.

1 = Homosexual (gay man or lesbian)

2 = Heterosexual

SD37. How long have you been in the current relationship, in years and months?

_____ years and _____ months

SD38. Are you *currently* living with your romantic partner?

1 = Yes

2 = No (**skip to question SD40a**)

SD39. If your answer to the previous question was « yes », how long have you been living with your partner, in years and months?

_____ years and _____ months

SD40a. What is your marital status?

1 = Married (**go to SD40b**)

2 = Common law

3 = Separated

4 = Divorced

5 = Single

6 = Widowed

SD40b. How long have you been married to your partner?

_____ years and _____ months

SD42. Have you and your current partner separated in the past 12 months because of conflicts in the relationship?

1 = Yes

2 = No (**skip to question SD44**)

SD43. If your answer to the previous question was « yes », evaluate the consequences of this separation on your relationship when the event occurred.

1 = extremely harmful

5 = slightly beneficial

2 = moderately harmful 6 = moderately beneficial
 3 = slightly harmful 7 = extremely beneficial
 4 = no consequence

In the past 12 months, have you or your partner experienced the following events? If your answer is “yes”, please indicate the person who experienced the event. Also, for each event experienced, evaluate its consequences on your romantic relationship when it occurred using the following scale.

Extremely harmful	Moderately harmful	Slightly harmful	No consequence	Slightly beneficial	Moderately beneficial	Extremely beneficial
1	2	3	4	5	6	7

				Consequences on your relationship							
SD44.	Pregnancy	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
SD45.	Miscarriage	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
SD46.	Abortion	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
SD47.	Our Marriage	1 = Yes	2 = No								
					1	2	3	4	5	6	7
SD48.	Our Engagement	1 = Yes	2 = No								
					1	2	3	4	5	6	7
SD49.	Serious illness or accident	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
				Children ____							
				Other ____							

SD50.	An affair	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
SD51.	Previous Relationship Divorce	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
SD52.	Death of a relative or close friend	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							

Extremely harmful	Moderately harmful	Slightly harmful	No consequence	Slightly beneficial	Moderately beneficial	Extremely beneficial
1	2	3	4	5	6	7

					Consequences on your relationship						
SD53.	Mental Health Difficulties	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
				Children ____							
				Other ____							
SD54.	Physical Health Difficulties	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							
				Children ____							
				Other ____							
SD55.	Chronic Pain	1 = Yes	2 = No								
				Me ____	1	2	3	4	5	6	7
				My partner ____							

SD56. Other major event in past 12 months?

1 = Yes 2 = No

Me ____ 1 2 3 4 5 6 7

My partner ____

Children ____

Other ____

Appendix E: English and French information sheet Chapter II-Study 2

Information Sheet for Parents**Longitudinal exploration of family systems dynamic and child social adaptation in early school years: The role of father-child, mother-child and parents relationships**

Investigator: Jean-Francois Bureau, Professor, School of Psychology, University of Ottawa

Phone Number: 613-562-5800 (4495)

Email address: lreecare@uottawa.ca

Dear Parents,

You and your child are, once again, invited to take part in the continuation of the research study that is being conducted by researchers from the University of Ottawa and funded by the Social Sciences and Humanities Research Council of Canada.

Purpose of this study

In the current study, we want to follow-up with you and your family roughly four years after your last visit at the CARElab. We would like to explore the dynamics within various family systems (father-child and mother-child relationships; parent-child triad; co-parental relationship; couple relationship; sibling relationship) and how they relate to children's social adaptation in middle childhood within a longitudinal framework. This study also looks at the quality of the interactions of these various family systems in different contexts such as the home setting, school setting and lab setting.

In order to fully understand the contributions of family dynamics on children's development, we need to also take into account the interconnections of the different relationships involved. It is believed that this research will provide a better understanding of the contribution of family interactions to child social adaptation in early school years.

You are free to choose to participate or not participate in the second phase of this study.

Procedures

For this study, you and your child will be asked to participate in 3 study sessions. These 3 sessions will be completed within a 6 month time period. Below you will find a detailed explanation of what you will be asked to do at each of these sessions.

Session 1 (Home Visit):

For Session 1, you will be contacted by telephone or email by a Research Assistant (RA). Session 1 will take approximately an hour and a half to complete and will be audio- and video-recorded. The RA will schedule a convenient time for 2 RAs to videotape your family in their home, during mealtime (lunch time or dinner time). The mealtime will be followed by a brief family board game. Then, you and your

partner as well as your child will be asked to interact as a group of three for 15 minutes. After these tasks, you and your partner will participate in a 15-minute videotaped discussion on a topic that is a source of disagreement in your relationship while your child will play a game (videotaped) with his/her siblings (or alone, if no siblings) for a period of 10 minutes. Finally, you and your partner will both be asked to complete a questionnaire on your parenting stress.

During the home visit, written consent to contact the child's teacher will be requested from both parents. Then a research assistant will contact teachers by phone or email and, in case of verbal agreement, will send a questionnaire package (30 min.) to be returned to our team by mail. Teachers will report on child social adaptation and academic performance.

Session 2a (Questionnaires)

Following Session 1 (Home Visit), a RA will send you a link to complete online questionnaires from the comfort of your home (paper questionnaire packages are also available). Session 2a will take approximately two hours to complete. These questionnaires ask general information about your family as well as questions about your couple relationship such as your relationship satisfaction, your self-esteem, and your trust in your romantic relationship.

Session 3 (Lab Visits):

You and your child's other parent will complete Session 3 at different times. One of you will complete Session 3 a month after Session 1 (Home Visit), and the other parent will complete Session 3, approximately 3 months after your child completes Session 3 for the first time. Session 3 will take approximately 2 hours to complete and will be audio- and video-recorded.

For Session 3, you and your child will be invited to the same research lab at the University of Ottawa. To begin the session, you will be asked to engage in a 5 minute free play interaction with your child.

Following the free play interaction, you and your child will complete a separation-reunion procedure. During the separation, you and your child will complete different tasks in two different rooms.

You will participate in an hour long interview about your childhood and your relationship with your parents. At the same time, the RA will administer a brief measure of your child's vocabulary, which will take 15 to 20 minutes. Please note that this activity will only occur during the first of the two lab sessions, and not for both. After, your child will complete a task with the RA that requires him/her to develop some stories using doll plays. Using the dolls, the RA will tell your child the beginnings of 6 different stories. Following each beginning, your child will be asked to continue and complete the stories using the dolls. This task will take approximately 30 minutes to complete. After the doll-play task, your child will complete a self-esteem assessment and will participate in a 15-minute interactive computer task on psychological well-being. The self-esteem and the psychological well-being tasks will be replaced by self-reports of family (computer task) and sibling relationships in the second visit.

Following the interview, you will be reunited with your child. A snack will be provided for you and your child. You and your child will then participate in an emotional dialogue procedure where we would like for you and your child to remember a time when he/she felt a specific emotion and talk about what happened. This will be followed by a 2-minute playful interaction where you will be asked to think about

what you do at home to make your child laugh. You will be asked to do this activity or action for 2 minutes with your child.

Session 2b (Questionnaires):

Following Session 3 (Lab Visit), a RA will send you another link to complete online questionnaires from the comfort of your home (paper questionnaire packages are also available). Session 2b will take approximately an hour to complete. These questionnaires ask about your well-being, your co-parenting relationship, your child's behaviour and your children's relationship (sibling relationship - if applicable).

Participant description

Over the last four years, 160 preschool children and their parents participated in the first phase of this study. All families will be invited to participate in phase 2 (the proposed project) of the study now that the children are between the ages of 7 and 9.

Are there any risks to participating in the research?

You may feel uncomfortable eating your meal in front of a video camera or inviting the RAs into your home. You may experience some discomfort during participation in the filmed discussion task. You may also feel uncomfortable answering some questions in the lab interview. Your child may feel uncomfortable with the stories that are part of the doll-play task or in answering questions that are part of the interactive computer task. The separation-reunion procedure and the emotional dialogue procedure could make you and/or your child emotionally uncomfortable. You may also feel uncomfortable answering some questions in the questionnaires. All of the discomforts that are a part of this study are likely to be small and are likely to last no more than a few minutes. If you and/or your child are too uncomfortable with any of the tasks or procedures that are a part of this study, you may choose not to complete the procedure(s) or withdraw from the study.

Are there any benefits to participating in the research?

You and your child may not directly benefit from this research. However, it is hoped that this study will help researchers and parents better understand the contribution of family interactions to child social adaptation in middle childhood.

Compensation

If you choose to participate in this study, you will be given \$20 for the Home Visit and 20\$ for each Lab Visit that you attend and 10\$ per online questionnaire session (2 sessions for each parent). If you do not complete or withdraw from a session you will still be given the corresponding amount. This money should cover any expenses that you may have because of the study (i.e. gas, child care). Also, for participating in this study, your child will receive a toy from our treasure chest after each lab session.

Withdrawing from the study

If you decide not to take part in this study, that is alright. If you or your child decide to take part, but change your minds at any time, that is fine too. If you choose to withdraw, you still have the right to decide if the videos or the questionnaire data (up to that point) may be used for the study and/or training purposes.

Limits of confidentiality

You and your child's personal information will be kept strictly confidential, except as required or permitted by law. If the Research Assistants believe your child is being abused or neglected, they will notify the principal investigator and the Children's Aid Society will be contacted, as required by law.

You and your child will be assigned a number. You and your child's interactions and questionnaire results will be recorded under this number and not under you or your child's name.

Your personal information and the data for this study will be kept for 10 years. After 10 years this information and data will be destroyed. All information and data will be kept in a locked filing cabinet and password protected computer in the School of Psychology at the University of Ottawa. Only the investigators, research assistants, and graduate students working on the project will have access to this data.

The results from this study may be used for training purposes. You and your child's names will not be identified in these training sessions.

If you wish, you can receive a summary of the study's results. You will be provided with this summary at the conclusion of the study.

Please feel free to contact Jean-François Bureau at (613) 562-5800 (ext. 4484) if you have any questions about this research study. If you would like to participate in this research study please contact the CARE lab at the University of Ottawa by telephone at (613) 562-5800 (ext.4495) or by email lreecare@uottawa.ca

Thank you for taking the time to consider this second phase of the research study.

Sincerely,

Jean-Francois Bureau

Lettre d'information pour les parents

Exploration longitudinale de la dynamique des systèmes familiaux et de l'adaptation sociale des enfants au cours des premières années scolaires : le rôle des relations père-enfant, des relations mère-enfant et des relations parentales.

Chercheur: Jean-Francois Bureau, Professeur, École de psychologie, Université d'Ottawa

Numéro de téléphone: 613-562-5800 (4495)

Courriel: lreecare@uottawa.ca

Chers parents,

Votre enfant et vous êtes invité(e)s, encore une fois, à participer à la seconde phase de l'étude conduite par des chercheurs de l'Université d'Ottawa et financée par le Conseil de recherches en sciences humaines du Canada.

Quel est le sujet de l'étude?

Dans la présente étude, nous voulons faire un suivi avec vous et votre famille près de quatre ans après votre dernière visite au CARElab. Nous aimerions explorer les dynamiques des différents systèmes familiaux (les relations père-enfant et mère-enfant; la triade parents-enfant; la relation co-parentale; les relations de couple; les relations au sein de la fratrie) et comment ils sont associés à l'adaptation sociale des enfants durant la période scolaire au sein d'un cadre longitudinal. Cette étude porte aussi sur la qualité des interactions de ces divers systèmes familiaux dans différents contextes tels qu'à la maison, à l'école ou au laboratoire.

Afin de mieux saisir les contributions des dynamiques familiales sur le développement des enfants, il est également important de considérer les interactions entre les différentes relations impliquées. Nous croyons que cette recherche aidera à mieux comprendre la contribution des interactions familiales sur l'adaptation des enfants lors des premières années scolaires.

Vous êtes libre de participer ou de ne pas participer à la seconde phase de cette étude.

Procédure

Pour cette étude, votre enfant et vous serez invité(e)s à participer à trois sessions. Ces trois sessions se dérouleront à l'intérieur d'une période de 6 mois. Ci-dessous, vous trouverez une description détaillée de chacune de ces trois sessions.

Session 1 (visite à la maison):

Pour la première session, un(e) assistant(e) de recherche (AR) communiquera avec vous par téléphone ou par courriel. La première session sera d'une durée d'environ une heure et demie et la session sera filmée et enregistrée. L'AR planifiera une visite selon vos disponibilités afin que deux ARs viennent filmer votre famille lors d'un repas à votre domicile (lors du dîner ou du souper). Le repas sera suivi d'une courte

période où on demandera à votre famille de jouer à un jeu de société en famille. Ensuite, votre conjoint(e) et vous ainsi que votre enfant devrez interagir ensemble durant une période de 15 minutes. Après ces tâches, votre conjoint(e) et vous allez participer à une discussion filmée où on vous demandera de discuter d'un sujet qui est source de désaccord dans votre relation alors que pendant ce temps, votre enfant jouera à un jeu (filmé) avec son (ses) frère(s) et/ou sa (ses) sœur(s) (ou seul(e) si votre enfant n'a pas de frère(s) ou de sœur(s)) durant une période de 10 minutes. Finalement, votre conjoint(e) et vous devrez chacun compléter un questionnaire sur votre stress parental.

Lors de la visite à la maison, le consentement écrit des deux parents sera demandé afin de donner la permission aux ARs de communiquer avec l'enseignant(e) de l'enfant. L'AR communiquera ensuite par téléphone ou par courriel avec les enseignant(e)s et, en cas d'accord verbal, enverra une série de questionnaires (30 minutes) qui devra être retournés aux chercheurs par courrier. Les questionnaires porteront sur l'adaptation sociale des enfants et leur performance académique.

Session 2a (questionnaires) :

Après la première session (visite à la maison), l'AR vous enverra un lien électronique afin que vous complétiez des questionnaires en-ligne dans le confort de votre maison (ensemble de questionnaires format papier sont également disponibles). La complétion des questionnaires lors de la session 2a sera d'une durée d'environ deux heures. Ces questionnaires porteront sur des renseignements généraux sur votre famille ainsi que sur votre relation de couple telle que votre satisfaction par rapport à votre relation, votre estime de soi et votre confiance quant à votre relation romantique.

Session 3 (visites au laboratoire) :

Votre conjoint(e) et vous allez compléter la troisième session à des moments différents. L'un de vous complètera la troisième session un mois après la première session (visite à la maison) et l'autre parent complètera la troisième session environ 3 mois après que votre enfant ait complété la troisième session pour la première fois. La troisième session sera d'une durée approximative de 2 heures et elle sera filmée et enregistrée.

Pour la troisième session, votre enfant et vous serez invité(e)s au même laboratoire de recherche à l'université d'Ottawa. Au début, nous vous demanderons de participer à une session de jeu libre avec votre enfant durant une période de 5 minutes.

À la suite de cette interaction, votre enfant et vous allez compléter une procédure de séparation-réunion. Lors de la séparation, votre enfant et vous allez participer à différentes tâches dans deux différentes pièces.

Vous participerez à une entrevue d'une heure au sujet de votre enfance et de votre relation avec vos parents. Pendant ce temps, l'AR va administrer une brève mesure de vocabulaire à votre enfant. Cette activité durera environ de 15 à 20 minutes. Il est à noter que cette activité aura lieu seulement lors de la première des deux visites au laboratoire. Ensuite, votre enfant participera à une activité en compagnie de l'AR qui lui demandera de mettre en scène des histoires à l'aide de figurines et d'accessoires. À l'aide des figurines, l'AR débutera 6 différentes histoires. Ensuite, il ou elle demandera à votre enfant de continuer et de terminer les histoires à l'aide des figurines. Cette activité sera d'une durée d'environ 30 minutes. Après la tâche des histoires, votre enfant complètera une évaluation sur son estime de soi et participera à

une tâche interactive informatique sur son bien-être psychologique. Lors de la seconde visite au laboratoire, les tâches liées à l'estime de soi et au bien-être psychologique de votre enfant seront remplacées par des évaluations auto-rapportés sur les relations familiales (tâche à l'ordinateur) et sur les relations avec sa fratrie.

À la suite de l'entrevue, vous serez réuni avec votre enfant. Une collation sera fournie pour votre enfant et vous. Votre enfant et vous allez ensuite participer à une procédure de dialogue émotionnel où nous aimerions que votre enfant et vous, vous rappeliez un moment où il/elle a senti une émotion particulière et que vous parliez de ce qui est arrivé. Cette activité sera suivie d'une interaction amusante de 2 minutes où nous vous demanderons de penser à ce que vous faites à la maison pour faire rire votre enfant. On vous demandera d'exécuter cette activité durant une période de 2 minutes.

Session 2b (questionnaires) :

Après la troisième session (visite au laboratoire), l'AR vous enverra un autre lien électronique afin que vous complétiez des questionnaires en-ligne dans le confort de votre maison (ensemble de questionnaires format papier sont également disponibles). La complétion des questionnaires lors de la session 2b sera d'une durée d'environ une heure. Ces questionnaires porteront sur votre bien-être, sur votre relation parentale, sur les comportements de votre enfant et sur la relation entre vos enfants (relations frère(s)-sœur(s), s'il y a lieu)

Description de l'échantillon

Au cours des quatre dernières années, 160 enfants d'âge préscolaire et leurs parents ont participé à la première phase de cette étude. Toutes les familles seront invitées à participer à la deuxième phase (le présent projet) de l'étude maintenant que les enfants sont âgés de 7 à 9 ans.

Est-ce que la participation à cette étude comporte des risques?

Vous pourriez vous sentir inconfortable d'être filmé durant votre repas et d'inviter des assistants de recherche à votre domicile. Vous pourriez également vous sentir inconfortable lors de la discussion filmée. Vous pourriez aussi vous sentir mal à l'aise de répondre à certaines questions lors de l'entrevue au laboratoire. Votre enfant pourrait se sentir mal à l'aise de raconter des histoires à l'aide de figurines ou de répondre aux questions lors de la tâche interactive informatique. Votre enfant et/ou vous pourriez également ressentir un inconfort émotif en participant à la procédure de séparation-réunion ou la procédure de dialogue émotionnel. Vous pourriez également vous sentir mal à l'aise de répondre à certaines questions des questionnaires. L'ensemble des inconforts qui pourraient survenir lors de cette étude ne devrait durer que quelques minutes et être minimes. Par contre, si l'inconfort ressenti est plus intense ou de plus longue durée, votre enfant et/ou vous pouvez décider de ne pas compléter certaines activités ou procédures en cours ou de vous retirer de l'étude.

Est-ce qu'il y a des avantages à participer à cette étude?

Votre enfant et vous n'allez pas nécessairement bénéficier directement de cette recherche. Par contre, nous espérons que cette étude aidera les chercheurs et les parents à mieux comprendre la contribution des interactions familiales sur l'adaptation sociale des enfants lors des premières années scolaires.

Compensation

Si vous décidez de participer à cette étude, nous vous donnerons 20\$ pour la visite à la maison et 20\$ pour chaque visite au laboratoire auxquelles vous participerez et 10\$ pour chaque session de questionnaires en ligne (2 sessions pour chaque parent). Si vous ne complétez pas une session ou si vous vous retirez d'une session, nous vous donnerons tout de même le montant correspondant à la session à laquelle vous participiez. Ce montant devrait couvrir les dépenses associées à la participation à cette étude (ex. essence, frais de garde). De plus, pour sa participation à notre étude, votre enfant recevra un jouet de notre coffre aux trésors après chaque session au laboratoire.

Retrait de l'étude

Vous pouvez décider de ne pas participer à notre étude. De plus, même si votre enfant et vous acceptez de participer, vous pouvez changer d'idée à tout moment. Si vous décidez de vous retirer, vous avez toujours le droit de décider si les données filmées ou les données des questionnaires (jusqu'à ce moment) peuvent être utilisées pour l'étude et/ou à des fins de formation.

Limites à la confidentialité

Votre information personnelle ainsi que celle de votre enfant restera strictement confidentielle, sauf si la loi l'exige. Si les assistants de recherche croient qu'un enfant dans la famille est victime d'abus ou de négligence, ils vont communiquer avec le chercheur principal et la Société de l'aide à l'enfance (ou la Direction de la Protection de la Jeunesse au Québec), telle que prescrit par la loi.

Un numéro sera attribué à votre enfant et à vous. Les données de l'étude (interactions et questionnaires) vont être enregistrées sous ce numéro plutôt que sous le nom de votre enfant ou votre nom.

Vos informations personnelles et les données de cette étude seront conservées pour une période de 10 ans. Après 10 ans, ces informations et ces données seront détruites. Toutes les informations et les données seront conservées dans une filière barrée et dans un ordinateur protégé par un mot de passe à l'École de psychologie de l'université d'Ottawa. Seulement les chercheurs, les assistant(e)s de recherche et les étudiant(e)s gradué(e)s qui travaillent sur ce projet auront accès aux données.

Les résultats de cette étude pourraient être utilisés à des fins de formation. Le nom de votre enfant et votre nom ne seront pas identifiés lors de ces formations.

Si vous le désirez, vous pourrez recevoir un résumé des résultats de l'étude. Nous pourrions vous fournir ce résumé à la fin de l'étude.

Si vous avez des questions concernant cette étude, n'hésitez pas à communiquer avec le chercheur principal, Dr. Jean-François Bureau au (613) 562-5800 (poste 4484). Si vous aimeriez participer à l'étude, veuillez communiquer avec le CARE lab de l'université d'Ottawa par téléphone au (613) 562-5800 (poste 4495) ou par courriel lreecare@uottawa.ca

En vous remerciant de prendre le temps de considérer cette deuxième phase de l'étude.

Sincèrement,
Jean-Francois Bureau

Appendix F: English and French consent form Chapter II-Study 2

Informed Consent Sheet for Parents**Longitudinal exploration of family systems dynamic and child social adaptation in early school years: The role of father-child, mother-child and parents relationships**

Investigator: Jean-Francois Bureau, Professor, School of Psychology, University of Ottawa

Phone Number: 613-562-5800 (4495)

Email address: lreecare@uottawa.ca

You and your child are, once again, invited to take part in the continuation of the research study that is being conducted by researchers from the University of Ottawa and funded by the Social Sciences and Humanities Research Council of Canada.

Purpose of this study

In the current study, we want to follow-up with you and your family roughly four years after your last visit at the CARElab. We would like to explore the dynamics within various family systems (father-child and mother-child relationships; parent-child triad; co-parental relationship; couple relationship; sibling relationship) and how they relate to children's social adaptation in middle childhood within a longitudinal framework. This study also looks at the quality of the interactions of these various family systems in different contexts such as the home setting, school setting and lab setting.

In order to fully understand the contributions of family dynamics on children's development, we need to also take into account the interconnections of the different relationships involved. It is believed that this research will provide a better understanding of the contribution of family interactions to child social adaptation in early school years.

You are free to choose to participate or not participate in the second phase of this study.

Procedures

For this study, you and your child will be asked to participate in 3 study sessions. These 3 sessions will be completed within a 6 month time period. Below you will find a detailed explanation of what you will be asked to do at each of these sessions.

Session 1 (Home Visit):

For Session 1, you will be contacted by telephone or email by a Research Assistant (RA). Session 1 will take approximately an hour and a half to complete and will be audio- and video-recorded. The RA will schedule a convenient time for 2 RAs to videotape your family in their home, during mealtime (lunch time or dinner time). The mealtime will be followed by a brief family board game. Then, you and your partner as well as your child will be asked to interact as a group of three for 15 minutes. After these tasks, you and your partner will participate in a 15-minute videotaped discussion on a topic that is a source of disagreement in your relationship while your child will play a game (videotaped) with his/her siblings (or alone, if no siblings) for a period of 10 minutes. Finally, you and your partner will both be asked to complete a questionnaire on your parenting stress.

During the home visit, written consent to contact the child's teacher will be requested from both parents. Then a research assistant will contact teachers by phone or by email and, in case of verbal agreement, will send a questionnaire package (30 min.) to be returned to our team by mail. Teachers will report on child social adaptation and academic performance.

Session 2a (Questionnaires)

Following Session 1 (Home Visit), a RA will send you a link to complete online questionnaires from the comfort of your home (paper questionnaire packages are also available). Session 2a will take approximately two hours to complete. These questionnaires ask general information about your family as well as questions about your couple relationship such as your relationship satisfaction, your self-esteem, and your trust in your romantic relationship.

Session 3 (Lab Visits):

You and your child's other parent will complete Session 3 at different times. One of you will complete Session 3 a month after Session 1 (Home Visit), and the other parent will complete Session 3, approximately 3 months after your child completes Session 3 for the first time. Session 3 will take approximately 2 hours to complete and will be audio- and video-recorded.

For Session 3, you and your child will be invited to the same research lab at the University of Ottawa. To begin the session, you will be asked to engage in a 5 minute free play interaction with your child.

Following the free play interaction, you and your child will complete a separation-reunion procedure. During the separation, you and your child will complete different tasks in two different rooms.

You will participate in an hour long interview about your childhood and your relationship with your parents. At the same time, the RA will administer a brief measure of your child's vocabulary, which will take 15 to 20 minutes. Please note that this activity will only occur during the first of the two lab sessions, and not for both. After, your child will complete a task with the RA that requires him/her to develop some stories using doll plays. Using the dolls, the RA will tell your child the beginnings of 6 different stories. Following each beginning, your child will be asked to continue and complete the stories using the dolls. This task will take approximately 30 minutes to complete. After the doll-play task, your child will complete a self-esteem assessment and will participate in a 15-minute interactive computer task on psychological well-being. The self-esteem and the psychological well-being tasks will be replaced by self-reports of family (computer task) and sibling relationships in the second visit.

Following the interview, you will be reunited with your child. A snack will be provided for you and your child. You and your child will then participate in an emotional dialogue procedure where we would like for you and your child to remember a time when he/she felt a specific emotion and talk about what happened. This will be followed by a 2-minute playful interaction where you will be asked to think about what you do at home to make your child laugh. You will be asked to do this activity or action for 2 minutes with your child.

Session 2b (Questionnaires):

Following Session 3 (Lab Visit), a RA will send you another link to complete online questionnaires from the comfort of your home (paper questionnaire packages are also available). Session 2b will take

approximately an hour to complete. These questionnaires ask about your well-being, your co-parenting relationship, your child's behaviour and your children's relationship (sibling relationship - if applicable).

Participant description

Over the last four years, 160 preschool children and their parents participated in the first phase of this study. All families will be invited to participate in phase 2 (the proposed project) of the study now that the children are between the ages of 7 and 9.

Are there any risks to participating in the research?

You may feel uncomfortable eating your meal in front of a video camera or inviting the RAs into your home. You may experience some discomfort during participation in the filmed discussion task. You may also feel uncomfortable answering some questions in the lab interview. Your child may feel uncomfortable with the stories that are part of the doll-play task or in answering questions that are part of the interactive computer task. The separation-reunion procedure and the emotional dialogue procedure could make you and/or your child emotionally uncomfortable. You may also feel uncomfortable answering some questions on the questionnaires. All of the discomforts that are a part of this study are likely to be small and are likely to last no more than a few minutes. If you and/or your child are too uncomfortable with any of the tasks or procedures that are a part of this study, you may choose not to complete the procedure(s) or withdraw from the study.

Are there any benefits to participating in the research?

You and your child may not directly benefit from this research. However, it is hoped that this study will help researchers and parents better understand the contribution of family interactions to child social adaptation in middle childhood.

Compensation

If you choose to participate in this study, you will be given \$20 for the Home Visit and 20\$ for each Lab Visit that you attend and 10\$ per online questionnaire session (2 sessions for each parent). If you do not complete or withdraw from a session you will still be given the corresponding amount. This money should cover any expenses that you may have because of the study (i.e. gas, child care). Also, for participating in this study, your child will receive a toy from our treasure chest after each lab visit.

Withdrawing from the study

If you decide not to take part in this study, that is alright. If you or your child decide to take part, but change your minds at any time, that is fine too. If you choose to withdraw, you still have the right to decide if the videos or questionnaire data (up to that point) may be used for the study and/or training purposes.

Limits of confidentiality

You and your child's personal information will be kept strictly confidential, except as required or permitted by law. If the Research Assistants believe your child is being abused or neglected, they will notify the principal investigator and the Children's Aid Society will be contacted, as required by law.

You and your child will be assigned a number. You and your child's interactions and questionnaire results will be recorded under this number and not under you or your child's name.

Your personal information and the data for this study will be kept for 10 years. After 10 years this information and data will be destroyed. All information and data will be kept in a locked filing cabinet and password protected computer in the School of Psychology at the University of Ottawa. Only the investigators, research assistants, and graduate students working on the project will have access to this data.

The results from this study may be used for training purposes. You and your child's names will not be identified in these training sessions.

If you wish, you can receive a summary of the study's results. You will be provided with this summary at the conclusion of the study.

Research Ethics

The Research Ethics Board is a group of people from scientific and non-scientific backgrounds who review research studies. Their goal is to ensure the protection of the rights and welfare of people involved in research. You may contact the Protocol Officer for Ethics in Research at the University of Ottawa for information regarding your rights in this research study or to make a complaint about the ethical conduct of this project. They can be reached at, (613) 562-5387 or by email at ethics@uottawa.ca.

There are two (2) copies of this consent form, one that the researchers keep, and one for you to keep.

Please feel free to contact Jean-François Bureau at (613) 562-5800 (ext. 4484) if you have any questions about this research study.

I, _____ consent to participate in the above research study by Jean-François Bureau of the school of Psychology in the faculty of Social Sciences at the University of Ottawa. I have received a copy of this consent form.

I have legal custody of my child and consent to allow my child to participate in this project.

Participant's signature (as Parent)

Printed name

Date

I, _____ consent to let Jean-François Bureau of the school of Psychology in the faculty of Social Sciences at the University of Ottawa use the video for training purposes.

Yes: _____

No: _____

Participant's signature (as Parent)

Printed name

Date

Signature of person obtaining consent

Printed name of person obtaining consent

Date

- I am interested in the results of this study and wish to receive the *Couple Research Lab Newsletter*.
- E-mail: _____
- I do not have an E-mail address; please send it through regular mail.

In a few months, I may be contacted again in order to evaluate long-term effects of people's opinions. In the second phase of the study, I will be asked to participate in similar tasks.

- I **accept** to be contacted again to participate in the second phase of the study.
- I **refuse** to be contacted again to participate in the second phase of the study.

If you plan to move soon, please indicate the name and phone number of a relative or a friend that we could contact in order to be able to contact you at a later point in time.

_____ (_____) _____

Name of a relative or a friend

Phone number

Formulaire de consentement éclairé : Parents

Exploration longitudinale de la dynamique des systèmes familiaux et de l'adaptation sociale des enfants au cours des premières années scolaires : le rôle des relations père-enfant, des relations mère-enfant et des relations parentales.

Chercheur: Jean-Francois Bureau, Professeur, École de psychologie, Université d'Ottawa

Numéro de téléphone: 613-562-5800 (4495)

Courriel: ireecare@uottawa.ca

Votre enfant et vous êtes invité(e)s, encore une fois, à participer à la seconde phase de l'étude conduite par des chercheurs de l'Université d'Ottawa et financée par le Conseil de recherches en sciences humaines du Canada.

Quel est le sujet de l'étude?

Dans la présente étude, nous voulons faire un suivi avec vous et votre famille près de quatre ans après votre dernière visite au CARElab. Nous aimerions explorer les dynamiques des différents systèmes familiaux (les relations père-enfant et mère-enfant; la triade parents-enfant; la relation co-parentale; les relations de couple; les relations au sein de la fratrie) et comment ils sont associés à l'adaptation sociale des enfants durant la période scolaire au sein d'un cadre longitudinal. Cette étude porte aussi sur la qualité des interactions de ces divers systèmes familiaux dans différents contextes tels qu'à la maison, à l'école ou au laboratoire.

Afin de mieux saisir les contributions des dynamiques familiales sur le développement des enfants, il est également important de considérer les interactions entre les différentes relations impliquées. Nous croyons que cette recherche aidera à mieux comprendre la contribution des interactions familiales sur l'adaptation des enfants lors des premières années scolaires.

Vous êtes libre de participer ou de ne pas participer à la seconde phase de cette étude.

Procédure

Pour cette étude, votre enfant et vous serez invité(e)s à participer à trois sessions. Ces trois sessions se dérouleront à l'intérieur d'une période de 6 mois. Ci-dessous, vous trouverez une description détaillée de chacune de ces trois sessions.

Session 1 (visite à la maison):

Pour la première session, un(e) assistant(e) de recherche (AR) communiquera avec vous par téléphone ou par courriel. La première session sera d'une durée d'environ une heure et demie et la session sera filmée et enregistrée. L'AR planifiera une visite selon vos disponibilités afin que deux ARs viennent filmer votre famille lors d'un repas à votre domicile (lors du dîner ou du souper). Le repas sera suivi d'une courte période où on demandera à votre famille de jouer à un jeu de société en famille. Ensuite, votre conjoint(e) et vous ainsi que votre enfant devrez interagir ensemble durant une période de 15 minutes. Après ces tâches, votre conjoint(e) et vous allez participer à une discussion filmée où on vous demandera de discuter

d'un sujet qui est source de désaccord dans votre relation alors que pendant ce temps, votre enfant jouera à un jeu (filmé) avec son (ses) frère(s) et/ou sa (ses) sœur(s) (ou seul(e) si votre enfant n'a pas de frère(s) ou de sœur(s)) durant une période de 10 minutes. Finalement, votre conjoint(e) et vous devrez chacun compléter un questionnaire sur votre stress parental.

Lors de la visite à la maison, le consentement écrit des deux parents sera demandé afin de donner la permission aux ARs de communiquer avec l'enseignant(e) de l'enfant. L'AR communiquera ensuite par téléphone ou par courriel avec les enseignant(e)s et, en cas d'accord verbal, enverra une série de questionnaires (30 minutes) qui devra être retournés aux chercheurs par courrier. Les questionnaires porteront sur l'adaptation sociale des enfants et leur rendement scolaire.

Session 2a (questionnaires) :

Après la première session (visite à la maison), l'AR vous enverra un lien électronique afin que vous complétiez des questionnaires en-ligne dans le confort de votre maison (ensemble de questionnaires format papier sont également disponibles). La complétion des questionnaires lors de la session 2a sera d'une durée d'environ deux heures. Ces questionnaires porteront sur des renseignements généraux sur votre famille ainsi que sur votre relation de couple telle que votre satisfaction par rapport à votre relation, votre estime de soi et votre confiance quant à votre relation romantique.

Session 3 (visites au laboratoire) :

Votre conjoint(e) et vous allez compléter la troisième session à des moments différents. L'un de vous complètera la troisième session un mois après la première session (visite à la maison) et l'autre parent complètera la troisième session environ 3 mois après que votre enfant ait complété la troisième session pour la première fois. La troisième session sera d'une durée approximative de 2 heures et elle sera filmée et enregistrée.

Pour la troisième session, votre enfant et vous serez invité(e)s au même laboratoire de recherche à l'université d'Ottawa. Au début, nous vous demanderons de participer à une session de jeu libre avec votre enfant durant une période de 5 minutes.

À la suite de cette interaction, votre enfant et vous allez compléter une procédure de séparation-réunion. Lors de la séparation, votre enfant et vous allez participer à différentes tâches dans deux différentes pièces.

Vous participerez à une entrevue d'une heure au sujet de votre enfance et de votre relation avec vos parents. Pendant ce temps, l'AR va administrer une brève mesure de vocabulaire à votre enfant. Cette activité durera environ de 15 à 20 minutes. Il est à noter que cette activité aura lieu seulement lors de la première des deux visites au laboratoire. Ensuite, votre enfant participera à une activité en compagnie de l'AR qui lui demandera de mettre en scène des histoires à l'aide de figurines et d'accessoires. À l'aide des figurines, l'AR débutera 6 différentes histoires. Ensuite, il ou elle demandera à votre enfant de continuer et de terminer les histoires à l'aide des figurines. Cette activité sera d'une durée d'environ 30 minutes. Après la tâches des histoires, votre enfant complètera une évaluation sur son estime de soi et participera à une tâche interactive informatique sur son bien-être psychologique. Lors de la seconde visite au laboratoire, les tâches liées à l'estime de soi et au bien-être psychologique de votre enfant seront

remplacées par des évaluations auto-rapportés sur les relations familiales (tâche à l'ordinateur) et sur les relations avec sa fratrie.

À la suite de l'entrevue, vous serez réuni avec votre enfant. Une collation sera fournie pour votre enfant et vous. Votre enfant et vous allez ensuite participer à une procédure de dialogue émotionnel où nous aimerions que votre enfant et vous, vous rappeliez un moment où il/elle a senti une émotion particulière et que vous parliez de ce qui est arrivé. Cette activité sera suivie d'une interaction amusante de 2 minutes où nous vous demanderons de penser à ce que vous faites à la maison pour faire rire votre enfant. On vous demandera d'exécuter cette activité durant une période de 2 minutes.

Session 2b (questionnaires) :

Après la troisième session (visite au laboratoire), l'AR vous enverra un autre lien électronique afin que vous complétiez des questionnaires en-ligne dans le confort de votre maison (ensemble de questionnaires format papier sont également disponibles). La complétion des questionnaires lors de la session 2b sera d'une durée d'environ une heure. Ces questionnaires porteront sur votre bien-être, sur votre relation co-parentale, sur les comportements de votre enfant et sur la relation entre vos enfants (relations frère(s)-sœur(s), s'il y a lieu.

Description de l'échantillon

Au cours des quatre dernières années, 160 enfants d'âge préscolaire et leurs parents ont participé à la première phase de cette étude. Toutes les familles seront invitées à participer à la deuxième phase (le présent projet) de l'étude maintenant que les enfants sont âgés de 7 à 9 ans.

Est-ce que la participation à cette étude comporte des risques?

Vous pourriez vous sentir inconfortable d'être filmé durant votre repas et d'inviter des assistants de recherche à votre domicile. Vous pourriez également vous sentir inconfortable lors de la discussion filmée. Vous pourriez aussi vous sentir mal à l'aise de répondre à certaines questions lors de l'entrevue au laboratoire. Votre enfant pourrait se sentir mal à l'aise de raconter des histoires à l'aide de figurines ou de répondre aux questions lors de la tâche interactive informatique. Votre enfant et/ou vous pourriez également ressentir un inconfort émotif en participant à la procédure de séparation-réunion ou la procédure de dialogue émotionnel. Vous pourriez également vous sentir mal à l'aise de répondre à certaines questions des questionnaires. L'ensemble des inconforts qui pourraient survenir lors de cette étude ne devrait durer que quelques minutes et être minimes. Par contre, si l'inconfort ressenti est plus intense ou de plus longue durée, votre enfant et/ou vous pouvez décider de ne pas compléter certaines activité ou procédure en cours ou de vous retirer de l'étude.

Est-ce qu'il y a des avantages à participer à cette étude?

Votre enfant et vous n'allez pas nécessairement bénéficier directement de cette recherche. Par contre, nous espérons que cette étude aidera les chercheurs et les parents à mieux comprendre la contribution des interactions familiales sur l'adaptation sociale des enfants lors des premières années scolaires.

Compensation

Si vous décidez de participer à cette étude, nous vous donnerons 20\$ pour la visite à la maison et 20\$ pour chaque visite au laboratoire auxquelles vous participerez et 10\$ pour chaque session de questionnaires en ligne (2 sessions pour chaque parent). Si vous ne complétez pas une session ou si vous vous retirez d'une session, nous vous donnerons tout de même le montant correspondant à la session à laquelle vous participiez. Ce montant devrait couvrir les dépenses associées à la participation à cette étude (ex. essence, frais de garde). De plus, pour sa participation à notre étude, votre enfant recevra un jouet de notre coffre aux trésors après chaque session au laboratoire.

Retrait de l'étude

Vous pouvez décider de ne pas participer à notre étude. De plus, même si votre enfant et vous acceptez de participer, vous pouvez changer d'idée à tout moment. Si vous décidez de vous retirer, vous avez toujours le droit de décider si les données filmées ou les données des questionnaires (jusqu'à ce moment) peuvent être utilisées pour l'étude et/ou à des fins de formation.

Limites à la confidentialité

Votre information personnelle ainsi que celle de votre enfant restera strictement confidentielle, sauf si la loi l'exige. Si les assistants de recherche croient qu'un enfant dans la famille est victime d'abus ou de négligence, ils vont communiquer avec le chercheur principal et la Société de l'aide à l'enfance (ou la Direction de la Protection de la Jeunesse au Québec), telle que prescrit par la loi.

Un numéro sera attribué à votre enfant et à vous. Les données de l'étude (interactions et questionnaires) vont être enregistrées sous ce numéro plutôt que sous le nom de votre enfant ou votre nom.

Vos informations personnelles et les données de cette étude seront conservées pour une période de 10 ans. Après 10 ans, ces informations et ces données seront détruites. Toutes les informations et les données seront conservées dans une filière barrée et dans un ordinateur protégé par un mot de passe à l'École de psychologie de l'université d'Ottawa. Seulement les chercheurs, les assistant(e)s de recherche et les étudiant(e)s gradué(e)s qui travaillent sur ce projet auront accès aux données.

Les résultats de cette étude pourraient être utilisés à des fins de formation. Le nom de votre enfant et votre nom ne seront pas identifiés lors de ces formations.

Si vous le désirez, vous pourrez recevoir un résumé des résultats de l'étude. Nous pourrions vous fournir ce résumé à la fin de l'étude.

Éthique de la recherche

Le comité d'éthique est un groupe de personnes provenant de milieux scientifiques et non-scientifiques qui évaluent les recherches scientifiques. Leur objectif est de s'assurer de la protection des droits et du bien-être des personnes impliquées dans la recherche. Pour de plus amples informations concernant vos droits dans cette étude ou pour formuler une plainte à propos de la conduite de cette recherche sur le plan éthique, vous pouvez communiquer avec la personne responsable de l'éthique en recherche à l'université d'Ottawa. Vous pouvez communiquer avec eux au numéro de téléphone suivant : (613) 562-5387 ou par courriel à ethique@uottawa.ca.

Il y a deux (2) copies de ce formulaire de consentement, un formulaire que les chercheurs vont garder et un formulaire que vous pouvez garder.

N'hésitez pas à communiquer avec le chercheur principal, Jean-François Bureau au (613) 562-5800 (poste 4484) si vous avez des questions concernant cette recherche.

Je, _____, consens à participer à l'étude décrite précédemment et conduite par Jean-François Bureau de l'école de psychologie de la faculté des sciences sociales à l'université d'Ottawa. J'ai reçu une copie de ce formulaire de consentement.

J'ai la garde légale de mon enfant et je consens à ce que mon enfant participe à cette étude.

Signature du participant (en tant que parent)

Nom en lettres moulées

Date

Je, _____, consens à Jean-François Bureau de l'école de psychologie de la faculté des sciences sociales à l'université d'Ottawa l'utilisation des vidéos à des fins de formation.

Oui: _____

Non: _____

Signature du participant (en tant que parent)

Nom en lettres moulées

Date

Signature de la personne obtenant le consentement

Nom en lettres moulées de la personne obtenant le consentement

Date

Appendix G: English and French resource sheet Chapter II-Study 2

Dear participant,

Thank you for taking part in our study. Your participation will help us to better understand the contribution of family interactions to child social adaptation in middle childhood. The purpose of the study that you have participated in is to explore the dynamics within various family systems (father-child and mother-child relationships; parent-child triad; co-parental relationship; couple relationship; sibling relationship) and how they relate to children's social adaptation in middle childhood within a longitudinal framework.

Some of the questions that you were asked during the lab interview dealt with very personal and sensitive issues. Thus, we would like to offer you a list of resources that may be beneficial for you. If at any time you would like to speak with members of our research team, we invite you to contact us.

Please make use of the resources below should you require any additional support. Please do not hesitate to call our research team if you have any questions or concerns.

Thank you,

Resource List

			Fees
Crisis Call Centers			
Ottawa Distress Centre (www.dcottawa.on.ca)	613-238-3311	24-hour general crisis intervention.	Free
Mental Health Crisis Line (www.crisisline.ca)	613-722-6914 (Ottawa) 1-866-996-0991	24-hour mental health crisis line serving individuals 16 years and older.	Free
Mobile Crisis Unit of Ottawa (http://www.ysb.on.ca/index.php?page=24-7-crisis-line&hl=eng)	613-562-3004	Offers telephone crisis intervention as well as possible home intervention for children, youth ages 0 to 15 years and their families.	Free
Tel-Aide Outaouais (www.tel-aide-outaouais.org)	613-741-6433 (Ottawa/Gatineau) 1-800-567-9699 (rural)	24-hour crisis line for individuals living in the Ottawa/Gatineau region. Services available to all ages.	Free
Le Centre d'Aide (help seems to be mostly offered in French) (http://centredaide247.com/nous-joindre/)	819-595-9999	24-hr French distress line for Outaouais region.	Free
Child, Youth and Family Crisis Line for Eastern Ontario (http://www.icrs.ca/en)	613-260-2360 1-877-377-7775 (toll-free)	Provides access to crisis professionals 24 hours a day, seven days a week, serving children and youth 18 and under experiencing a crisis, and their families.	Free

Mental Health & Social Service Resources		Fees	
www.ementalhealth.ca		A comprehensive online list of mental health resources available in the Ottawa-Carleton region	Free
Centre for Psychological Services and Research (University of Ottawa) (http://socialsciences.uottawa.ca/psy/cpsr)	613-562-5289	Offers individual therapy for adolescents and adults, couple therapy and child and family services.	Standard hourly fees, with possible adjustments based on income
Family Service Centre of Ottawa (http://familyservicesottawa.org/)	613-725-3601	Offers various services including: counseling and support to individuals, couples or families; community programs; community outreach; anti-violence programs; parental separation issues.	Free and/or standard hourly fees, with possible adjustments based on income
Crossroads Children's Treatment Centre (http://www.crossroadschildren.ca/)	613-723-1623	Provides help to children up to 12 years and their families with behavioural and emotional difficulties (i.e. externalizing problems). Services include day treatment; the Grimes Family Skills Strengthening Program and community based family services such as individual, family and group therapy, behaviour management and anger management groups.	Free
Centre psychosocial pour enfants et familles d'Ottawa (help seems to be mostly offered in French) (http://www.centrepsychosocial.ca/fr/)	613-789-2240	Offers francophone services to children ages 0 to 17 years old with mental health difficulties and their families including therapeutic interventions such as family therapy, play therapy	Free and/or standard hourly fees

		and programs for children who are victims of sexual abuse.	
Family Service Centre of Ottawa (www.familyservicesottawa.org)	613-725-3601	Offers various services including: counseling and support to individuals, couples or families; community programs; community outreach; anti-violence programs; parental separation issues.	Free
Ottawa Academy of Psychologists (www.ottawa-psychologists.org)	613-235-2529	Comprehensive list of registered psychologists and their specialties in the Ottawa area	Free

Support & Counselling Resources related to Physical or Partner Abuse			Fees
Eastern Ottawa Resource Centre (www.eorc-gloucester.ca)	613-745-4818 (crisis) 613-741-6025 (information)	Women and relationship violence program, information, support, crisis and long-term counselling and referrals.	Free
Assaulted Women's Help Line (www.awhl.org)	1-866-863-0511 (English) 1-877-336-2433 (French)	24-hour crisis line for women in abusive situations.	Free

Cher/Chère participant(e),

Merci d'avoir participé à notre étude. Votre participation nous aidera à mieux comprendre la contribution des interactions familiales sur l'adaptation sociale des enfants lors des premières années scolaires. Le but de l'étude à laquelle vous avez participé est d'explorer les dynamiques des différents systèmes familiaux (les relations père-enfant et mère-enfant; la triade parents-enfant; la relation co-parentale; les relations de couple; les relations au sein de la fratrie) et comment ils sont associés à l'adaptation sociale des enfants durant la période scolaire au sein d'un cadre longitudinal.

Certaines questions lors de l'entrevue en laboratoire étaient très personnelles et délicates. Nous désirons donc vous offrir une liste de ressources qui pourrait être bénéfique pour vous. Si vous souhaitez discuter avec un membre de notre équipe de recherche, nous vous invitons à communiquer avec nous.

Veillez utiliser les ressources ci-dessous si vous avez besoin de soutien additionnel. N'hésitez surtout pas à communiquer avec notre équipe de recherche si vous avez des questions ou des préoccupations.

Merci,

Liste de ressources

	Centres de crise téléphonique		Tarifcation
Ottawa Distress Centre (www.dcottawa.on.ca)	613-238-3311	Intervention de crise générale – 24 heures.	Sans frais
Ligne de crise en santé mentale (www.crisisline.ca)	613-722-6914 (Ottawa)	Ligne de crise en santé mentale pour les personnes âgées de 16 ans et plus – 24heures.	Sans frais
Équipe mobile d'intervention d'urgence d'Ottawa (http://www.ysb.on.ca/index.php?page=24-7-crisis-line&hl=fra)	1-866-996-0991 613-562-3004	Offre une intervention d'urgence téléphonique ainsi qu'une possibilité d'intervention à domicile pour les enfants, les jeunes âgés de 0 à 15 ans et leur famille.	Sans frais
Tel-Aide Outaouais (www.tel-aide-outaouais.org)	613-741-6433 (Ottawa/Gatineau) 1-800-567-9699 (rurale)	Ligne de détresse pour la région d'Ottawa-Gatineau. Services disponibles pour tous les âges – 24heures.	Sans frais
Le Centre d'Aide (http://centredaide247.com/nous-joindre/)	819-595-9999	Ligne de détresse francophone pour la région de l'Outaouais - 24hr.	Sans frais
Ligne de crise pour enfants, jeunes et familles de l'Est de l'Ontario (http://www.icrs.ca/fr)	613-260-2360 1-877-377-7775 (sans frais)	Offre une ligne d'aide et d'écoute professionnelle 24 heures sur 24, sept jours sur sept pour les enfants, jeunes et familles en situation de crise.	Sans frais

Ressources pour la santé mentale et les services sociaux		Tarifcation
www.ementalhealth.ca		Sans frais
	Une liste exhaustive de ressources en santé mentale disponibles dans la région d'Ottawa-Carleton.	
Le Centre de recherche et des services psychologiques (Université d'Ottawa) (http://sciencesociales.uottawa.ca/psy/crsp)	613-562-5289	Services de thérapie individuelle pour adolescents et adultes, thérapie de couple, thérapie pour enfants et thérapie familiale.
		Les honoraires sont fixés à l'heure mais peuvent être modifiés selon le revenu
Services à la famille d'Ottawa (http://familyservicesottawa.org)	613-725-3601	Offre divers services tels que du counseling et du soutien aux individus, aux couples et aux familles; des programmes communautaires; de la sensibilisation communautaire; des programmes de lutte contre la violence et; des services liés aux problèmes de séparation des parents.
		Sans frais et/ou un taux qui est modifié selon le revenu
Crossroads Children's Treatment Centre (l'aide semble principalement être fournie en anglais) (http://www.crossroadschildren.ca/)	613-723-1623	Fournit de l'aide aux enfants âgés de 0 à 12 ans et à leur famille qui ont des difficultés au niveau du comportement et des émotions (par exemple des problèmes externalisés). Les services comprennent un soin d'une journée; le programme de renforcement des compétences familiales Grimes et des services aux familles de la communauté tels que de la thérapie individuelle, familiale et de groupe, de la gestion du comportement et des groupes de gestion de la colère.
		Sans frais

Centre psychosocial pour enfants et familles d'Ottawa (http://www.centropsychosocial.ca/fr/)	613-789-2240	Offre des services francophones pour les enfants âgés de 0 à 17 ans ayant des problèmes de santé mentale et leur famille, notamment des interventions thérapeutiques comme la thérapie familiale, la thérapie par le jeu et des programmes pour les enfants qui sont victimes d'abus sexuels.	Sans frais et/ou honoraires fixés à l'heure
Services familiaux d'Ottawa (www.familyservicesottawa.org)	613-725-3601	Offre du counseling individuel, familial et de couple, ainsi que des groupes de soutien pour les femmes victimes d'abus.	Sans frais
Académie des psychologues d'Ottawa (www.ottawa-psychologists.org)	613-235-2529	Une liste exhaustive des psychologues enregistrés à Ottawa et leur spécialisation.	Sans frais

			Tarifcation
Ressources de counseling et de support lié à l'abus physique ou conjugal			
Centre de ressources de l'Est d'Ottawa (www.eorc-gloucester.ca)	613-745-4818 (crise) 613-741-6025 (information)	Programme pour les femmes vivant des relations violentes, information, soutien, références, intervention de crise et à long terme.	Sans frais
Ligne d'aide pour les femmes (www.awhl.org)	1-866-863-0511 (Anglais) 1-877-336-2433 (Français)	Ligne de crise (24 heures) pour les femmes se retrouvant dans des situations d'abus.	Sans frais

Appendix H: English and French sociodemographic questionnaire Chapter II-Study 2

SOCIO DEMOGRAPHIC INFORMATION

The goal of this survey is to collect general information regarding your family such as, your marital status, education, occupational, financial status, and state of health. For each question, please circle the number beside the appropriate answer.

PLEASE NOTE. ANY INFORMATION YOU PROVIDE IN THIS SURVEY WILL BE KEPT CONFIDENTIAL, AND WILL ONLY BE USED FOR RESEARCH AND EDUCATIONAL PURPOSES. THESE CONFIDENTIAL INFORMATIONS WILL BE ANALYZED IN GROUP, MAKING YOUR IDENTIFICATION IMPOSSIBLE.

- SD1. Indicate your child's first & last name: _____
- SD2. Indicate the mother's first & last name: _____
- SD3. Indicate the father's first & last name: _____
- SD4a. What is your address (Home)? _____ SD4b. Postal Code: _____
- SD4c. What is your telephone number at home: _____
- SD4d. At work or cellphone (father): _____
- SD4e. At work or cellphone (mother): _____
- SD4f. What is your email address? _____
- SD4g. What is the date in which you completed the survey (yyyy-mm-dd)? _____
- SD4. Please indicate the first & last name of every individual (including you) who lives in your home as well as the relation this individual has with your child (eg. brother, aunt):
- SD4h. First and last name: _____ SD4i. Relation with child: _____
- SD4j. First and last name: _____ SD4k. Relation with child: _____
- SD4l. First and last name: _____ SD4m. Relation with child: _____
- SD4n. First and last name: _____ SD4o. Relation with child: _____
- SD4p. First and last name: _____ SD4q. Relation with child: _____
- SD4r. First and last name: _____ SD4s. Relation with child: _____
- SD4t. First and last name: _____ SD4u. Relation with child: _____
- SD4v. First and last name: _____ SD4w. Relation with child: _____
- SD5. Indicate your child's sex.
1 = Boy 2 = Girl
- SD6. What is your child's age, in years and months? _____ years and _____ months

SD7a. What is your marital status? SD7b. How long have you been married to your partner?

- 1 = Married (go to question SD7b) _____ years and _____ months
 2 = Common law
 3 = Separated
 4 = Divorced
 5 = Single
 6 = Widowed
 7 = Re-married

SD8a. Are with the same partner as when you participated in phase 1 of the study?

- 1 = Yes 2 = No

SD8b. How long have you been in this relationship, in years and months?

_____ years and _____ months

SD9. How long have you been living together with your partner, in years and months?

_____ years and _____ months

SD10a. What is the date of birth (yyyy-mm-dd) of your child/children, starting from the oldest?

-g. 1st _____ 2nd _____ 3rd _____
 4th _____ 5th _____ 6th _____
 7th _____

SD11a. What is the sex of your child/children, starting from the oldest?

-g. 1st _____ 2nd _____ 3rd _____ 4th _____ 5th _____ 6th _____ 7th _____

SD12. How many children do you have with your partner? _____

SD13. How many children do you have from previous relationships? _____

SD14. What is the number of bedrooms in your residence? _____

SD15. Do you own _____ (SD15a) or rent _____ (SD15b) your residence?

SD16. How many years have you lived at this address? _____

SD17. How many times have you moved in the past 5 years? _____

SD18. Indicate the highest educational degree you have received.

SD18a. = Graduate Studies 1 2 3 4 5 6

SD18b. = University 1 2 3 4

SD18c. = College 1 2 3

SD18d. = High school 7 8 9 10 11 12

SD18e. = Elementary school 1 2 3 4 5 6

SD18f. = Last Diploma/degree
 obtained (name): _____

SD19a. What is your main daily activity?

1 = Blue collar (construction, factory worker, manual work, etc.)

2 = White collar (administrator, lawyer, director, office work, sales, etc.)

3 = Enterprise owner or self-worker

4 = Unemployed

5 = Student

6 = Stay at home

7 = Other, specify: _____
(SD19b)

SD19c. What are on average the # of days worked/week: _____

SD19d Please indicate any second jobs you may have, if applicable (i.e. Other job, volunteer, leisure, etc...): _____

SD19e. What are on average the # of days worked/week for those second jobs:

SD20. What is your family's **gross annual** income (before tax and deductions)?

Less than 10 000 _____

40 000 - 49 999 _____

10 000 – 19 999 _____

50 000 – 74 999 _____

20 000 – 29 999 _____

75 000 – 99 999 _____

30 000 – 39 999 _____

100 000 or more _____

In the past 12 months, have you or your partner experienced the following events? If your answer is “yes”, please indicate the person who experienced the event. Also, for each event experienced, evaluate its consequences on your relationship when it occurred using the following scale.

Extremely harmful	Moderately harmful	Slightly harmful	No consequence	Slightly beneficial	Moderately beneficial	Extremely beneficial
1	2	3	4	5	6	7

				Consequences on your relationship						
SD21a.	Pregnancy	0 = No	1 = Yes Me ___ My partner ___	1	2	3	4	5	6	7
SD21b.	Miscarriage	0 = No	1 = Yes Me ___ My partner ___	1	2	3	4	5	6	7
SD21c.	Serious illness or accident	0 = No	1 = Yes Me ___ My partner ___ Children ___ Other ___	1	2	3	4	5	6	7
SD21d.	Being fired from work	0 = No	1 = Yes Me ___ My partner ___	1	2	3	4	5	6	7

SD21e.	Death of a relative or close friend	0 = No	1 = Yes	Me ___	My partner ___	1	2	3	4	5	6	7
SD21f.	An affair	0 = No	1 = Yes	Me ___	My partner ___	1	2	3	4	5	6	7
SD21g.	Other major event?	0 = No	1 = Yes	Me ___	My partner ___	1	2	3	4	5	6	7
Specify:	_____			Children ___	Other ___							
SD21h.	Other major event?	0 = No	1 = Yes	Me ___	My partner ___	1	2	3	4	5	6	7
Specify:	_____			Children ___	Other ___							

In the past 12 months, how often has your child received professional services from one of the following

Never	Rarely	Occasionally	Regularly
1	2	3	4

SD22a.	Physician (paediatrician)	1	2	3	4
SD22b.	Social Worker	1	2	3	4
SD22c.	Other, specify: _____	1	2	3	4

SD23a. Have you and your current partner separated in the past 12 months because of conflicts in the relationship?

1 = Yes

2 = No (skip to question SD24a)

SD23b. How long was your separation, in weeks and days (e.g., 2 weeks and 3 days)?

_____ weeks and _____ days

SD23c. If your answer to question SD23a was « yes », evaluate the consequences of this separation on your relationship when the event occurred.

1 = extremely harmful

5 = slightly beneficial

2 = moderately harmful

6 = moderately beneficial

3 = slightly harmful

7 = extremely beneficial

4 = no consequence

SD23d. If your answer to question SD23a was « yes », why did you and your partner decide to reconcile?

In the past year, have you consulted a mental health professional (i.e. psychologist, social worker, psychiatrist, etc.)...

SD24a. ...alone?

1 = Yes

2 = No (skip to question SD25a)

SD24b. Duration of services (e.g., 1 year and 2 months):

_____ years _____ months

SD25a. ...with your partner?

1 = Yes

2 = No (skip to question SD26a)

SD25b. Duration of services:

_____ years _____ months

SD26a. ...with your family?

1 = Yes

2 = No (skip to question SD27)

SD26b. Duration of services:

_____ years _____ months

SD27. Have you ever needed help from Centers for violent partners or shelters for domestic violence victims?

1 = Yes

2 = No

SD28a. What is your mother tongue?

1 = French

2 = English

3 = Other, specify: _____ (SD28b.)

SD29a. How many years have you lived in Canada?

1 = All my life

OR

2 = Number of years: _____ (SD29b.)

SD30a. What is your racial or ethnic background (circle as many as apply)?

1 = White/Caucasian

2 = Chinese

3 = South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)

4 = Black

7 = Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.)

8 = Arab

9 = West Asian (e.g., Iranian, Afghan, etc.)

10 = Korean

5 = Filipino
 6 = Latin American
 11 = Japanese
 12 = Other, specify: _____ (SD30b.)

Please indicate how frequently you have contact with the following people.

Never	Rarely	Occasionally	Regularly
1	2	3	4

SD31a.	Family	1	2	3	4
SD31b.	Friends	1	2	3	4
SD31c.	Co-workers	1	2	3	4
SD31d.	Professionals (ex. Physician, psychologist, nurse, etc...)	1	2	3	4

Indicate the organized activities your child participates in and where they take place (eg. sport at recreational centre, etc...)

ACTIVITY	LOCATION	NUMBER OF HOURS/WEEK
SD32a. _____	SD32b. _____	SD32c. _____
SD33a. _____	SD33b. _____	SD33c. _____
SD34a. _____	SD34b. _____	SD34c. _____

Who is the target child's primary caregiver? (i.e., who tends to spend the most time with the child, makes the most day to day decisions for the child, etc.)

SD35a. ____ Mother

SD35b. ____ Father

SD35c. ____ Both

SD36a. Is your child currently in school? 1 = Yes 2 = No

(If **YES** please refer to question SD36b., if **NO** please refer to question SD36d.)

SD36b. If you answered **YES**, how long (years/months) has your child been in school?

SD36d. If you answered **NO**, has your child ever been in school? 1 = Yes 2 = No

SD36e. If you answered **NO**, is your child being homeschooled? 1 = Yes 2 = No

What are your family activities (eg. museum, cinema, etc.)?

Nature of Activity

Frequency (eg. Once/Week, Twice/Month, etc.)

SD37a. _____

SD37b. _____

SD38a. _____

SD38b. _____

SD39a. _____

SD39b. _____

INFORMATIONS SOCIO-DÉMOGRAPHIQUES

Le but de ce questionnaire est de recueillir des informations générales concernant votre famille, tel que votre état civil, niveau d'éducation, occupation, statut financier et état de santé. Veuillez répondre à chaque question en encerclant le numéro à côté de la réponse appropriée.

PRIÈRE DE NOTER QUE TOUTE INFORMATION FOURNIE DANS CE QUESTIONNAIRE DEMEURERA CONFIDENTIELLE ET NE SERA UTILISÉE QUE POUR LA RECHERCHE ET À DES FINS ÉDUCATIONNELLES. CES INFORMATIONS CONFIDENTIELLES VONT ÊTRE ANALYSÉES EN GROUPE, RENDANT VOTRE IDENTIFICATION IMPOSSIBLE.

SD1. Indiquez le prénom et nom de famille de votre enfant :

SD2 Indiquez le prénom et nom de famille de la mère: _____

SD3. Indiquez le prénom et nom de famille du père: _____

SD4a. Quelle est votre adresse (Maison)?

_____ SD4b. Code postal: _____

SD4c. Quel est votre numéro de téléphone à la maison: _____

SD4d. Au travail ou cellulaire (père): _____

SD4e. Au travail ou cellulaire (mère): _____

SD4f. Quelle est votre adresse courriel?

SD4g. Quand avez-vous complété le questionnaire (aaaa-mm-jj)? _____

SD4. S.V.P., indiquez le prénom et nom de famille de chaque personne (en vous incluant) qui habite dans votre maison ainsi que la relation de cette personne avec votre enfant (ex. frère, tante) :

SD4h. Prénom et nom de famille: _____ SD4i: Relation avec l'enfant: _____

SD4j. Prénom et nom de famille: _____ SD4k: Relation avec l'enfant: _____

SD4l. Prénom et nom de famille: _____ SD4m: Relation avec l'enfant: _____

SD4n. Prénom et nom de famille: _____ SD4o: Relation avec l'enfant: _____

SD4p. Prénom et nom de famille: _____ SD4q: Relation avec l'enfant: _____

SD4r. Prénom et nom de famille: _____ SD4s: Relation avec l'enfant: _____

SD4t. Prénom et nom de famille: _____ SD4u: Relation avec l'enfant: _____

SD4v. Prénom et nom de famille: _____ SD4w: Relation avec l'enfant: _____

SD5. Indiquez le sexe de votre enfant

1 = Garçon

2 = Fille

SD6. Quel âge à votre enfant, en années et mois? _____ années et _____ mois

SD7a. Quel est votre état civil?

1 = Marié (allez à la question SD7b) _____ années et _____ mois
 2 = Union de fait
 3 = Séparé
 4 = Divorcé
 5 = Célibataire
 6 = Veuf/veuve
 7 = Remarié

SD7b. Depuis combien de temps êtes-vous marié avec votre partenaire?

SD8a. Êtes-vous avec le (la) même partenaire que lors de votre participation dans la première phase de l'étude?

1 = Oui 2 = Non

SD8b.

Depuis combien de temps êtes-vous dans cette relation, en années et mois?

_____ années et _____ mois

SD9. Depuis combien de temps vivez-vous avec votre partenaire, en années et mois?

_____ années et _____ mois

SD10a -g. Quelle est la date de naissance (aaaa-mm-jj) de votre (vos) enfant(s) en commençant par le plus vieux?

1^{er} _____ 2^{ème} _____ 3^{ème} _____
 4^{ème} _____ 5^{ème} _____ 6^{ème} _____
 7^{ème} _____

SD11a Quel est le sexe de votre (vos) enfant(s), en commençant par le plus vieux?

-g. 1^{er} _____ 2^{ème} _____ 3^{ème} _____ 4^{ème} _____ 5^{ème} _____ 6^{ème} _____ 7^{ème} _____

SD12. Combien d'enfants avez-vous avec votre partenaire? _____

SD13. Combien d'enfants avez-vous de relations passées?

SD14. Quel est le nombre de chambre à coucher dans votre résidence? _____

SD15. Êtes-vous propriétaire _____ (SD15a) ou locataire _____ (SD15b) de votre résidence?

SD16. Combien d'années avez-vous vécu à cette adresse? _____

SD17. Combien de fois êtes-vous déménagés au cours des 5 dernières années?

SD18. Indiquez le plus haut niveau de scolarité duquel vous avez obtenu un diplôme.

- SD18a. = Études supérieures 1 2 3 4 5 6
 SD18b. = Université 1 2 3 4
 SD18c. = Collège 1 2 3
 SD18d. = École secondaire 7 8 9 10 11 12
 SD18e. = École primaire 1 2 3 4 5 6
 SD18f. = Dernier diplôme obtenu
 (nom): _____

SD19a. Quelle est votre activité quotidienne principale?

- 1 = Col bleu (construction, travailleur d'usine, travail manuel, etc.) 4 = Sans emploi
 2 = Col blanc (administrateur, avocat, directeur, travail de bureau, ventes, etc.) 5 = Étudiant
 3 = Propriétaire d'entreprise ou travailleur autonome 6 = Parent au foyer
 7 = Autre, spécifiez: _____ (SD19b)

SD19c. En moyenne, combien de jours travaillez-vous/semaine: _____

SD19d. Indiquez tout second emploi que vous avez, si applicable (c.-à-d. autre emploi, bénévolat, loisir, etc.) : _____

SD19e. En moyenne, combien de jours travaillez-vous/semaine à ce second emploi : _____

SD20. Quel est le **revenu brut** de votre famille (avant taxes et déductions)?

- Moins de 10 000 _____ 40 000 - 49 999 _____
 10 000 – 19 999 _____ 50 000 – 74 999 _____
 20 000 – 29 999 _____ 75 000 – 99 999 _____
 30 000 – 39 999 _____ 100 000 ou plus _____

Au cours des 12 derniers mois, est-ce que votre partenaire ou vous-mêmes avez-vécu ces événements? Si votre réponse est "Oui", S.V.P., indiquez quelle personne a vécu cet événement. Aussi, pour chaque événement vécu, évaluez ses conséquences sur votre relation lorsque ce dernier est survenu en utilisant l'échelle suivante.

Extrêmement néfaste	Assez néfaste	Un peu néfaste	Aucune conséquence	Un peu bénéfique	Assez bénéfique	Extrêmement bénéfique
1	2	3	4	5	6	7

Conséquences sur votre relation

SD21a.	Grossesse	0 = Non	1 = Moi ____ Mon (ma) partenaire ____	1	2	3	4	5	6	7
SD21b.	Fausse couche	0 = Non	1 = Moi ____ Mon (ma) partenaire ____	1	2	3	4	5	6	7
SD21c.	Maladie sérieuse ou accident	0 = Non	1 = Moi ____ Mon (ma) partenaire ____ Enfants ____ Autre ____	1	2	3	4	5	6	7
SD21d.	Être congédié du travail	0 = Non	1 = Oui Moi ____ Mon (ma) partenaire ____	1	2	3	4	5	6	7
SD21e.	Mort d'un proche ou ami proche	0 = Non	1 = Oui Moi ____ Mon (ma) partenaire ____	1	2	3	4	5	6	7
SD21f.	Une liaison	0 = Non	1 = Oui Moi ____ Mon (ma) partenaire ____	1	2	3	4	5	6	7
SD21g.	Autre évènement majeur? _____	0 = Non	1 = Oui Moi ____ Mon (ma) partenaire ____ Enfants ____ Autre ____	1	2	3	4	5	6	7
SD21h.	Autre évènement majeur? _____	0 = Non	1 = Oui Moi ____ Mon (ma) partenaire ____ Enfants ____ Autre ____	1	2	3	4	5	6	7

Au cours des 12 mois, à quelle fréquence votre enfant a-t-il reçu des services des professionnels suivants :

	Jamais	Rarement	Occasionnellement	Régulièrement		
	1	2	3	4		
SD22a.	Médecin (pédiatre)		1	2	3	4

SD22b. Travailleur social 1 2 3 4

SD22c. Autre, spécifiez: _____ 1 2 3 4

SD23a. Est-ce que votre partenaire actuel(le) et vous vous êtes séparés au cours des 12 derniers mois à cause de conflits dans votre relation?

1 = Oui

2 = Non (passez à la question SD24a)

SD23b. Combien de temps avez-vous été séparés, en semaines et jours (ex. : 2 semaines et 3 jours)?

_____ semaines et _____ jours

SD23c. Si votre réponse à la question SD23a était « Oui », évaluez les conséquences de cette séparation sur votre relation quand l'évènement s'est produit.

1 = extrêmement néfaste

5 = un peu bénéfique

2 = assez néfaste

6 = assez bénéfique

3 = un peu néfaste

7 = extrêmement bénéfique

4 = aucune conséquence

SD23d. Si votre réponse à la question SD23a était « Oui », pourquoi votre partenaire et vous avez-vous décidé de vous réconcilier?

Au cours de la dernière année, avez-vous consulté un spécialiste en santé mentale (ex. : psychologue, travailleur social, psychiatre, etc.)...

SD24a. ...seul(e)?

1 = Oui

2 = Non (passez à la question SD25a)

SD24b. Durée des services (ex., 1 an et 2 mois):

_____ années _____ mois

SD25a. ...avec votre partenaire?

1 = Oui

2 = Non (passez à la question SD26a)

SD25b. Durée des services:

_____ années _____ mois

SD26a. ...avec votre famille?

1 = Oui

2 = Non (passez à la question SD27)

SD26b. Durée des services:
 _____ années _____ mois

SD27. Avez-vous déjà eu besoin de support de la part de centres pour partenaires violents ou d'abris pour les victimes de violence domestique?

1 = Oui

2 = Non

SD28a. Quelle est votre langue maternelle?
 1 = Français 2 = Anglais 3 = Autre, spécifiez: _____ (SD28b.)

SD29a. Combien d'années avez-vous vécu au Canada?
 1 = Toute ma vie OU 2 = Nombre d'années: _____ (SD29b.)

SD30a. Quelle est votre race ou origine ethnique (encerclez tout ce qui s'applique)?

1 = Blanc/Caucasien	7 = Asiatique du Sud-Est (p. ex., Vietnamien, Cambodgien, Malaisien, Laotien, etc.)
2 = Chinois	8 = Arabe
3 = Sud-Asiatique (p. ex., Indien de l'Inde, Pakistanais, Sri-Lankais, etc.)	9 = Asiatique occidental (p.ex., Iranien, Afghan, etc.)
4 = Noir	10 = Coréen
5 = Philippin	11 = Japonais
6 = Latino-Américain	12 = Autre, spécifiez: _____ (SD30b.)

S.V.P. Indiquez à quelle fréquence vous êtes en contact avec les personnes suivantes.

Jamais	Rarement	Occasionnellement	Régulièrement
1	2	3	4

SD31a.	Famille	1	2	3	4
SD31b.	Amis	1	2	3	4
SD31c.	Collègues de travail	1	2	3	4
SD31d.	Professionnels (ex. : médecin, psychologue, infirmière, etc.)	1	2	3	4

Indiquez les activités organisées auxquelles votre enfant participe, et leur location (ex. sport au centre communautaire, etc.)

ACTIVITÉ	LOCATION	NOMBRE D'HEURES/SEMAINE
SD32a. _____	SD32b. _____	SD32c. _____
SD33a. _____	SD33b. _____	SD33c. _____
SD34a. _____	SD34b. _____	SD34c. _____

Qui s'occupe principalement de l'enfant-cible? (c.-à-d., qui passe généralement le plus de temps avec l'enfant, prend le plus de décisions chaque jour pour l'enfant, etc.)

SD35a. _____ Mère

SD35b. _____ Père

SD35c. _____ Les deux

SD36a. Est-ce que votre enfant va présentement à l'école? 1 = Oui 2 = Non

(Si **OUI**, passez à la question SD36b., si **NON** passez à la question SD36d.)

SD36b. Si vous avez répondu **OUI**, depuis combien de temps (années/mois) est-ce que votre enfant va à l'école? _____

SD36c. Si vous avez répondu **NON**, est-ce que votre enfant a déjà été à l'école?
1 = Oui 2 = Non

SD36d. Si vous avez répondu **NON**, est-ce que votre enfant fait l'école à la maison?
1 = Oui 2 = Non

Quelles sont vos activités familiales (ex. musée, cinéma, etc.)?

Nature de l'activité

Fréquence (ex. 2 fois/semaine, 1 fois/mois, etc.)

SD37a. _____

SD37b. _____

SD38a. _____

SD38b. _____

SD39a. _____

SD39b. _____

Appendix I: English and French Experiences in Close Relationships-12 questionnaire Chapter II
(Study 1 & Study 2) and Chapter III

EXPERIENCES IN CLOSE RELATIONSHIPS - ECR-brief

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience close relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much agree or disagree with it. Circle the number appropriate to your answer, using the following scale.

		Disagree			Neutral/ Mixed			Agree			
		Strongly						Strongly			
		1	2	3	4	5	6	7			
ECR2.	I worry about being abandoned.	1	2	3	4	5	6	7			
ECR 6.	I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5	6	7			
ECR 8.	I worry a fair amount about losing my partner.	1	2	3	4	5	6	7			
ECR 9.	I don't feel comfortable opening up to romantic partners.	1	2	3	4	5	6	7			
ECR 14.	I worry about being alone.	1	2	3	4	5	6	7			
ECR 15.	I feel comfortable sharing my private thoughts and feelings with my partner.	1	2	3	4	5	6	7			
ECR 18.	I need a lot of reassurance that I am loved by my partner.	1	2	3	4	5	6	7			
ECR 24.	If I can't get my partner to show interest in me, I get upset or angry.	1	2	3	4	5	6	7			
ECR 25.	I tell my partner just about everything.	1	2	3	4	5	6	7			
ECR 27.	I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7			
ECR 29.	I feel comfortable depending on romantic partners.	1	2	3	4	5	6	7			
ECR 31.	I don't mind asking romantic partners to comfort,	1	2	3	4	5	6	7			

advice, or help.

Used with the permission of Brennan, Clark and Shaver (1998).

QUESTIONNAIRE SUR LES EXPÉRIENCES AMOUREUSES – ECR-bref_F

Les énoncés suivants se rapportent à ce que vous ressentez à l'intérieur de vos relations amoureuses. Nous nous intéressons à la manière dont vous vivez généralement ces relations et non seulement à ce que vous vivez dans votre relation actuelle. Vous pouvez donc répondre au questionnaire même si vous n'êtes pas dans une relation amoureuse présentement. Répondez à chacun des énoncés en indiquant jusqu'à quel point vous êtes en accord ou en désaccord. Encerchez le chiffre correspondant à votre choix en utilisant l'échelle de mesure suivante :

		Neutre/ Partagé(e)					Fortement en accord	
Fortement en désaccord		1	2	3	4	5	6	7
ECR2_F.	Je m'inquiète à l'idée d'être abandonné(e).	1	2	3	4	5	6	7
ECR6_F.	J'ai peur que mes partenaires amoureux/amoureuses ne soient pas autant attaché(e)s à moi que je le suis à eux/elles.	1	2	3	4	5	6	7
ECR8_F.	Je m'inquiète pas mal à l'idée de perdre mon/ma partenaire.	1	2	3	4	5	6	7
ECR9_F.	Je ne me sens pas à l'aise de m'ouvrir à mon/ma partenaire.	1	2	3	4	5	6	7
ECR14_F.	Je m'inquiète à l'idée de me retrouver seul(e).	1	2	3	4	5	6	7
ECR15_F.	Je me sens à l'aise de partager mes pensées intimes et mes sentiments avec mon/ma partenaire.	1	2	3	4	5	6	7
ECR18_F.	J'ai un grand besoin d'être rassuré(e) de l'amour de mon/ma partenaire.	1	2	3	4	5	6	7
ECR24_F.	Lorsque je n'arrive pas à faire en sorte que mon/ma partenaire s'intéresse à moi, je deviens peiné(e) ou fâché(e).	1	2	3	4	5	6	7
ECR25_F.	Je dis à peu près tout à mon/ma partenaire.	1	2	3	4	5	6	7
ECR27_F.	Habituellement, je discute de mes préoccupations et de mes problèmes avec mon/ma partenaire.	1	2	3	4	5	6	7

ECR29_F.	Je me sens à l'aise de dépendre de mes partenaires amoureux/amoureuses.	1	2	3	4	5	6	7
ECR31_F.	Cela ne me dérange pas de demander du réconfort, des conseils ou de l'aide à mes partenaires amoureux/amoureuses.	1	2	3	4	5	6	7

Développé par Brennan, Clark, & Shaver (1998). Traduit et adapté par Lussier (1997). Traduction française modifiée par Lafontaine (2008).

SELF-ESTEEM SCALE (SES)

Below is a list of statements dealing with your general feelings about yourself. Circle the number appropriate to your answer, using the following rating scale:

	Strongly Agree	Agree	Disagree	Strongly Disagree
	1	2	3	4
1.	On the whole, I am satisfied with myself.			
2.	At times, I think I am no good at all.			
3.	I feel that I have a number of good qualities.			
4.	I am able to do things as well as most other people.			
5.	I feel I do not have much to be proud of.			
6.	I certainly feel useless at times.			
7.	I feel that I am a person of worth, at least on an equal plane with others.			
8.	I wish I could have more respect for myself.			
9.	All in all, I am inclined to feel that I am a failure.			
10.	I take a positive attitude towards myself.			

Developed by Morris Rosenberg (1965)

L'ÉCHELLE DE L'ESTIME DE SOI (EES)

Pour chacune des caractéristiques ou descriptions suivantes, indiquez à quel point chacune est vraie pour vous en encerclant le chiffre approprié.

	Tout à fait en désaccord	Plutôt en désaccord	Plutôt en accord	Tout à fait en accord
	1	2	3	4
1.	Je pense que je suis une personne de valeur, au moins égal(e) à n'importe qui d'autre.			1 2 3 4
2.	Je pense que je possède un certain nombre de belles qualités.			1 2 3 4
3.	Tout bien considéré, je suis porté(e) à me considérer comme un(e) raté(e).			1 2 3 4
4.	Je suis capable de faire les choses aussi bien que la majorité des gens.			1 2 3 4
5.	Je sens peu de raisons d'être fier(e) de moi.			1 2 3 4
6.	J'ai une attitude positive vis-à-vis moi-même.			1 2 3 4
7.	Dans l'ensemble, je suis satisfait(e) de moi.			1 2 3 4
8.	J'aimerais avoir plus de respect pour moi-même.			1 2 3 4
9.	Parfois je me sens vraiment inutile.			1 2 3 4
10.	Il m'arrive de penser que je suis un(e) bon(ne) à rien.			1 2 3 4

Developed by Morris Rosenberg (1965). Traduit et validé par Evelyne F. Vallières et Robert J. Vallerand (1990).

Appendix J: English and French Outcome Questionnaire Chapter II (Study 1 & Study 2)

OUTCOME QUESTIONNAIRE - OQ

Looking back over the last week, including today, please help us understand how you have been feeling. Read each item carefully and circle the number in the column that best describes your current situation. For this questionnaire, “work” is defined as employment, school, housework, volunteer work and so forth.

Please answer the questions below according to the following scale.

	Never	Rarely	Sometimes	Frequently	Almost always
	0	1	2	3	4
OQ1. I get along well with others.	0	1	2	3	4
OQ2. I tire quickly.	0	1	2	3	4
OQ3. I feel no interest in things.	0	1	2	3	4
OQ4. I feel stressed at work (or school).	0	1	2	3	4
OQ5. I blame myself for things	0	1	2	3	4
OQ6. I feel irritated	0	1	2	3	4
OQ7. I feel unhappy in my marriage/significant relationship.	0	1	2	3	4
OQ8. I have thoughts of ending my life.	0	1	2	3	4
OQ9. I feel weak.	0	1	2	3	4
OQ10. I feel fearful.	0	1	2	3	4
OQ11. After heavy drinking, I need a drink the next morning to get going (If you don't drink, choose the number for "never").	0	1	2	3	4
OQ12. I find my work/school satisfying.	0	1	2	3	4
OQ13. I am a happy person.	0	1	2	3	4

OQ14.	I work/study too much.	0	1	2	3	4
-------	------------------------	---	---	---	---	---

OQ15.	I feel worthless.	0	1	2	3	4
-------	-------------------	---	---	---	---	---

OQ16.	I am concerned about my family troubles.	0	1	2	3	4
-------	--	---	---	---	---	---

Never	Rarely	Sometimes	Frequently	Almost always
0	1	2	3	4

OQ17.	I have an unfulfilling sex life.	0	1	2	3	4
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OQ18.	I feel lonely.	0	1	2	3	4
-------	----------------	---	---	---	---	---

OQ19.	I have frequent arguments.	0	1	2	3	4
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OQ20.	I feel loved and wanted.	0	1	2	3	4
-------	--------------------------	---	---	---	---	---

OQ21.	I enjoy my spare time.	0	1	2	3	4
-------	------------------------	---	---	---	---	---

OQ22.	I have difficulty concentrating.	0	1	2	3	4
-------	----------------------------------	---	---	---	---	---

OQ23.	I feel hopeless about the future.	0	1	2	3	4
-------	-----------------------------------	---	---	---	---	---

OQ24.	I like myself.	0	1	2	3	4
-------	----------------	---	---	---	---	---

OQ25.	Disturbing thoughts come into my mind that I cannot get rid of.	0	1	2	3	4
-------	---	---	---	---	---	---

OQ26.	I feel annoyed by people who criticize my drinking (<i>If you don't drink, choose the number for "never"</i>).	0	1	2	3	4
-------	--	---	---	---	---	---

OQ27.	I have an upset stomach.	0	1	2	3	4
-------	--------------------------	---	---	---	---	---

OQ28.	I am not working/studying as well as I used to.	0	1	2	3	4
-------	---	---	---	---	---	---

OQ29.	My heart pounds too much.	0	1	2	3	4
-------	---------------------------	---	---	---	---	---

OQ30.	I have trouble getting along with my friends and acquaintances.	0	1	2	3	4
-------	---	---	---	---	---	---

OQ31.	I am satisfied with my life.	0	1	2	3	4
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OQ32.	I have trouble at work/school because of drinking or drug use	0	1	2	3	4
-------	---	---	---	---	---	---

(If not applicable, choose the number for “never”).

OQ33.	I feel that something bad is going to happen.	0	1	2	3	4
OQ34.	I have sore muscles.	0	1	2	3	4
OQ35.	I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.	0	1	2	3	4
OQ36.	I feel nervous.	0	1	2	3	4
OQ37.	I feel my love relationships are full and complete.	0	1	2	3	4
OQ38.	I feel that I am not doing well at work/school.	0	1	2	3	4
OQ39.	I have too many disagreements at work/school.	0	1	2	3	4
OQ40.	I feel something is wrong with my mind.	0	1	2	3	4
OQ41.	I have trouble falling asleep or staying asleep.	0	1	2	3	4

Never	Rarely	Sometimes	Frequently	Almost always
0	1	2	3	4

OQ42.	I feel blue.	0	1	2	3	4
OQ43.	I am satisfied with my relationship with others.	0	1	2	3	4
OQ44.	I feel angry enough at work/school to do something I might regret.	0	1	2	3	4
OQ45.	I have headaches.	0	1	2	3	4

The OQ-45 was developed by Michael J. Lambert, PhD, and Gary M. Burlingame, PhD.

American Professional Credentialing Services, 1996.

MESURE D'IMPACT - 45.2 (OQ_F)

Essayez de nous indiquer comment vous vous êtes senti(e) **au cours des sept (7) derniers jours, y compris aujourd'hui**. Lisez chaque énoncé attentivement et encerclez le numéro qui se situe sous la catégorie qui décrit le mieux votre situation actuelle. Dans ce questionnaire, le travail est défini en tant qu'emploi, études, travail ménager, bénévolat, etc.

	Jamais	Rarement	Parfois	Fréquemment	Presque toujours
	0	1	2	3	4
OQ1_F.	Je m'entends bien avec mon entourage.				0 1 2 3 4
OQ2_F.	Je me fatigue rapidement.				0 1 2 3 4
OQ3_F.	Rien ne m'intéresse.				0 1 2 3 4
OQ4_F.	Je me sens stressé(e) au travail <i>ou</i> à l'école.				0 1 2 3 4
OQ5_F.	J'ai tendance à me blâmer.				0 1 2 3 4
OQ6_F.	Je me sens irritable.				0 1 2 3 4
OQ7_F.	Je me sens malheureux/malheureuse dans ma relation amoureuse.				0 1 2 3 4
OQ8_F.	J'ai des pensées suicidaires.				0 1 2 3 4
OQ9_F.	Je me sens faible.				0 1 2 3 4
OQ10_F.	Je me sens craintif/craintive.				0 1 2 3 4
OQ11_F.	Après avoir bu beaucoup, j'ai besoin d'un verre de boisson le lendemain matin pour commencer ma journée (<i>si vous ne consommez pas d'alcool, indiquez « jamais »</i>).				0 1 2 3 4
OQ12_F.	Je trouve mon travail <i>ou</i> l'école satisfaisant(e).				0 1 2 3 4
OQ13_F.	Je suis une personne heureuse.				0 1 2 3 4
OQ14_F.	Je travaille <i>ou</i> j'étudie trop.				0 1 2 3 4
OQ15_F.	Je me sens inutile.				0 1 2 3 4

	Jamais	Rarement	Parfois	Fréquemment	Presque toujours
	0	1	2	3	4
OQ16_F. Je suis préoccupé(e) par des problèmes familiaux.	0	1	2	3	4
OQ17_F. Ma vie sexuelle n'est pas satisfaisante.	0	1	2	3	4
OQ18_F. Je me sens seul(e).	0	1	2	3	4
OQ19_F. Je me dispute souvent.	0	1	2	3	4
OQ20_F. Je me sens aimé(e) et apprécié(e).	0	1	2	3	4
OQ21_F. J'aime mon temps libre.	0	1	2	3	4
OQ22_F. J'ai de la difficulté à me concentrer.	0	1	2	3	4
OQ23_F. J'ai perdu espoir en l'avenir.	0	1	2	3	4
OQ24_F. Je m'aime.	0	1	2	3	4
OQ25_F. Des pensées troublantes dont je ne peux pas me débarrasser me viennent à l'esprit.	0	1	2	3	4
OQ26_F. Je suis contrarié(e) lorsque les gens critiquent ma consommation d'alcool ou de drogues (<i>indiquez « jamais » si cet énoncé ne s'applique pas</i>).	0	1	2	3	4
OQ27_F. J'ai des troubles de digestion.	0	1	2	3	4
OQ28_F. Je ne travaille <i>ou</i> je n'étudie pas aussi bien qu'auparavant.	0	1	2	3	4
OQ29_F. Mon coeur bat trop fort.	0	1	2	3	4
OQ30_F. J'ai de la difficulté à bien m'entendre avec des ami(e)s et des connaissances proches.	0	1	2	3	4
OQ31_F. Je suis satisfait(e) de ma vie.	0	1	2	3	4
OQ32_F. J'ai de la difficulté au travail ou à l'école à cause de ma consommation d'alcool ou de drogues (<i>indiquez « jamais » si cet énoncé ne s'applique pas</i>).	0	1	2	3	4
OQ33_F. J'ai le sentiment que quelque chose de mauvais va se produire.	0	1	2	3	4

OQ34_F.	Mes muscles sont endoloris.	0	1	2	3	4
OQ35_F.	J'ai peur des grands espaces, de conduire, ou d'être dans un autobus, un métro, etc.	0	1	2	3	4
OQ36_F.	Je me sens nerveux/nerveuse.	0	1	2	3	4
OQ37_F.	Mes relations avec mes proches sont pleinement satisfaisantes.	0	1	2	3	4
OQ38_F.	Je sens que je ne réussis pas bien au travail <i>ou</i> à l'école.	0	1	2	3	4

Jamais	Rarement	Parfois	Fréquemment	Presque toujours
0	1	2	3	4

OQ39_F.	J'ai trop de désaccords au travail <i>ou</i> à l'école.	0	1	2	3	4
OQ40_F.	Je sens que quelque chose ne marche pas bien dans mon esprit (dans ma tête).	0	1	2	3	4
OQ41_F.	J'ai de la difficulté à m'endormir ou à rester endormi(e).	0	1	2	3	4
OQ42_F.	Je me sens déprimé(e) (triste).	0	1	2	3	4
OQ43_F.	Je suis satisfait(e) de mes relations avec les autres.	0	1	2	3	4
OQ44_F.	Je me sens suffisamment fâché(e) au travail <i>ou</i> à l'école pour faire quelque chose que je pourrais regretter.	0	1	2	3	4
OQ45_F.	J'ai des maux de tête.	0	1	2	3	4

Cette version française autorisée du Outcome Questionnaire (OQ-45.2, dont les auteurs sont Michael J. Lambert, PhD et Gary M. Burlingame, PhD), fut établie par le Centre de recherche sur les services communautaires, Université d'Ottawa. ©American Professional Credentialing Services, 1996.

Appendix K: University of Ottawa Office of Research Ethics and Integrity Ethics Approval Certificate

File Number: 12-04-05B

Date (mm/dd/yyyy): 03/25/2011



Université d'Ottawa **University of Ottawa**
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement and other applicable laws and regulations in Ontario, has examined and approved the application for ethical approval for the above named research project as of the Ethics Approval Date indicated for the period above and subject to the conditions listed the section above entitled "Special Conditions / Comments".

During the course of the study the protocol may not be modified without prior written approval from the REB except when necessary to remove subjects from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the study (e.g. change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, information/consent documentation, and/or recruitment documentation, should be submitted to this office for approval using the "Modification to research project" form available at:
http://www.rges.uottawa.ca/ethics/application_dwn.asp

Please submit an annual status report to the Protocol Officer 4 weeks before the above-referenced expiry date to either close the file or request a renewal of ethics approval. This document can be found at:
http://www.rges.uottawa.ca/ethics/application_dwn.asp

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5841 or by e-mail at: ethics@uOttawa.ca.

Appendix L: Consent form Chapter III

Consent form

Successful couple relationships: Personal and relationship factors

I am invited to participate in the above-mentioned research study conducted by the *Couple Research Lab* at the University of Ottawa under the direction of Dr. Marie-France Lafontaine. This project is funded by the Social Sciences and Humanities Research Council of Canada.

I understand that the purpose of the study is to better understand individuals' functioning in their couple relationships. My participation will consist essentially of a 2 ½ hours testing session during which I will complete a questionnaire, and participate in a 15-minute videotaped discussion on a topic that is a source of conflict in my relationship.

The questionnaires cover a number of topics related to my background information, how I resolve conflicts with my partner, my personal and relationship profile, my fear of my partner, my attachment in close relationships, my couple satisfaction, my trust in my partner, my social support behaviours, and my empathy. When answering the questions, I will be asked to answer them as honestly and accurately as possible. I understand that there are no right or wrong answers. What is asked of me is simply my honest opinion.

I understand that some questions and the participation in the filmed discussion may cause some discomfort. Of course, I am not obligated to answer any questions or to participate in the filmed discussion if I do not feel comfortable doing so. I also understand that if I feel tired during the testing session, I can ask for a break.

My participation in this study will contribute to the development of more comprehensive models of well-being and distress in the context of couple relationships.

I have been assured by the researcher that the information I will share will remain strictly confidential. I understand that the information will be used only for a research purpose and that confidentiality will be respected. My partner and I will be assigned identification numbers and only these numbers will appear on the questionnaires and consent forms. The consent forms and questionnaires will be stored separately in a locked cabinet (Couple Research Lab; 120 University) to ensure anonymity and only my identification number will be entered in the database on the computer. Moreover, my filmed discussion will be recorded on a DVD that will also be stored in a locked cabinet.

At the end of the testing session, my partner and I will receive 40\$ (40\$ per couple) in order to compensate for our time and transportation fees. The research laboratory will also pay for our parking fees.

I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be either destroyed or used for research purpose, at my convenience.

If I have any questions about the study, I may contact the researchers at 613-562-5800, ext. 4471. If I need help, I can contact the **Distress Centre of Ottawa and Region** at 613-238-3311, the **Victim Crisis Offices**, Ottawa Police Service at 613-236-1222, and the **Anti-Violence Program Family Services** at 613-725-3601. If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 159, (613) 562-5841 or ethics@uottawa.ca.

I, _____, agree to participate in the above research study conducted by the *Couple Research Lab* at the University of Ottawa under the direction of Dr. Marie-France Lafontaine.

There are two copies of the consent form, one of which is for me to keep.

Name of the participant	Participant's signature
(Please print)	
Sex of the Participant: Male <input type="checkbox"/> Female <input type="checkbox"/>	Date: _____

 Researcher's signature

- I am interested in the results of this study and wish to receive the *Couple Research Lab Newsletter*.
- E-mail: _____
- I do not have an E-mail address; please send it through regular mail.

In a few months, I may be contacted again in order to evaluate long-term effects of people's opinions. In the second phase of the study, I will be asked to participate in similar tasks.

- I **accept** to be contacted again to participate in the second phase of the study.
- I **refuse** to be contacted again to participate in the second phase of the study.

If you plan to move soon, please indicate the name and phone number of a relative or a friend that we could contact in order to be able to contact you at a later point in time.

Name of a relative or a friend

(____) _____

Phone number

Appendix M: Resource sheet Chapter III

RESOURCE SHEET**Couple Research Laboratory**

Thank you very much for having participated in our study. Your time and honesty was greatly appreciated.

Having responded to the questionnaires and participated in the discussion about a topic that is a source of conflict with your partner may have prompted you to have some questions about your relationship satisfaction. You may also have had some questions about your mental health in general. The following resources allow you to seek out information to respond to your questions, or to contact a therapist in the Ottawa region to discuss your concerns.

Please note that we do not endorse any specific service or treatment.

If you need to talk to someone immediately, you can call the Ottawa Distress Centre phone-line: 613-238-3311

THERAPISTS IN THE OTTAWA REGION**Centre for Psychological Services**

(couple and individual therapy)

University of Ottawa

(613) 562-5289

Gilmour Psychological Services

(couple and individual therapy)

437 Gilmour

Ottawa, K2P 0R5

(613) 230-4709

The Ottawa Couple and Family Institute

(couple therapy)

1869 Carling Avenue, Suite 201

Ottawa, K2A 1E6

(613) 722-5122

<http://www.ocfi.ca/>

Appendix N: Sociodemographic questionnaire Chapter III

SOCIO DEMOGRAPHIC INFORMATION

The following questionnaire involves gathering information with respect to your socio demographic background. For each question, please circle the number beside the appropriate answer.

SD1. Indicate your sex.

1 = Male

2 = Female

SD2a. How many years have you lived in Canada?

1 = All my life

OR

2 = Number of years: _____ (SD2b)

SD2c. What is your racial or ethnic background (circle as many as apply)?

1 = White/Caucasian

4 = Latino or Hispanic

2 = Black (e.g., Haitian,

5 = Pacific Islander

African,

6 = Middle Eastern

Jamaican, Somali)

7 = Native Canadian/First nations/Métis

3 = Asian (e.g., Chinese,

8 = Other, specify: _____ (SD2d)

East Indian,

Japanese, Vietnamese)

SD3. Indicate the highest educational degree you have received.

1 = University

2 = College

3 = High school

4 = Primary school

SD4. What is your main daily activity?

1 = Blue collar (construction, manœuvre, factory worker, manual work, etc.)

4 = Unemployed

5 = Student

2 = White collar

6 = Stay at home

(administrator, lawyer,

7 = Other, specify: _____ (SD4a)

director, office work,

sales, etc.)

3 = Enterprise owner or self-

worker

SD5. What is your annual personal gross revenue (before tax and deductions)?

SD6. Have you or your partner been pregnant in the past 12 months?

1 = Yes

2 = No (skip to question SD8)

SD7. If your answer to the previous question was « yes », evaluate the consequences of this pregnancy on your relationship when the event occurred.

- | | |
|------------------------|---------------------------|
| 1 = extremely harmful | 5 = slightly beneficial |
| 2 = moderately harmful | 6 = moderately beneficial |
| 3 = slightly harmful | 7 = extremely beneficial |
| 4 = no consequence | |

SD8. Have you and your current partner separated in the past 12 months because of conflicts in the relationship?

- | | |
|---------|--------------------------------|
| 1 = Yes | 2 = No (skip to question SD10) |
|---------|--------------------------------|

SD9. If your answer to the previous question was « yes », evaluate the consequences of this separation on your relationship when the event occurred.

- | | |
|------------------------|---------------------------|
| 1 = extremely harmful | 5 = slightly beneficial |
| 2 = moderately harmful | 6 = moderately beneficial |
| 3 = slightly harmful | 7 = extremely beneficial |
| 4 = no consequence | |

In the past year, have you consulted a mental health professional (psychologist, social worker, psychiatrist, etc.)...

SD10. ...alone?

- | | |
|---------|--------------------------------|
| 1 = Yes | 2 = No (skip to question SD11) |
|---------|--------------------------------|

SD10b. Duration of services (e.g., 1 year and 2 months):

_____ years _____ months

SD11. ...with your partner?

- | | |
|---------|--------------------------------|
| 1 = Yes | 2 = No (skip to question SD12) |
|---------|--------------------------------|

SD11b. Duration of services:

_____ years _____ months

SD12. ...with your family?

- | | |
|---------|--------------------------------|
| 1 = Yes | 2 = No (skip to question SD13) |
|---------|--------------------------------|

SD12b. Duration of services:

_____ years _____ months

SD13. Have you ever needed help from Centers for violent partners or shelters for domestic violence victims?

- | | |
|---------|--------|
| 1 = Yes | 2 = No |
|---------|--------|

Appendix O: Dyadic Trust Scale Chapter III

DYADIC TRUST SCALE (DTS)

Please circle one answer for each statement. Please answer all statements.

	Very strongly agree	Strongly agree	Mildly agree	Neutral	Mildly disagree	Strongly disagree	Very strongly disagree				
	1	2	3	6	5	6	7				
DTS1.	My partner is primarily interested in his (her) own welfare.				1	2	3	4	5	6	7
DTS2.	There are times when my partner cannot be trusted.				1	2	3	4	5	6	7
DTS3.	My partner is perfectly honest and truthful with me.				1	2	3	4	5	6	7
DTS4.	I feel that I can trust my partner completely				1	2	3	4	5	6	7
DTS5.	My partner is truly sincere in his (her) promises.				1	2	3	4	5	6	7
DTS6.	I feel that my partner does not show me enough consideration.				1	2	3	4	5	6	7
DTS7.	My partner treats me fairly and justly.				1	2	3	4	5	6	7
DTS8.	I feel that my partner can be counted on to help me.				1	2	3	4	5	6	7

Used with the permission Larzelere and Huston (1980).

Appendix P: Dyadic Adjustment Scale-4 Chapter III

DYADIC ADJUSTMENT SCALE-4

All the time	Most of the time	More often than not	Occasionally	Rarely	Never
0	1	2	3	4	5

1.	How often do you discuss or have you considered divorce, separation, or terminating your relationship?	0	1	2	3	4	5
2.	In general, how often do you think that things between you and your partner are going well?	0	1	2	3	4	5
3.	Do you confide in your mate?	0	1	2	3	4	5

4. The dots on the following line represent different degrees of happiness in your relationship. The middle point, “happy”, represents the degree of happiness of most relationships. Please circle the number which best describes the degree of happiness, all things considered, of your relationship.



Extremely unhappy	Fairly unhappy	A little unhappy	Happy	Very happy	Extremely happy	Perfect
0	1	2	3	4	5	6

Used with the permission of Y. Lussier, Sabourin, Valois, and Lussier (2005)