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## The Contribution of Attachment Styles and Reassurance Seeking to Daily Mood and Relationship Quality in Romantic Couples

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Graduate Program in Psychology  
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of  
Philosophy  
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THE CONTRIBUTION OF ATTACHMENT STYLES AND REASSURANCE SEEKING  
TO DAILY MOOD AND RELATIONSHIP QUALITY IN ROMANTIC COUPLES

(Thesis format: Monograph)

by

Lyndsay Evraire

Graduate Program in Clinical Psychology

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy in Psychology

The School of Graduate and Postdoctoral Studies  
The University of Western Ontario  
London, Ontario, Canada

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## Abstract

Excessive reassurance seeking (ERS), defined as the stable tendency to excessively and persistently seek assurances from others, has recently emerged as a possible risk factor for interpersonal distress and depression. An important limitation in the ERS literature concerns the mechanism(s) by which individuals engage in ERS. The current daily diary study was among the first to examine the daily relationships among ERS, mood, and relationship quality in romantic couples, and explore how these associations were moderated by individual and partner attachment styles. **Method:** A sample of 110 heterosexual couples completed measures of attachment, ERS, symptoms of depression, and relationship quality. **Results:** In line with prior research, an anxious attachment style was associated with higher daily ERS, and an avoidant attachment style with lower daily ERS. Lower levels of trust were also associated with greater daily ERS, whereas higher relationship quality was related to greater daily ERS in men, and lower daily ERS in women. This study extended the literature by demonstrating that for women with an anxious attachment style, and men with an avoidant attachment style, ERS was related to lower next day trust. In contrast, the partners of men with an avoidant attachment style, who also engaged in ERS, reported higher levels of next day trust. This study was also the first to examine how individual attachment styles influenced the perception of, and reactions to, ERS. Women with an anxious attachment style liked when their male partners engaged in ERS, as illustrated by higher levels of reported trust. **Conclusion:** These results support the idea that attachment styles play an important role in determining whether or not ERS leads to negative interpersonal consequences. They also suggest that it is not the behaviour or frequency of ERS per se that is associated with negative relational outcomes; rather, it is the combination of relationship insecurities and ERS that leads to negative social consequences. The ERS model may need to

be re-conceptualized to account for the notion that there may be both secure and insecure forms of reassurance seeking, with the insecure leading to negative psychological or interpersonal outcomes.

**Keywords:** Reassurance Seeking; Depression; Dysphoria; Attachment Styles; Relationship Dynamics; Daily Diary

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## **Introduction**

Major depressive disorder (MDD) is one of the most prevalent mental health disorders worldwide. In Canada, studies have shown that 7.9% to 8.6% of individuals over the age of 18 meet criteria for lifetime prevalence of major depression (Canadian Psychiatric Association, 2001). Current epidemiological data also suggest that depression is a recurrent condition with between 50-85% of individuals diagnosed with MDD experiencing multiple episodes; the risk for recurrence increases with each successive episode (Keller & Boland, 1998; Monroe & Harkness, 2011). Given that depression is a highly prevalent and recurrent phenomenon, identifying the specific mechanisms involved in its chronicity is particularly important.

### **The Interpersonal Nature of Depression**

Interpersonal factors are among the strongest predictors of the course and duration of an episode of depression (Brown & Moran, 1994; Hooley & Teasdale, 1989; Lara, Leader, & Klein, 1997). Satisfying and supportive relationships often protect individuals from the detrimental impact of psychosocial stress. Relationships that lack satisfaction and support, however, may themselves represent sources of disappointment and frustration that can exacerbate risk for depression. Researchers have documented a strong and reliable association between depression and distressed intimate relationships across a variety of populations (clinical versus community) and measurement instruments (Rehman, Gollan, & Mortimer, 2008; Whisman, 2001). For example, marital dissatisfaction accounts for 18% of the variance of wives' symptoms of depression, and 14% of husbands' symptoms (Whisman, 2001), and couples with a member suffering from depression tend to rate their marriages as less satisfactory (Gotlib & Whiffen, 1989).

Couple interactions play an important role in the onset, maintenance, and exacerbation of depression. For example, both lack of support from a partner, and loss of a romantic relationship are predictive of an increased risk for, and onset of major depression (Wade & Kendler, 2000). Patients suffering from MDD report increased levels of interpersonal distress, and are significantly more distressed by interpersonal problems than are normative samples (Barrett & Barber, 2007). Depression is also associated with poor adaptive functioning in both dating and married couples. The close relationships of individuals with depression are often characterized by increased negative communication behaviours (e.g., blame, verbal aggression, self-derogatory statements) and decreased positive communication behaviours (e.g., smiling, problem-solving behaviours, self-disclosure; for a review see Rehman et al., 2008). Couples with a depressed partner perceive their interactions as negative, and individuals with depression report greater self-blame and hopelessness following interactions (Jackman-Cram, Dobson, & Martin, 2006; Whisman, Weinstock, & Uebelacker, 2002). Not only is depression associated with subsequent divorce, but the divorce rate among individuals who have been treated for depression is also 9 times higher than the expected rate for the population (Kessler et al., 2003; Merikangas, 1984). Furthermore, 84% of individuals treated for depression show a negative course of marital change over a 4 year period (Gotlib & Whiffen, 1989).

Depression and interpersonal dysfunction appear inextricably linked: the empirical evidence suggests that interpersonal difficulties both precede and follow depressive episodes (for a review, see Davila, Stroud, & Starr, 2009; Rehman et al., 2008). Given the well documented association between depression and relationship dissatisfaction, researchers have begun to examine questions that seek to provide a more refined understanding of these associations by identifying specific interpersonal mechanisms associated with depression.

Interpersonal behaviours, such as the inappropriate solicitation of interpersonal feedback through excessive reassurance seeking (ERS), have recently emerged as possible risk factors for interpersonal rejection and subsequent increases in symptomatology (Davila et al., 2009). However, the relations among ERS, subsequent interpersonal distress, and depression have not been delineated clearly and an integrative understanding of these behaviours is needed.

### **ERS in Depression**

ERS is defined as “the relatively stable tendency to excessively and persistently seek assurances from others that one is lovable and worthy, regardless of whether such assurance has already been provided” (Joiner, Metalsky, Katz, & Beach, 1999, p. 270). According to Coyne’s (1976) interpersonal theory of depression, individuals with mild depression, in response to their symptoms of guilt and low self-worth, seek reassurance from close others to test the security of their relationships. In the beginning, others willingly provide the requested support; however, if the individual with depression begins to question the authenticity of the feedback, and increases his or her reassurance seeking behaviour, close others become frustrated and reject the individual with depression (Joiner, Alfano, & Metalsky, 1992). The subsequent deterioration of close relationships leads to an exacerbation of symptoms and creates an environment of social isolation in which the individual with depression cannot receive the necessary support to overcome his or her disorder (Joiner & Metalsky, 2001).

**ERS and depression.** The most recent meta-analysis that examined the relationship between ERS and depression (Starr & Davila, 2008), revealed a significant, medium effect size of .32 across 38 studies ( $N = 6, 973$ ) each of which had a cross-sectional correlation coefficient between ERS and depression; higher levels of ERS were associated with more depressive symptoms. A number of prospective studies also exist and support a positive

relationship between baseline ERS and future symptoms of depression (Davila, 2001; Evraire & Dozois, 2014; Haeffel, Voelz, & Joiner, 2007; Joiner & Metalsky, 2001; Joiner & Schmidt, 1998; Katz, Beach, & Joiner, 1998; Potthoff, Holahan, & Joiner, 1995; Shaver, Schachner, & Mikulincer, 2005). In the context of close relationships, the symptoms of depression of both an individual and his or her partner are positively associated with the individual's reassurance-seeking behaviour observed in live conversations (Knobloch, Knobloch-Fedders, & Durbin, 2011).

**ERS, interpersonal stress, and depression.** Starr and Davila (2008) also examined the relationship between ERS and interpersonal rejection and found a weak but significant effect size of .14 across 16 studies ( $N = 2, 596$ ), with higher ERS predicting more rejection. Rejection was conceptualized as an unwillingness to interact, a negative appraisal of others' worth, or relationship dissatisfaction. Furthermore, measures of rejection were either reported by close others or were based on the target's perception (how rejection was assessed did not influence the effect size for ERS and interpersonal rejection). Although weak, the relationship between ERS and interpersonal rejection is revealing - individuals who suffer from depression, who also engage in ERS, tend to be at particularly high risk for negative evaluation by close others (Pettit & Joiner, 2006). In contrast, individuals with symptoms of depression but low levels of ERS, or anxious individuals with high levels of ERS, do not tend to be evaluated negatively (Joiner & Metalsky, 1995; Pettit & Joiner, 2006). When signaled to others via ERS, the symptoms of depression, including hopelessness and a sense of desperation (rather than symptoms of anxiety), appear to yield negative interpersonal consequences. Thus, ERS may play a unique role in the interpersonal expression of the aversive qualities of depression.

Lemay and Cannon (2012) sought to further understand the interpersonal dynamics of ERS by examining responses to manipulated perceptions of a romantic partner's ERS as a function of his or her symptoms of depression. When partners' symptoms of depression were relatively high (1 to 2 *SDs* above the mean), individuals reported more frustration and less acceptance of their partners when they were led to believe that they had engaged in ERS; effects on acceptance were partially mediated by levels of frustration. In contrast, when their partners had very few symptoms of depression, individuals reported less frustration and greater acceptance when they thought their partners had sought reassurance. In addition, these negative reactions to manipulated ERS were dependent on the individual's concerns about regulating his or her dysphoric partner's affect and feelings of security. The heightened insecurity of individuals with depression, often leads their partners to feel subjective pressure to regulate the dysphoric partner's feelings, suppress negative behaviours that could potentially upset them, and provide false reassurance or support (Coyne 1976; Segrin & Abramson, 1994). However, feeling responsible for regulating the affect of an individual with depression can also lead to negative reactions especially when such attempts are unsuccessful (Notarius & Herrick, 1988; Perrine, 1993). Along these lines, individual respondents who were concerned about regulating their partner's security reported more frustration and less acceptance after being led to believe that their dysphoric partner had engaged in ERS. Individuals did not report these negative reactions to manipulated ERS from dysphoric partners in the absence of concern about regulating their partner's security. These results replicate research that suggests it is the combination of depression and ERS that predicts interpersonal rejection (e.g., Joiner et al., 1992; Pettit & Joiner, 2006). Such findings also imply that ERS may be especially aversive for individuals who feel pressure to control



the affect and security of their partners suffering from depression, who have also experienced a lack of success in assuaging their partners' insecurities.

Recent developments in the stress generation literature are also particularly relevant to Coyne's (1976) interpersonal theory of depression. Hammen (1991) used the term *stress generation* to describe individuals with depression who behave in ways that generate stress in their interpersonal environments and, subsequently, exacerbate their own symptoms of depression. Hammen demonstrated a stress generation effect such that women with a diagnosis of unipolar depression experienced higher levels of stressful life events, particularly interpersonal stressors that they themselves had contributed to, compared to women with bipolar disorder, a chronic medical illness, or healthy controls. This stress generation effect has been replicated in a number of studies (e.g., Davila, Bradbury, Cohan & Tochluk, 1997; Hammen, 2006; Hammen & Brennan, 2001, 2002; Hammen & Shih, 2008; Potthoff, et al., 1995). Although depression is a robust predictor of stress generation, it is not the only contributing factor. Hammen (1991) found, for instance, that even individuals with a history of depression, who were not currently experiencing an episode of depression, contributed to the generation of stressors. As such, the behaviours and personal characteristics of individuals with depression, and/or a history of the disorder, may play an important role in elevating rates of stress generation. Consistent with this idea, greater reassurance seeking behaviour was associated with a greater occurrence of dependent interpersonal stress (Eberhart & Hammen, 2009; Potthoff et al., 1995; Shih & Auerbach, 2010). More specifically, reassurance seeking has been associated with spouse-related but not roommate-related stress (Shahar, Joiner, Zuroff, & Blatt, 2004). Reassurance seeking is likely related conceptually to stress generation since an individual's excessive efforts to

check on the relationship may frustrate close others, leading to both rejection and increased conflict.

The deterioration of the interpersonal relationships of individuals who engage in ERS leaves them without a social support network and thus vulnerable to stressful situations and to developing a sense of hopelessness and depressed mood (Joiner et al., 1999; Timmons & Joiner, 2008). Congruent with this hypothesis, individuals with high levels of reassurance seeking behaviour, who also experienced an interpersonal (e.g., rejection by a close other) or achievement (e.g., receiving a low grade on an exam) stressor, were more likely than low reassurance seekers who experienced the same stressor to exhibit increases in depressive symptoms (Joiner & Metalsky, 1995; Joiner & Schmidt, 1998). That is, the additive combination of high ERS and stress increased the likelihood of developing symptoms of depression. Furthermore, Potthoff et al. (1995) found that minor social stressors with one's family, friends, or partner mediated the relationship between ERS and subsequent depressive symptoms. Potthoff et al.'s findings suggest that ERS creates problems in an individual's social network, which eventually predict increases in symptoms of depression. Future research is needed to determine whether an additive or mediating model best explains the association between ERS, stress, and depression.

### **Cognitive-Interpersonal Link in Depression Vulnerability**

Notwithstanding empirical support for an association among ERS, the generation of stress in relationships, and symptoms of depression, research examining the mechanism(s) by which individuals come to engage in ERS is just beginning to emerge and be integrated conceptually (Abela et al., 2005; Davila, 2001; Evraire & Dozois, 2014; Evraire, Ludmer, & Dozois, 2014; Katz, Petracca, & Rabinowitz, 2009; Shaver et al., 2005). One hypothesis is that ERS and depression may be linked through early experiences of interpersonal

dysfunction. For example, some researchers point to early attachment experiences and adult attachment styles to explain the variation in social relationships that may increase vulnerability to depression, and the failure to use support from others during a depressive episode (e.g., Moran, Bailey, & DeOliveira, 2008; Mikulincer & Shaver, 2012). In attachment theory, early interactions between an infant and his or her caregiver lead to the development of an internal working model (IWM) about the self, others, and their interrelationships. IWMs of attachment not only influence the way individuals relate to others, but also their attributions, perceptions, and emotional understanding of these relationships (Moran et al., 2008). Positive models of self (as worthy of love and nurturance) and others (as responsive and trustworthy) reflect attachment security, whereas negative models of self (as unworthy of love and nurturance) and/or others (as unresponsive and untrustworthy) reflect insecurity (Ainsworth, Blehar, Waters, & Wall, 1978; Main, Kaplan, & Cassidy, 1985). In adults, IWMs of attachment are conceptualized along two dimensions: avoidance, which involves feeling discomfort in close relationships, and anxiety, which involves worrying about the availability of others to meet attachment needs and one's self-worth in relation to others.

**Cognitive origins of ERS.** As described previously, an individual's history of being cared for and responded to by close others in early childhood tends to carry over into future relationships. Given that individuals have unique childhood experiences, they also differ with regard to the meaning, sense of importance, and perceived helpfulness they attribute to relationships (Marris, 1996).

**Attachment.** Attachment theory has demonstrated that children learn to self-reassure when they have a secure attachment with their caregiver (Bowlby, 1980). However, when caregivers have an insecure attachment with their children, and are inconsistent in responding

to their needs, the children learn to seek assurances externally rather than internally (Bowlby). In other words, an individual's propensity to engage in ERS may originate from early experiences with inconsistent attachment figures. Attachment research in adults has established that individuals with an avoidant attachment style minimize the expression of negative emotions and use deactivating strategies (e.g., avoidance of proximity) to deal with distress, whereas individuals with an anxious attachment style have a low threshold for activation of their IWM, maximize the expression of negative emotions, and use hyperactivating strategies (e.g., proximity seeking) to manage distress (Cobb & Davila, 2009; Moran et al., 2008). More so than other styles, a significant link has been established between anxious attachment and higher levels of overall and daily ERS (Abela et al., 2005; Davila, 2001; Evraire & Dozois, 2014; Evraire et al., 2014; Katz et al., 2009; Shaver et al., 2005). Furthermore, when anxious attachment is broken down into its dimensions (comfort with closeness and anxiety about abandonment), the anxiety about abandonment component is most strongly associated with ERS (Davila). Similarly, Young's (1999) abandonment/instability schema is also associated with higher self-reported ERS (Evraire & Dozois, 2014). An anxious attachment style in adulthood is characterized by low self-worth, a fear of abandonment, a dependent style of relating, openness to partner feedback, and an excessive desire to gain approval from others (Bartholomew, 1990). Given that individuals with an anxious attachment style have a positive IWM of others, along with low self-esteem, and a fear of abandonment, they rely on feedback or reassurance from others to determine their self-worth and security in their relationships (Brennan & Carnelley, 1999). Consistent with this idea, individuals whose self-esteem is dependent on the quality of their friendships (friendship contingent self-esteem) also engage in higher levels of ERS (Cambron & Acitelli, 2010). However, because individuals with an anxious attachment style had unpredictable and

inconsistent caregivers in childhood, they may have learned to distrust cognitive information when trying to predict an attachment figure's behaviour, and so continue to engage in ERS (Crittenden, 1997).

**Trust.** Trust, which is an important component of a secure IWM, can be defined on the basis of dependability, or the confidence that an individual's partner will be concerned about and responsive to his or her needs, desires, and goals, along with faith in the future of the relationship (Mikulincer, 1998). Individuals differ with respect to their level of "felt trust" along with the meaning they attach to trust, the emotions they experience in trust-related scenarios, and their cognitive and behavioural reactions to trust-related situations. Individuals with an anxious attachment style hold a negative sense of trust, experience high levels of negative trust related affect, attach high importance to negative trust related events, and cope with such events by engaging in ruminative worry. Furthermore, a central component of their sense of trust is concern about security along with security seeking behaviours such as ERS (Mikulincer, 1998). To deal with their insecurity, individuals with an anxious attachment style obsessively search for signs of security in their relationship (Shaver & Hazan, 1993). These individuals monitor their relationship and the behaviours of their partners in a vigilant manner, paying direct attention to distress and mentally ruminating about its causes and meanings (Shaver & Hazan). Despite their solicitation of and openness to feedback, however, individuals with an anxious attachment style often do not believe the reassurance they receive from close others and thus continue to engage in ERS (Crittenden, 1997).

Joiner, Katz, and Lew (1999) demonstrated that individuals engaged in ERS as a coping strategy, the function of which was to assuage any doubts about their lovability, worthiness (i.e., self-esteem), and future prospects and safety (i.e., anxiety). These authors

found that stressful negative life events predicted higher anxiety and lower self-esteem which, together, mediated the relationship between negative events and changes in reassurance seeking; individuals who experienced decreased self-esteem and increased anxiety in response to negative events engaged in greater reassurance seeking behaviour (Joiner et al., 1999). Similarly, Evraire et al. (2014) found that attachment anxiety was associated with higher levels of ERS following an interpersonal partner prime<sup>1</sup>. The interpersonal partner prime which centered on the theme of rejection, likely activated relationship and personal insecurities. The activation of these insecurities was subsequently associated with higher reports of ERS, since individuals with an anxious attachment style typically use hyperactivating strategies to deal with their distress.

Parrish and Radomsky (2010) took a unique approach to studying the origins of ERS by interviewing individuals with depression and inquiring about the content, triggers, function, and termination criteria involved in their reassurance seeking behaviour. The most common focus of reassurance seeking reported by individuals with MDD pertained to social threats (e.g., asking their fiancés if they love them). Individuals with MDD also sought reassurance about personal performance and/or competence (e.g., doubts regarding competence in everything from work to the ability to run a household) and general safety or harm concerns (e.g., making sure the door is locked). When discussing the types of situations that trigger their reassurance seeking, individuals with MDD identified the most frequent triggers as perceived social threats (e.g., the doubt or insecurity they are experiencing in a relationship) and doubts regarding personal performance and/or competence (e.g., feeling

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<sup>1</sup> The interpersonal partner prime asked participants to read a paragraph describing a scenario in which an individual was being rejected by an intimate partner. Participants were then asked to spend 30 seconds imagining that they were experiencing the situation they had just read.

they cannot make a decision on their own). Individuals with MDD indicated that the function of their reassurance seeking was to increase self-esteem, receive affection, decrease anxiety, and prevent social harm (also see Joiner et al., 1999). In contrast, individuals with obsessive compulsive disorder (OCD) reported seeking reassurance primarily about perceived general threats (e.g., theft or fire) to prevent harm, rather than seeking reassurance about social threats to reduce social harm. These findings augment the literature by offering additional support regarding the relationship between insecurity in interpersonal domains and ERS in individuals with depression. Of direct relevance to the research of Parrish and Radomsky is the question of whether or not individuals have insight into their ERS behaviour. Research examining the ability of individuals to accurately report on their own ERS behaviour has demonstrated a moderate, positive correlation between ERS as reported by the individual and ERS as reported by a close other (Evraine, 2010; Joiner & Metalsky, 2001; Shaver et al., 2005). These studies indicate that ERS is real and observable by both close others and the individual seeking reassurance.

### **Gaps in the ERS literature**

Although the associations between ERS, interpersonal distress, and depression have been examined across a number of studies, important limitations remain in this literature. Given the theoretical focus in the literature on the relationship between ERS and depression, some researchers wonder why the correlation between the two is not higher; reported effect sizes between ERS and depression are generally modest at best (Starr & Davila, 2008). One answer to this question is that ERS is hypothesized to be a contributory rather than necessary or sufficient cause of symptoms of depression, and so a modest correlation between ERS and depression is expected (Joiner et al., 1999). A second answer is that individual difference variables may moderate the association between ERS and depression; that is, it may not be

the behaviour of ERS per se, but rather characteristics of the individual in combination with ERS that are associated with depression. Shaver et al. (2005), for instance, found that for highly anxious women, reassurance seeking on a given day was associated with greater negative mood the next day; however for non-anxious women, reassurance seeking on a given day led to positive mood the next day. Similarly, Evraire and Dozois (2014) found that for individuals with an abandonment/instability schema, ERS was associated with higher levels of depressive symptomatology over a 6 week period. However, for individuals high in avoidant attachment, there was no association between ERS and subsequent symptoms of depression. These findings suggest that individuals with an anxious attachment style, or an abandonment/instability schema, in response to their perception of close others as unreliable along with their fear of abandonment, seek reassurance in a way that is likely aversive to others and detrimental to their psychological well-being. However, for avoidant individuals who typically distance themselves from the support of close others, ERS does not significantly impact their levels of depressive symptoms. These findings seem to suggest that there are both secure and insecure forms of ERS, perhaps only one of which is excessive in the sense that it leads to increases in depression or is damaging in some other way (e.g., decreased relationship quality or rejection). Although research has examined the moderating properties of attachment styles and an abandonment schema on the relationship between ERS and prospective low mood or symptoms of depression, no research to date has examined the influence of attachment styles on the prospective relationship between ERS and different qualities of the relationship. This research would fill a gap in the ERS model by providing evidence as to whether or not engaging in ERS is associated with positive or negative changes in relationship quality.



The impact of ERS also often depends on the interpersonal context in which it takes place. For example, the effect size for studies examining ERS and concurrent rejection in romantic relationships is marginally higher than the effect size for studies on ERS in non-romantic relationships (Starr & Davila, 2008). This finding seems to suggest that having a romantic partner who invalidates attempts at reassurance may lead to greater emotional and interpersonal consequences than having a roommate or acquaintance who questions the authenticity of the feedback received. Coding relationships categorically, however, fails to capture important aspects of the relationship partners (e.g., attachment styles) or the relationship itself (e.g., length, quality) that may be relevant to the ERS model. For example, particular partner characteristics such as an individual's attachment style, might moderate how an individual responds to, or perceives ERS. One study to date, for example, has found that avoidant women experience ERS from their male partners as particularly aversive and report decreases in their relationship quality as a result (Shaver et al., 2005). As such, future research is needed to examine how particular partner characteristics and relationship qualities moderate the likelihood of low mood, symptoms of depression, or changes in relationship quality following ERS.

Another aspect of the ERS literature that is frequently criticized involves the almost complete lack of methodological diversity across studies. The most recent meta-analysis found that over two-thirds of ERS studies used college-aged samples (between the ages of 18 and 22 years), with only seven examining ERS in children, and five looking at ERS in post-college aged adults (Starr & Davila, 2008). The failure to examine ERS across the lifespan is an important shortcoming given that the nature of interpersonal relationships and the social acceptability of ERS fluctuate substantially with age (Starr & Davila, 2008). An additional limitation concerns the lack of prospective studies that examine the contribution of ERS to

low mood and relationship quality. In the few prospective studies that have been conducted, ERS only predicted later depression under certain circumstances, in combination with particular attachment styles or early maladaptive schemas (EMSs; Evraire & Dozois, 2014; Evraire et al., 2014; Shaver et al., 2005), or along with rejection or stress (Joiner & Metalsky, 2001). Furthermore, some aspects of the ERS model are predicated on the notion that these processes unfold over days rather than months (e.g., that reassurance seeking on one day leads to negative mood or social consequences the next), yet only one study has examined this model at the daily level of analysis. Also, all of the prospective studies conducted to date have used an undergraduate sample. As such, additional longitudinal research using a non-undergraduate sample is needed to refine the parameters of the ERS model.

### **Objectives and Hypotheses**

By addressing the limitations of the ERS literature discussed above, the current study provides an original contribution to the literature and elucidates a more comprehensive understanding of the daily dynamics, and ramifications of ERS in romantic relationships<sup>2</sup>. Furthermore, the current study improved upon the lack of methodological diversity that exists in the ERS literature by using a longitudinal, daily diary design to investigate the ERS model as it unfolded over time. Given that the vast majority of past research has examined ERS in undergraduate samples, including the only daily diary study, the current study was the first to examine this model in a community sample of romantic couples, while also examining how individual and relationship characteristics influenced this process. Finally,

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<sup>2</sup> Although the concept of ERS was originally described/examined within the context of Coyne's interpersonal theory of depression, the current study was developed based on the new line of research (e.g., Shaver et al., 2005; Evraire & Dozois, 2014) suggesting that attachment styles play an important role in the ERS model. Symptoms of depression were included in the current study in order to elucidate the unique contributions of attachment styles to this model.

given the dyadic nature of the ERS model, the current study was the first to account for the statistical dependence of couples across analyses by including both individual and partner variables and including men and women in the same analyses.

**Objective 1: To examine the contribution of attachment style and global relationship variables to daily ERS.** The first objective of this study was to replicate the cross-sectional association among attachment styles and ERS over a 14-day period in a community sample of romantic couples. Studies examining the cognitive origins of ERS in undergraduate samples have consistently demonstrated that attachment anxiety is positively associated with ERS, whereas attachment avoidance is negatively or unrelated to ERS (Davila, 2001; Evraire & Dozois, 2014; Evraire et al., 2014; Shaver et al., 2005). As such, higher attachment anxiety was expected to be associated with greater daily ERS (Hypothesis 1) and attachment avoidance with lower daily ERS in romantic couples (Hypothesis 2). This was also the first study to examine how different aspects of a relationship (trust and overall relationship quality) were associated with daily ERS. Although a number of studies have examined the ERS model in romantic versus non-romantic relationships, categorically coding relationship types does not capture all aspects of a relationship that may be relevant to the ERS model. Although these associations were examined in an exploratory manner, some hypotheses were made based on associated lines of research. For example, the construct of trust in relationships is known to be associated with an anxious attachment style (Mikulincer, 1998). As such, it was predicted that individuals reporting lower levels of trust in their relationships may engage in ERS as a means of abating their insecurities (Hypothesis 3).

**Objective 2: To examine the moderating properties of attachment style on the relationship between daily ERS and next day mood and relationship variables.** The ERS literature have recently indicated that individual attachment styles and EMSs may moderate

the association between ERS and depression. Although the ERS literature has demonstrated that attachment styles or EMSs reflecting a fear of rejection or abandonment in relationships in combination with ERS lead to symptoms of depression, no research to date has examined whether or not they moderate the association between ERS and negative interpersonal consequences (e.g., level of trust or overall relationship quality). As such, the second objective of this study was to examine the moderating properties of an individual's attachment style on the relationship between daily ERS and next day negative mood, relationship quality, and trust; relationship quality was chosen as an outcome variable to replicate the findings of Shaver et al. (2005), and trust was chosen given that it is an important component of attachment. In line with previous research, attachment anxiety, in combination with higher levels of ERS, was predicted to lead to both negative psychological and interpersonal consequences (Hypothesis 4). That is, individuals high in attachment anxiety, who also engaged in ERS, were expected to experience lower next day negative mood, relationship quality, and/or trust.

Interpersonal schemas reflecting insecurity in relationships, particularly a fear of rejection or abandonment, have demonstrated incremental predictive power for ERS over and above the influence of depression (Evraire & Dozois, 2011; 2014; Evraire et al., 2014). Current research suggests that individuals may engage in ERS not because of depression per se, but as a function of attachment styles or EMSs that reflect high levels of concern surrounding relationships (Evraire & Dozois, 2014). As such, the details of Coyne's model may need to be refined to incorporate these findings. In the current study, attachment anxiety was hypothesized to predict aspects of the ERS model above and beyond depression (Hypothesis 5). Symptoms of depression were included as a control variable throughout analyses to determine whether or not the results support the old and/or revised version of

Coyne's model. Should the proposed study replicate the findings of Evraire and Dozois (2014), they would have serious implications for the revision of the ERS model as originally proposed by Coyne.

**Objective 3: To examine the moderating properties of attachment style on the relationship between actor daily ERS and partner next day mood and relationship variables.** The third objective was to examine how an individual's attachment style moderated the impact of his or her ERS on partner next day negative mood, relationship quality, and/or trust. Lemay and Cannon (2012) found that individuals with a partner suffering from greater symptoms of depression reported more frustration and less acceptance of their partners when they were led to believe they had engaged in ERS. The literature reviewed previously also suggests that individuals with an anxious attachment style, in response to their fear of abandonment, seek reassurance in a way that is likely aversive to others and detrimental to their psychological well-being (Evraire & Dozois, 2014; Shaver et al., 2005). Although these associations were examined in an exploratory manner, it may be predicted that individuals with an anxious attachment style may negatively impact their partner's reported mood, relationship quality and/or trust when they engage in ERS (Hypothesis 6).

**Objective 4: To examine the moderating properties of attachment style on the relationship between partner daily ERS and actor next day mood and relationship variables.** The fourth objective was to examine how an individual's attachment style influenced how he or she reacted to receiving ERS from his or her partner in terms of daily negative mood, relationship quality, and trust. With respect to how a partner's attachment style influences the ERS model, Shaver et al. (2005) found that avoidant women experience ERS in their partners to be particularly aversive having a negative influence on relationship

quality. Consistent with this idea, a study examining support-giving behaviour from men to their female partners following a stressor, found that avoidant men offered less reassurance, supportive comments, and emotional support than did secure men (Simpson, Rholes, & Nelligan, 1992). Given these findings it may be hypothesized that for individuals high in avoidant attachment a partner's ERS may lead to negative mood, poor relationship quality, and/or low trust (Hypothesis 7). Knowing that individuals with an avoidant attachment style down-regulate attachment feelings and behaviours by distancing themselves from their partners, it makes sense that having a partner constantly asking for reassurance would be aversive to avoidant individuals since seeking reassurance is incongruent with their own strategy of coping with distress.

## **Method**

### **Participants**

One-hundred and ten heterosexual couples were recruited from the Southwestern, Ontario area. The age of participants ranged from 16 to 68, with a mean age of 32.45 years ( $SD = 10.32$ ). Couples had been together for periods ranging from 2 months to 46 years ( $M = 7.95$  years;  $SD = 7.86$ ). Of the 222 participants, reported race was 82.9% Caucasian, 3.6% Asian, 1.4% African Canadian, 3.6% First Nations or Native Canadian, 1.8% Hispanic, and 6.7% other. Couples were required to be living together at the time of participation and had been cohabitating anywhere from 1 month to 45 years ( $M = 6.44$  years;  $SD = 7.71$ ). Although not necessary for participation, roughly half (55%) of the couples were married.

### **Laboratory Measures**

**Beck Depression Inventory, Second Edition** (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II is a 21-item questionnaire that assesses the presence and severity of unipolar depressive symptomatology. Each item is rated on a 4-point scale from 0 (*indicating a lack of*

*depressive symptomatology*) to 3 (*indicating high depressive symptomatology*) with summary scores ranging from 0 to 63. Considerable psychometric evidence supports the internal reliability, concurrent, and discriminant validity of this questionnaire as a measure of depression in both clinical and undergraduate samples (Beck & Steer, 1987; Dozois, Dobson, & Ahnberg, 1998). The internal consistency (Cronbach's alpha) of the BDI-II in this sample was .91 in women and .89 in men.

#### **Depressive Interpersonal Relationships Inventory-Reassurance Seeking Subscale**

(DIRI-RS; Joiner, Alfano, & Metalsky, 1992). The DIRI-RS is a 4-item self-report questionnaire designed to measure an individual's tendency to engage in reassurance seeking (e.g., "Do you find yourself often asking the people you feel close to how they truly feel about you?"), and his or her partner's reactions to such reassurance seeking (e.g., "Do the people you feel close to sometimes get fed up with you seeking reassurance from them about whether they really care about you?"). Participants answer the questions based on their current relationships on a 7-point scale from 1 (*not at all*) to 7 (*very much*). An average score was calculated with scores ranging from 1 to 7. Joiner & Metalsky (2001) supported the construct and criterion validity of the DIRI-RS along with its use as a cohesive and replicable measure of reassurance-seeking distinct from general dependency, doubt in others' sincerity, and dependence on close others. The DIRI-RS demonstrates high internal consistency (Joiner et al., 1992). Coefficient alpha in the present sample was .90 for women and .83 for men.

**Experiences in Close Relationships-Revised** (ECR-R; Fraley, Waller, & Brennan, 2000). The ECR-R is a revised version of Brennan, Clark, and Shaver's (1998) Experiences in Close Relationships (ECR) questionnaire. This 36-item questionnaire is designed to assess individual differences with respect to attachment anxiety (the extent to which people are insecure about their partner's availability and responsiveness) and attachment-related

avoidance (the extent to which individuals are uncomfortable being close to others).

Participants rate each item on a 7-point scale from 1 (*disagree strongly*) to 7 (*agree strongly*) based on experiences in their current relationship. Attachment anxiety scores were created by averaging responses across the anxiety dimension items and ranged from 1 to 7. Attachment avoidance scores were created by averaging responses across the avoidance dimension items and ranged from 1 to 7. The internal consistency reliability of the ECR-R is excellent (e.g.,  $\alpha \geq .90$ ). Coefficient alpha for the current sample on attachment anxiety was .93 for women and .91 for men, and for attachment avoidance .91 for women, and .92 for men.

**Perceived Relationship Quality Component Inventory (PRQC;** Fletcher, Simpson, & Thomas, 2000). The PRQC is an 18-item inventory which assesses the perceived relationship quality of an individual's current partner and relationship across several components: relationship satisfaction, commitment, intimacy, trust, passion, and love. Each component is assessed using three questions that are rated on a 7-point scale from 1 (*not at all*) to 7 (*extremely*). Responses were averaged across each component with scores ranging from 1 to 7, and summed to form a global index of relationship quality ranging from 1 to 126, with higher scores indicating greater perceived relationship quality. The psychometric properties of the PRQC are strong, demonstrating good reliability and high face validity as a measure of specific domains of relationship quality (Fletcher et al., 2000). For the current sample, coefficient alpha for overall relationship quality was .80 for women and .94 for men, and for trust, .88 for women and .87 for men.

### **Diary Measures**

**Daily Reassurance Seeking.** A modified version of the DIRI-RS was used to assess daily reassurance seeking behaviour. The 2-items that were used were (a) how much did you seek reassurance from your partner today about whether he or she really cares about you? and



(b) did your partner become irritated or get fed up with you today for seeking reassurance about whether he or she really cares about you? Participants answered the questions based on their current relationship on a 7-point scale from 1 (*not at all*) to 7 (*very much*). An individual's ERS was calculated by averaging items (a) and (b) with scores ranging from 1 to 7. Although the psychometric properties of this modified version of the DIRI-RS remain unclear, abbreviated versions of the DIRI-RS were used in the only other daily diary study examining ERS. Shaver et al. (2005), for example, asked romantic partners on a daily basis "how much did you ask your partner for reassurance today?" Furthermore, in the current study, there was a significant association between global reports of ERS as measured by the DIRI-RS, and the averaged scores of daily reassurance seeking ( $r = .19, p < .01$ ). In the present sample, coefficient alpha was .79 for women and .87 for men.

**Daily Relationship Quality.** An abbreviated version of the PRQC (Fletcher et al., 2000) was used to assess daily relationship quality. On a 7-point scale ranging from 1 (*not at all*) to 7 (*extremely*) participants were asked to rate: (a) how satisfied they felt with their relationship on that day (b) how committed they felt to their relationship that day (c) how intimate their relationship felt that day (d) how much they trusted their partner that day (e) how passionate their relationship felt that day, and (f) how much love they felt towards their partner that day. Each response represented a particular relationship quality (e.g., trust), and responses were summed to form a global index of relationship quality ranging from 1 to 42, with higher scores indicating greater perceived relationship quality. Coefficient alpha for the present sample was .83 for women and .85 for men.

**Positive Affect and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen 1988).** The PANAS is a 20-item questionnaire that assesses both negative and positive affect (10 items each). Each item is rated on a 5-point scale from 1 (*very slightly or not at all*) to 5

(*extremely*) and inquires about the extent to which the individual currently feels the emotion (e.g., “Indicate the extent to which you currently feel distressed”). A total negative/dysphoric mood score was computed by summing the 10 negative adjectives with scores ranging from 1 to 50. Initial studies in development of the PANAS showed that the mood scales are stable at appropriate levels over a 2-month time period, highly internally consistent, and largely uncorrelated (Crawford & Henry, 2004; Watson et al., 1988). Coefficient alpha for negative mood in the present sample was .86 for women and .90 for men.

### **Procedure**

Participants were recruited through fliers posted in local businesses in the London area (e.g., grocery stores) and through online advertisements on Kijiji London and the hospital board of London Health Sciences Centre. Interested participants were contacted by phone or email to describe the study and to ascertain interest in participation. Individuals who met criteria for participation in the study (i.e., they were living with a romantic heterosexual partner), were scheduled for a lab visit with their partners.

**Phase 1.** This study had two phases: an in-lab phase (Phase 1) and a daily diary phase (Phase 2). Couples were run one at a time for Phase 1. Upon arrival, each couple was given a letter of information (see Appendix A) outlining the purpose of the study and each member of the couple was asked to read and sign the consent form (see Appendix B). After obtaining informed consent, each member of the couple completed questionnaires in a separate room<sup>3</sup>. The questionnaires focused on demographic information, attachment styles, symptoms of depression, ERS, and perceived relationship quality. After completing the questionnaires, each participant was given a list of psychological services along with contact information

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<sup>3</sup> In the situations where couples brought a small child to the lab, they completed measures in the same room but were instructed not to discuss answers with one another. This occurred rarely (<10 times).

(see Appendix C) in the event that he or she was experiencing depressive symptoms or feeling distressed as a result of the study. Upon completion of the in-lab study, couples were asked to participate in an additional 14-day diary study in which they were asked to fill out daily questionnaires online. Participants were compensated monetarily (50\$/couple) for their participation in the study regardless of whether or not they participated in Phase 2.

**Phase 2.** All couples agreed to participate in Phase 2 and so were given instructions on how to complete the questionnaire online at the end of each day for 14 days (separate from their partner) to assess their mood, relationship dynamics/quality, and ERS. Each couple watched a demonstration by the research assistant on how to open the link to the online questionnaire from an email which would be sent to them daily. Throughout the study, daily participation was monitored and participants who failed to complete a day of the diary were contacted (by phone or email) to ensure they were not having difficulties with the online questionnaire and to encourage active participation. Participants were also encouraged to contact the lab at any time with questions they had. At the end of the diary study, participants were given a debriefing sheet (see Appendix D) providing them with more details concerning the nature of the study and the importance of each individual's participation and contribution, along with a list of psychological services. For each day that participants completed the daily measures their name was entered into a draw that would be completed at the end of the study for a chance to win one of 4 iPads. Furthermore, upon completion of the 14-day daily diary phase, couples were compensated monetarily for each day they completed the online diary (\$3/day per individual). On average, participants completed 12.78 diary entries.

## Results

### Data Analytic Approach

The diary data were hierarchically nested in a two-level crossed design. Participants completed questionnaires each day for 14 consecutive days. The data have three levels of analysis: the dyad, the partners within the dyad, and the observations within the persons. However, the within-person observations are crossed rather than nested, so that the first day of the diary study for the actor is the same day as the first day for his or her spouse (Laurenceau & Bolger, 2011). This distinction allows for the examination of day-specific sources of dependency. To test the associations between actor and partner variables, and to account for the statistical dependence in the data across dyad members, all analyses followed the MIXED procedure in SPSS 20 for repeated measures dyadic data (Kenny, Kashy, & Cook, 2006). This approach analyzes the three levels of data described above as two levels of data, with the lowest level representing multivariate repeated measures (for more information see Laurenceau & Bolger, 2011). In terms of how the data were structured in SPSS, both level 1 and level 2 variables for men and women were included in one file. Each participant had 14 lines of data corresponding to each day of the diary study. Each row included actor and partner variables for that corresponding day, along with actor and partner level 2 variables (e.g., attachment, symptoms of depression). Analyses were run using syntax that combined level 1 and level 2 variables into one equation per model. Given the complexity of the data set, prototypical equations are provided below in order to illustrate the data analytic approach more fully.

For simplification purposes, using data from women only, suppose the hypothesis that women high in attachment anxiety would have a positive association between daily ERS and next day trust was examined. For this data structure, daily ERS is a lower level variable,

while attachment anxiety is the upper level variable. In the simplest sense, this analysis involves two steps that may be captured by a series of Level 1 and Level 2 equations. The Level 1 equation illustrates the association between the lower level variables:

$$Y_{ij} = b_{0i} + b_{1i}X_{ij-1} + e_{ij}$$

Where  $Y_{ij}$  is trust for woman  $i$  on day  $j$ , and  $X_{ij-1}$  is that woman's level of ERS on day  $j-1$ . In this equation,  $b_{0i}$  represents the average level of ERS across women, and  $b_{1i}$  represents the coefficient for the relationship between ERS on day  $j-1$  and trust on day  $j$  for that woman ( $i$ ).

The Level 2 equations involve using the slopes and intercept from the Level 1 analyses as outcome variables in two regressions. For these equations, the regression coefficients from the Level 1 equations are assumed to be a function of a person-level predictor variable  $Z$ :

$$b_{0i} = a_0 + a_1Z_i + d_i;$$

$$b_{1i} = c_0 + c_1Z_i + f_i.$$

The first Level 2 regression equation treats the Level 1 intercepts as a function of the  $Z$  variable, so in this case it involves predicting the average level of trust as a function of a woman's attachment anxiety. The second Level 2 equation examines the Level 1 regression coefficients as a function of  $Z$ , so predicting the woman's ERS-trust relationship as a function of her attachment anxiety. The Level 1 and 2 equations can be combined into the following single equation that shows the direct relationship between a woman's level of trust on a particular day, the amount of ERS she engaged in on the previous day, and her attachment anxiety:

$$Y_{ij} = a_0 + c_0X_{ij-1} + a_1Z_i + c_1Z_iX_{ij-1} + f_iX_{ij} + d_i + e_{ij}$$

The last three effects demonstrate the random effects of the model. The variable  $e_{ij}$  represents the unexplained variation in trust for woman  $i$  on day  $j$  after accounting for ERS on day  $j-1$ ;

$d_i$  represents the unexplained variation in average trust after accounting for attachment anxiety; and  $f_i$  represents the unexplained variation in the ERS-trust relationship.

The current study went beyond this simple example, as it included both actor and partner variables across the 14-day diary period. Relationship partners were also distinguishable by the variable gender. Gender was effects coded (-1 for men and +1 for women), and all continuous predictor variables were grand mean centered. Variables were grand mean centered since ERS was operationalized as individuals who engaged in higher levels of daily reassurance seeking than the average individual, rather than an individual's personal increase in reassurance seeking behaviour on a particular day. Effects for the individual are referred to as actor effects, whereas effects for the partner are referred to as partner effects. Effects were pooled across men and women; however, main and interaction effects for gender were included in each analysis. A number of covariates were included across analyses and, in order to examine residual change in the outcome variables, the level of the outcome variables the prior day was controlled for. The intercept was modeled as random, given that variation may exist between couples.

Following from the example above, adding in partner variables, the Level 2 model would look something like this:

$$b_{0ij} = a_{0i} + a_{1i}(\text{actor anxiety}) + a_{2i}(\text{partner anxiety}) + a_{3i}(\text{actor avoidance}) + a_{4i}(\text{partner avoidance}) + a_{5i}(\text{gender}) + d_{ij}$$

This Level 2 model suggests that an individual's level of next day trust ( $b_{0ij}$ ) is a function of both that individual's attachment anxiety and avoidance, and the individual's partner's attachment anxiety and avoidance. Gender is also included in the Level 2 model since the members of the dyad are distinguishable by gender. Also, the coefficients in this

model are subscripted for dyad; that is  $a_{li}$  suggests that the actor effects of attachment anxiety may vary from dyad to dyad.

### **The Current Study**

In order to keep the analyses theoretically focused and in line with the hypotheses, next day negative mood, overall relationship quality, and trust were outcomes variables. For each daily diary model predicting an outcome variable on day  $j$ , the predictor variables consisted of the following: the outcome variable on day  $j - 1$ ; actor and partner daily ERS on day  $j - 1$ ; actor and partner attachment anxiety; actor and partner attachment avoidance; and actor and partner symptoms of depression. Main effects for partner variables were included to control for the interdependent nature of dyadic data. The two-way interactions between actor ERS and actor attachment anxiety, actor ERS and actor attachment avoidance, and actor attachment anxiety and avoidance were also included. When examining the influence of partner ERS on the outcome variable, the same two-way interactions were included replacing actor ERS with partner ERS (e.g., partner ERS\*actor attachment anxiety). In order to examine the influence of gender, a main effect of gender was included, along with the two-way interactions between gender and actor ERS, actor attachment anxiety, and actor attachment avoidance, along with the three-way interactions of gender, actor ERS, and actor attachment anxiety or attachment avoidance. Again when partner ERS was of interest to the outcome variable, the main and interaction effects of gender included partner ERS rather than actor ERS (e.g., gender\*partner ERS\*actor attachment anxiety). The unstandardized regression coefficients for each model are presented below. Each model was re-run controlling for relationship length, time cohabitating, and age, separately. Importantly when controlling for these variables, all significant main and interaction effects remained robust.

Descriptive statistics by gender for the variables of interest, including the grand mean and standard deviations, are summarized in Table 1. Gender differences existed such that women reported higher levels of overall ERS, symptoms of depression, and attachment anxiety than men, whereas men reported higher attachment avoidance than women. Correlations among key outcome and predictor variables across all individuals are displayed in Table 2. The zero-order correlations show that for both men and women, higher levels of attachment anxiety and symptoms of depression were associated with greater levels of overall and daily ERS. The findings were mixed with respect to attachment avoidance. For women, attachment avoidance was associated with lower levels of overall ERS and was not associated with daily ERS. For men, attachment avoidance was related to higher levels of both overall and daily ERS. In terms of relationship variables, for both men and women, lower levels of daily trust were associated with greater overall and daily ERS. For both men and women, lower relationship quality was associated with greater daily ERS and was not associated with overall ERS. Each variable was positively correlated among romantic partners.

### **Objective 1: The Contribution of Attachment Style and Global Relationship Variables to Daily ERS**

The association between attachment styles and daily ERS, controlling for symptoms of depression, was examined by modeling daily ERS as a function of (a) actor and partner symptoms of depression, (b) actor and partner attachment anxiety and (c) actor and partner attachment avoidance. To examine the influence of gender, a main effect of gender was included along with the two-way interactions between gender and actor symptoms of depression, actor attachment anxiety, and actor attachment avoidance. Analyses were conducted in a hierarchical fashion and the results are shown in Table 3.



Table 1

*Descriptive Statistics for Key Variables by Gender*

Variable	Women		Men		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
ERS	2.50	1.55	1.86	1.02	-13.53**
Attachment Anxiety	2.99	1.17	2.65	1.00	-8.54**
Attachment Avoidance	3.05	0.93	3.49	1.07	12.00**
Depression	9.24	7.84	8.62	7.14	-2.28**
Daily ERS	1.40	0.89	1.42	0.85	0.62
Daily Negative Mood	13.10	4.58	12.99	4.77	-0.63
Daily Trust	6.48	0.97	6.48	1.06	-0.08
Daily Relationship Quality	34.47	6.02	34.62	6.55	0.62

\*  $p < .05$ ; \*\*  $p < .01$

Table 2

*Correlations among Key Predictor and Outcome Variables by Gender*

	1	2	3	4	5	6	7	8
1. ERS	<b>.10</b> **	.59**	.13**	.40**	.31**	.43**	-.36**	-.22
2. Attachment Anxiety	.66**	<b>.20</b> **	.43**	.59**	.27**	.29**	-.31**	-.24**
3. Attachment Avoidance	-.09**	.25**	<b>.08</b> **	.35**	.07**	.19**	-.22**	-.15**
4. Depression	.33**	.50**	.28**	<b>.29</b> **	.21**	.36**	-.23**	-.27**
5. Daily ERS	.16**	.12**	.01	.18**	<b>.19</b> **	.36**	-.22**	-.07**
6. Daily Negative Mood	.18**	.26**	.09**	.32**	.23**	<b>.36</b> **	-.45**	-.33**
7. Daily Trust	-.12**	-.23**	-.13**	-.38**	-.22**	-.22**	<b>.39</b> **	.73**
8. Daily Relationship Quality	-.01	-.13**	-.12**	-.35**	-.16**	-.31**	.69**	<b>.54</b> **

Note: Correlations below the diagonal are for women, while correlations above the diagonal are for men. Correlations between spouses appear along the diagonal.

\*  $p < .05$ ; \*\*  $p < .01$

Table 3

*Effects of Gender, Depression, and Attachment Styles on Daily ERS*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	-.02	.02	-1.45
Depression	.01	.00	5.16**
Attachment Anxiety	.11	.02	6.04**
Attachment Avoidance	-.05	.02	-2.82**
Partner Depression	-.00	.00	-0.27
Partner Attachment Anxiety	.07	.02	4.12**
Partner Attachment Avoidance	-.04	.02	-2.14*
Step 2			
Gender*Depression	.01	.00	2.49*
Gender*Attachment Anxiety	-.08	.02	-4.69**
Gender*Attachment Avoidance	-.01	.02	-0.64

\*  $p < .05$ ; \*\*  $p < .01$

In support of the first hypothesis, individuals high in attachment anxiety engaged in greater daily ERS. The two-way interaction between gender and actor attachment anxiety was also significant such that the association between actor attachment anxiety and daily ERS was stronger for men ( $b = .21, t = 9.78, p < .001$ ) than women ( $b = .09, t = 4.43, p < .001$ ). In line with the second hypothesis, individuals high in avoidant attachment reported lower levels of ERS across the 14-day diary period, with no significant differences between genders. An unexpected partner effect also emerged such that individuals with a partner high in attachment anxiety reported higher levels of daily ERS whereas individuals with a partner high in attachment avoidance reported engaging in lower levels of daily ERS. Individuals with greater symptoms of depression reported engaging in more ERS over the 14-day diary period. This effect was qualified by a two-way interaction between gender and actor symptoms of depression such that the association between actor symptoms of depression and daily ERS was significant for women ( $b = .02, t = 5.43, p < .001$ ) but not men ( $b = .01, t = 1.49, ns$ ). Thus, as women's symptoms of depression increased they reported engaging in greater daily ERS.

The association between different aspects of an individual's global relationship quality and daily ERS was examined by modeling daily ERS as a function of (a) actor and partner overall trust, (b) actor and partner overall relationship quality and (c) relationship length. A main effect of gender was included along with the two-way interactions between gender and overall actor trust, relationship quality, and length. The results are shown in Table 4. In support of the third hypothesis, both actor and partner trust were negatively associated with daily ERS, such that lower levels of trust were associated with more ERS over the 14-day diary period. The two-way interaction between gender and actor trust was also significant, with the association between actor trust and daily ERS being stronger for men

Table 4

*Effects of Gender and Relationship Variables on Daily ERS*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	-.02	.02	-1.40
Trust	-.06	.01	-6.69**
Relationship Quality	.00	.00	1.06
Partner Trust	-.04	.01	-4.98**
Partner Relationship Quality	.01	.00	2.86**
Relationship Length	-.00	.00	-2.57*
Step 2			
Gender*Trust	.03	.01	3.94**
Gender*Relationship Quality	-.01	.00	-4.63**
Gender*Relationship Length	-.00	.00	-1.57

\*  $p < .05$ ; \*\*  $p < .01$

( $b = -.09, t = -7.19, p < .001$ ) than women ( $b = -.02, t = -2.17, p < .05$ ). Although actor relationship quality was not associated with daily ERS, partner relationship quality had a positive relationship with daily ERS, such that individuals with a partner reporting greater relationship quality engaged in more daily ERS. The two-way interaction between gender and actor relationship quality was significant with the association between actor relationship quality and daily ERS being negative for women ( $b = -.01, t = -2.38, p < .05$ ), and positive for men ( $b = .01, t = 3.89, p < .001$ ). That is, women who reported better relationship quality engaged in less daily ERS, whereas men who reported better relationship quality engaged in greater levels of daily ERS. Relationship length was negatively associated with daily ERS such that individuals in a longer relationship tended to engage in less daily ERS with no differences between genders.

### **Daily Diary Analyses**

To keep the analyses theoretically focused and in line with the hypotheses, next day negative mood, overall relationship quality, and trust were used as the primary outcomes variables. For each daily diary model predicting an outcome variable on day  $j$ , the predictor variables consisted of the following: the outcome variable on day  $j - 1$ ; actor and partner daily ERS on day  $j - 1$ ; actor and partner attachment anxiety; actor and partner attachment avoidance; and actor and partner symptoms of depression. Main effects for partner variables were included to control for the interdependent nature of dyadic data. The two-way interactions between actor ERS and actor attachment anxiety, actor ERS and actor attachment avoidance, and actor attachment anxiety and avoidance were also included. When examining the influence of partner ERS on the outcome variable, the same two-way interactions were included replacing actor ERS with partner ERS (e.g., partner ERS\*actor attachment anxiety). In order to examine the influence of gender, a main effect of gender was

included, along with the two-way interactions between gender and actor ERS, actor attachment anxiety, and actor attachment avoidance, along with the three-way interactions of gender, actor ERS, and actor attachment anxiety or attachment avoidance. Again when partner ERS was of interest to the outcome variable, the main and interaction effects of gender included partner ERS rather than actor ERS (e.g., gender\*partner ERS\*actor attachment anxiety). The unstandardized regression coefficients for each model are presented below. Each model was re-run controlling for relationship length, time cohabitating, and age, separately. Importantly when controlling for these variables, all significant main and interaction effects remained robust.

**Objective 2: The Moderating Properties of Attachment Style on the Relationship between Daily ERS and Next Day Mood and Relationship Variables**

**Attachment style, daily ERS, and next day negative mood.** To illustrate the analytic strategy, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and next day negative mood was examined by modeling actor negative mood on day  $j$  as a function of (a) actor and partner negative mood on day  $j - 1$ , (b) actor and partner ERS on day  $j - 1$  (c) actor and partner symptoms of depression (d) actor and partner attachment anxiety, (e) actor and partner attachment avoidance, and the following interactions (f) actor ERS by actor attachment anxiety, actor ERS by actor attachment avoidance, and actor attachment anxiety by attachment avoidance. To examine the influence of gender, a main effect of gender was included along with the two-way interactions between gender and actor ERS, actor attachment anxiety, and actor attachment avoidance and the three-way interactions of gender, actor ERS, and actor attachment anxiety or attachment avoidance. Analyses were again conducted in a hierarchical fashion. The results are displayed in Table 5.

Table 5

*Effects of Gender, Attachment Styles, and ERS on Next Day (j) Negative Mood*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.09	.07	1.27
ERS (day <i>j</i> – 1)	.09	.13	0.73
Negative Mood (day <i>j</i> – 1)	.26	.03	8.86**
Depression	.10	.03	3.73**
Attachment Anxiety	.31	.20	1.56
Attachment Avoidance	.06	.18	0.32
Partner ERS (day <i>j</i> – 1)	.03	.11	0.30
Partner Negative Mood (day <i>j</i> – 1)	-.07	.03	-2.86**
Partner Depression	.07	.03	2.47*
Partner Attachment Anxiety	.31	.20	1.56
Partner Attachment Avoidance	-.26	.18	-1.44
Step 2			
Gender*ERS	-.23	.10	-2.33*
Gender*Attachment Anxiety	-.03	.10	-0.36
Gender*Attachment Avoidance	-.17	.10	-1.69
ERS*Attachment Anxiety	.09	.10	0.87
ERS*Attachment Avoidance	-.16	.11	-1.51
Attachment Anxiety*Avoidance	.19	.09	2.08*
Step 3			
Gender*ERS*Attachment Anxiety	.11	.12	0.97
Gender*ERS*Attachment Avoidance	-.20	.12	-1.71

\*  $p < .05$ ; \*\*  $p < .01$



The first model tested the prediction that individuals high on attachment anxiety, who also engaged in ERS, would experience negative psychological outcomes. Contrary to the fourth hypothesis, the two-way interaction between ERS and attachment anxiety was not significant, suggesting that for individuals high in attachment anxiety, there was no association between ERS and next day negative mood. However, the two-way interaction between gender and ERS was significant. For women, there was no relationship between ERS on day  $j - 1$  and next day negative mood ( $b = -.15, t = -0.95, ns$ ). For men, there was a marginal, positive association between ERS on day  $j - 1$  and next day negative mood ( $b = .31, t = 1.86, p = .07$ ). For men, the behaviour of ERS seemed to have negative consequences in terms of mood, which did not seem to be the case for women. Neither of the three-way interactions was significant.

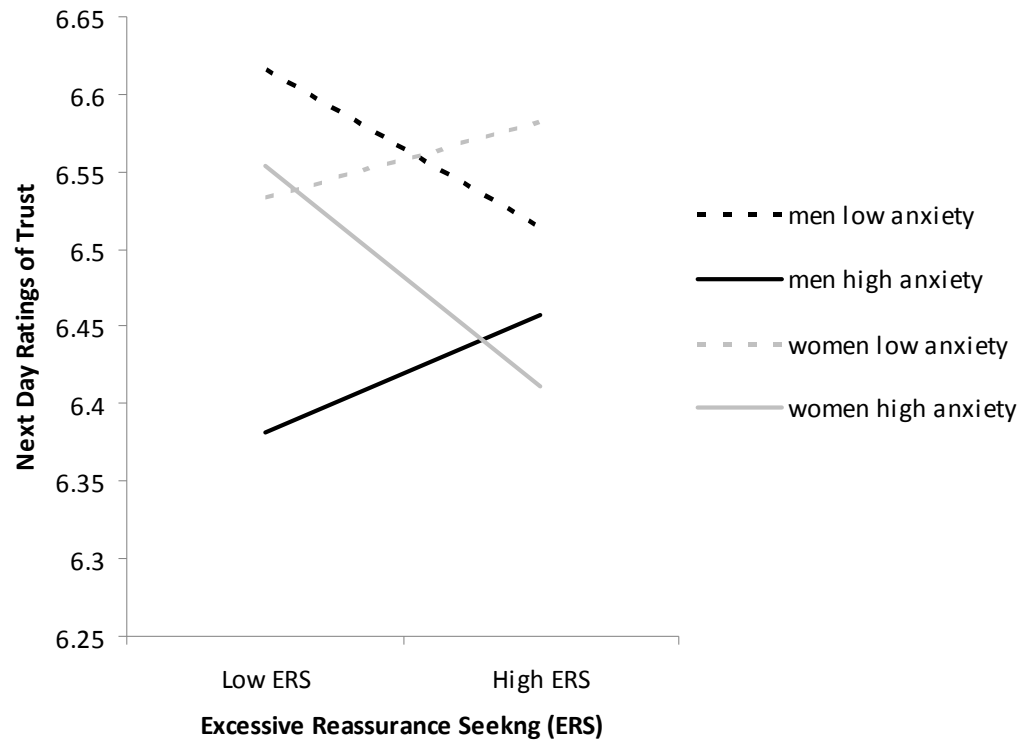
**Attachment style, daily ERS, and next day trust.** To test the prediction that attachment anxiety, in combination with ERS, would lead to negative interpersonal consequences, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and next day trust was examined. The results are displayed in Table 6. In partial support of the fourth hypothesis attachment anxiety moderated the association between daily ERS and next day trust, but only in women. That is, the three-way interaction between gender, ERS, and actor attachment anxiety was significant (see Figure 1). To determine the meaning of the interaction, the simple effects were examined for both men and women. Regression slopes were computed separately for two values of actors' attachment anxiety: one standard deviation above the mean and one standard deviation below the mean. For women, there was a negative association between ERS on day  $j - 1$  and next day trust, when actors' attachment anxiety was one standard deviation above the mean ( $b = -.08, t = -2.26, p < .05$ ), but not when it was one standard

Table 6

*Effects of Gender, Attachment Styles, and ERS on Next Day (j) Trust*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.004	.01	0.32
ERS (day <i>j</i> – 1)	-.04	.03	-1.52
Trust (day <i>j</i> – 1)	.35	.03	10.56**
Depression	-.02	.01	-2.92**
Attachment Anxiety	-.05	.04	-1.19
Attachment Avoidance	-.06	.04	-1.60
Partner ERS (day <i>j</i> – 1)	.02	.02	1.23
Partner Trust (day <i>j</i> – 1)	-.13	.03	-4.50**
Partner Depression	-.02	.01	-3.23**
Partner Attachment Anxiety	-.06	.04	-1.64
Partner Attachment Avoidance	-.02	.04	-0.45
Step 2			
Gender*ERS	-.02	.02	-1.12
Gender*Attachment Anxiety	.03	.02	1.44
Gender*Attachment Avoidance	.03	.02	1.70
ERS*Attachment Anxiety	-.03	.02	-1.39
ERS*Attachment Avoidance	-.02	.02	-0.87
Attachment Anxiety*Avoidance	-.03	.02	-1.88
Step 3			
Gender*ERS*Attachment Anxiety	-.05	.02	-2.13*
Gender*ERS*Attachment Avoidance	.07	.02	2.90**

\*  $p < .05$ ; \*\*  $p < .01$



*Figure 1.* The moderating effects of attachment anxiety by gender, on the relationship between daily ERS and next day trust.

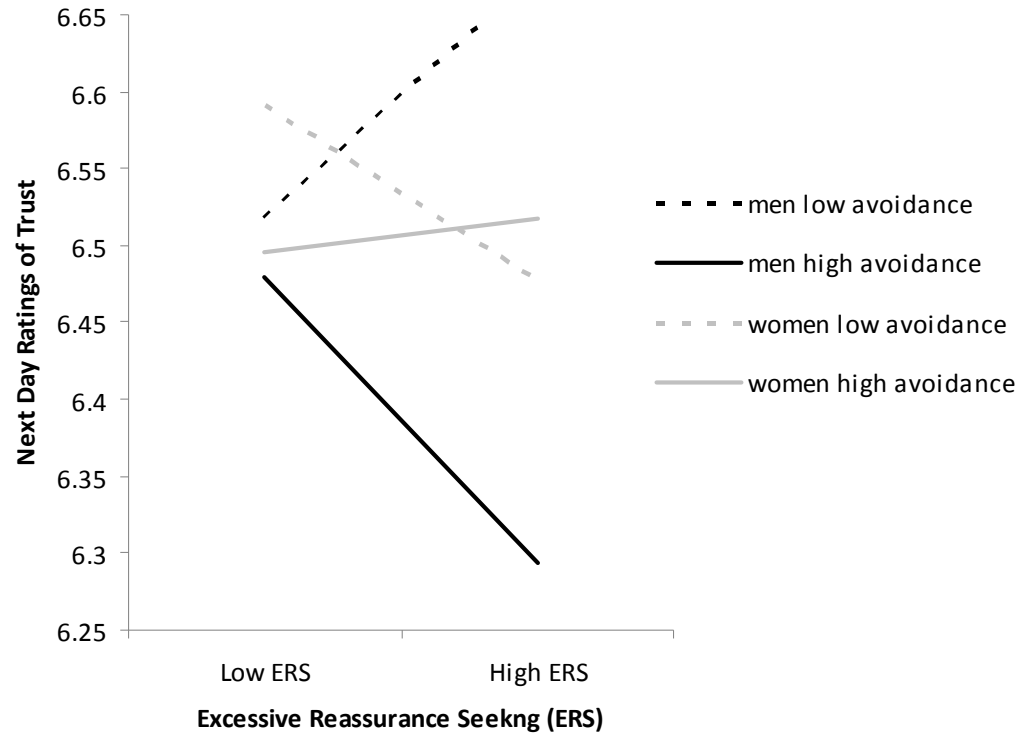
deviation below the mean ( $b = .03, t = 0.55, ns$ ). That is, for women high in attachment anxiety, engaging in ERS was associated with lower levels of next day trust. For men, there was no association between ERS on day  $j - 1$  and next day trust at either high ( $b = .04, t = 0.86, ns$ ) or low levels ( $b = -.06, t = -1.06, ns$ ) of attachment anxiety.

An unexpected finding was the three-way interaction between gender, ERS, and actor attachment avoidance was also significant (see Figure 2). For women, there was no association between ERS on day  $j - 1$  and next day trust at high ( $b = .00, t = 0.06, ns$ ) or low levels ( $b = -.04, t = -1.49, ns$ ) of attachment avoidance. For men, there was a negative association between ERS on day  $j - 1$  and next day trust, when actors' attachment avoidance was one standard deviation above the mean ( $b = -.12, t = -3.40, p < .01$ ), but not one standard deviation below the mean ( $b = .08, t = 1.90, ns$ ). For men high in attachment avoidance, engaging in ERS was associated with lower levels of trust the following day.

**Attachment style, daily ERS, and next day relationship quality.** As another test of the prediction that attachment anxiety, in combination with ERS, would lead to negative interpersonal consequences, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and next day relationship quality was examined. The results are displayed in Table 7. In contrast to the fourth hypothesis, the two-way interaction between ERS and attachment anxiety was not significant, suggesting that for individuals high in attachment anxiety, there was no association between ERS and next day relationship quality. Neither of the three-way interactions was significant.

**Objective 3: The Moderating Properties of Attachment Style on the Relationship between Actor Daily ERS and Partner Next Day Mood and Relationship Variables**

**Attachment style, daily ERS, and partner next day negative mood.** To examine the prediction that when individuals high in attachment anxiety engage in ERS it may have a



*Figure 2.* The moderating effects of attachment avoidance by gender, on the relationship between daily ERS and next day trust.

Table 7

*Effects of Gender, Attachment Styles, and ERS on Next Day (j) Relationship Quality*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.02	.08	0.27
ERS (day <i>j</i> – 1)	.03	.14	0.20
Relationship Quality (day <i>j</i> – 1)	.45	.02	19.05**
Depression	-.13	.03	-3.68**
Attachment Anxiety	.04	.25	0.16
Attachment Avoidance	-.18	.22	-0.80
Partner ERS (day <i>j</i> – 1)	.08	.12	0.66
Partner Relationship Quality (day <i>j</i> – 1)	-.15	.02	-6.96**
Partner Depression	-.09	.03	-2.64*
Partner Attachment Anxiety	-.24	.25	-0.97
Partner Attachment Avoidance	-.14	.22	-0.63
Step 2			
Gender*ERS	-.11	.11	-0.98
Gender*Attachment Anxiety	.22	.10	2.11*
Gender*Attachment Avoidance	-.01	.11	-0.10
ERS*Attachment Anxiety	-.12	.11	-1.12
ERS*Attachment Avoidance	-.07	.12	-0.55
Attachment Anxiety*Avoidance	-.04	.10	-0.37
Step 3			
Gender*ERS*Attachment Anxiety	-.09	.12	-0.76
Gender*ERS*Attachment Avoidance	.12	.13	0.93

\*  $p < .05$ ; \*\*  $p < .01$

negative psychological impact on their partner, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and partner next day negative mood was examined. The results are displayed in Table 8. The results did not support the sixth hypothesis since the two-way interaction between ERS and attachment anxiety was not significant suggesting that for individuals high in attachment anxiety, there was no association between ERS and partner next day negative mood. Neither of the three-way interactions was significant.

**Attachment style, daily ERS, and partner next day trust.** To test the hypothesis that individuals who are high in attachment anxiety, and engage in ERS, negatively influence their relationship, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and partner next day trust was examined. The results for each step are displayed in Table 9. Support was not found for the sixth hypothesis since the two-way interaction between ERS and attachment anxiety was not significant; this finding suggests that for individuals high in attachment anxiety, there was no association between ERS and partner next day trust. An unexpected finding was the three-way interaction between gender, ERS, and actor attachment avoidance was significant (see Figure 3). For women, there was no significant association between actor ERS on day  $j - 1$  and partner next day trust at either high ( $b = -.07, t = -1.74, ns$ ) or low levels ( $b = .04, t = 1.35, ns$ ) of attachment avoidance. For men, there was a positive association between actor ERS on day  $j - 1$  and partner next day trust, when actors' attachment avoidance was one standard deviation above the mean ( $b = .10, t = 2.56, p < .05$ ), but not when it was one standard deviation below the mean ( $b = -.00, t = -0.03, ns$ ). That is, for men high in attachment avoidance, engaging in ERS was associated with higher levels of partner reported trust.

Table 8

*Effects of Gender, Attachment Styles, and ERS on Partner Next Day (j) Negative Mood*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	-.09	.07	-1.27
ERS (day <i>j</i> – 1)	.03	.11	0.30
Negative Mood (day <i>j</i> – 1)	-.07	.03	-2.86 <sup>**</sup>
Depression	.07	.03	2.47 <sup>*</sup>
Attachment Anxiety	.31	.20	1.56
Attachment Avoidance	-.26	.18	-1.44
Partner ERS (day <i>j</i> – 1)	.09	.13	0.73
Partner Negative Mood (day <i>j</i> – 1)	.26	.03	8.86 <sup>**</sup>
Partner Depression	.10	.03	3.73 <sup>**</sup>
Partner Attachment Anxiety	.31	.20	1.56
Partner Attachment Avoidance	.06	.18	0.32
Step 2			
Gender*ERS	.06	.10	0.59
Gender*Attachment Anxiety	.09	.10	0.97
Gender*Attachment Avoidance	.12	.10	1.13
ERS*Attachment Anxiety	.01	.09	0.10
ERS*Attachment Avoidance	.06	.10	0.63
Attachment Anxiety*Avoidance	-.21	.09	-2.30 <sup>*</sup>
Step 3			
Gender*ERS*Attachment Anxiety	.16	.11	1.52
Gender*ERS*Attachment Avoidance	.01	.11	0.11

\*  $p < .05$ ; \*\*  $p < .01$

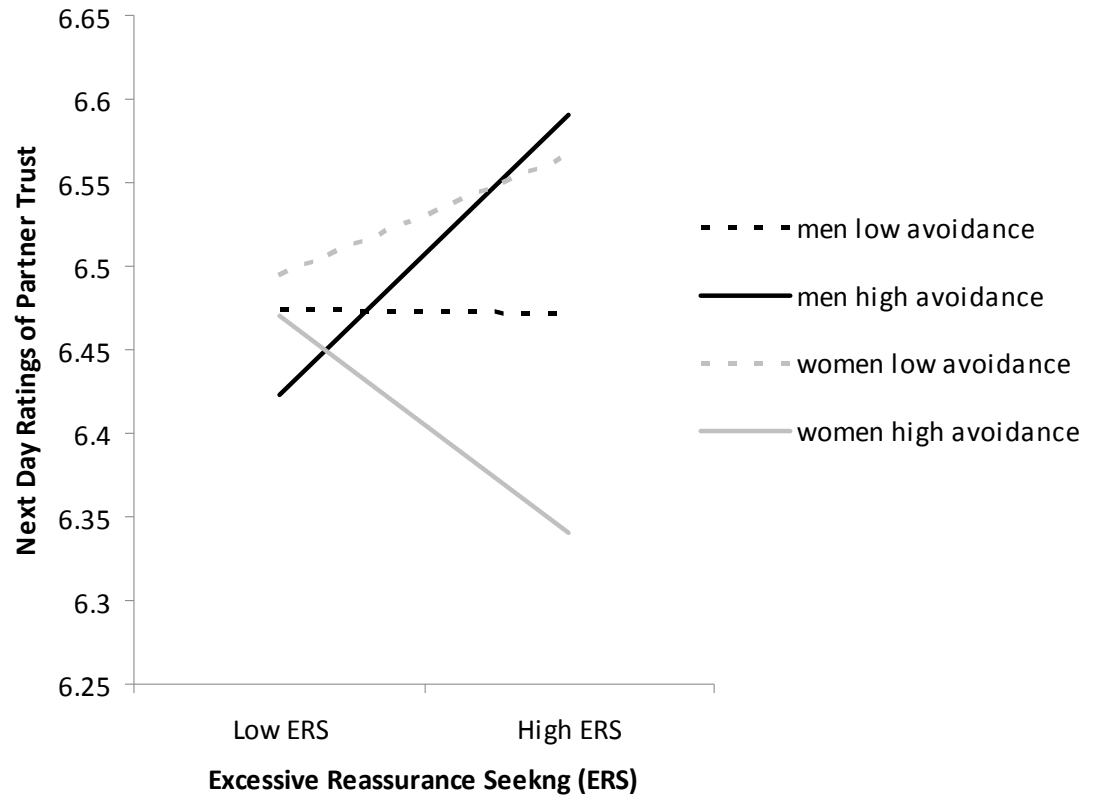


Table 9

*Effects of Gender, Attachment Styles, and ERS on Partner Next Day (j) Trust*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	-.004	.01	-0.32
ERS (day <i>j</i> – 1)	.02	.02	1.23
Trust (day <i>j</i> – 1)	-.13	.03	-4.50**
Depression	-.02	.01	-3.23**
Attachment Anxiety	-.06	.04	-1.64
Attachment Avoidance	-.02	.04	-0.45
Partner ERS (day <i>j</i> – 1)	-.04	.03	-1.52
Partner Trust (day <i>j</i> – 1)	.35	.03	10.56**
Partner Depression	-.02	.01	-2.92**
Partner Attachment Anxiety	-.05	.04	-1.19
Partner Attachment Avoidance	-.06	.04	-1.61
Step 2			
Gender*ERS	-.04	.02	-2.10*
Gender*Attachment Anxiety	-.02	.02	-0.82
Gender*Attachment Avoidance	-.03	.02	-1.74
ERS*Attachment Anxiety	-.01	.02	-0.38
ERS*Attachment Avoidance	.00	.02	0.22
Attachment Anxiety*Avoidance	.02	.02	0.93
Step 3			
Gender*ERS*Attachment Anxiety	-.01	.02	-0.80
Gender*ERS*Attachment Avoidance	-.05	.02	-2.70**

\*  $p < .05$ ; \*\*  $p < .01$



*Figure 3.* The moderating effects of attachment avoidance by gender, on the relationship between daily ERS and next day partner trust.

**Attachment style, daily ERS, and partner next day relationship quality.** As another test of the prediction that individuals who are high in attachment anxiety, and engage in ERS, negatively influence their relationship, the degree to which an individual's attachment style moderated the relationship between his or her daily ERS and partner next day relationship quality was examined. The results are displayed in Table 10. In contrast to the sixth hypothesis there was no two-way interaction between ERS and attachment anxiety suggesting that the for individuals high in attachment anxiety, there was no association between ERS and partner next day relationship quality. There were no significant three-way interactions.

**Objective 4: The Moderating Properties of Attachment Style on the Relationship between Partner Daily ERS and Actor Next Day Mood and Relationship Variables**

**Attachment style, partner daily ERS, and next day negative mood.** In order to examine the prediction that individuals with an avoidant attachment style respond negatively in terms of their mood to their partners' ERS, the degree to which an actor's attachment style moderated the relationship between his or her partner's daily ERS and actor next day negative mood was tested. The results are displayed in Table 11. In contrast to the seventh hypothesis, the two-way interaction between partner ERS and attachment avoidance was not significant suggesting that for individuals with an avoidant attachment style, there was no association between partner ERS and next day negative mood. Neither of the three-way interactions was significant.

**Attachment style, partner daily ERS, and next day trust.** In order to test the prediction that individuals with an avoidant attachment style experience negative relational outcomes in response to partner ERS, the degree to which an actor's attachment style moderated the relationship between his or her partner's daily ERS and actor next day trust

Table 10  
*Effects of Gender, Attachment Styles, and ERS on Partner Next Day (j) Relationship Quality*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	-.02	.08	0.27
ERS (day <i>j</i> – 1)	.08	.12	0.66
Relationship Quality (day <i>j</i> – 1)	-.15	.02	-6.96**
Depression	-.09	.03	-2.64*
Attachment Anxiety	-.24	.25	-0.97
Attachment Avoidance	-.14	.22	-0.63
Partner ERS (day <i>j</i> – 1)	.03	.14	0.20
Partner Relationship Quality (day <i>j</i> – 1)	.45	.02	19.05**
Partner Depression	-.13	.03	-3.68**
Partner Attachment Anxiety	.04	.25	0.16
Partner Attachment Avoidance	-.18	.22	-0.80
Step 2			
Gender*ERS	-.09	.10	-0.89
Gender*Attachment Anxiety	-.19	.10	-1.79
Gender*Attachment Avoidance	.03	.11	0.24
ERS*Attachment Anxiety	.11	.10	1.11
ERS*Attachment Avoidance	-.03	.11	-0.27
Attachment Anxiety*Avoidance	.00	.10	0.00
Step 3			
Gender*ERS*Attachment Anxiety	-.16	.11	-1.44
Gender*ERS*Attachment Avoidance	-.06	.12	-0.49

\*  $p < .05$ ; \*\*  $p < .01$

Table 11

*Effects of Gender, Attachment Styles, and Partner ERS on Next Day (j) Negative Mood*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.09	.07	1.27
ERS (day <i>j</i> – 1)	.09	.13	0.73
Negative Mood (day <i>j</i> – 1)	.26	.03	8.86**
Depression	.10	.03	3.73**
Attachment Anxiety	.31	.20	1.56
Attachment Avoidance	.06	.18	0.32
Partner ERS (day <i>j</i> – 1)	.03	.11	0.30
Partner Negative Mood (day <i>j</i> – 1)	-.07	.03	-2.86**
Partner Depression	.07	.03	2.47*
Partner Attachment Anxiety	.31	.20	1.56
Partner Attachment Avoidance	-.26	.18	-1.44
Step 2			
Gender*Partner ERS	-.07	.10	-0.75
Gender*Attachment Anxiety	-.06	.10	-0.60
Gender*Attachment Avoidance	-.14	.10	-1.34
Partner ERS*Attachment Anxiety	.21	.09	2.23*
Partner ERS*Attachment Avoidance	.08	.10	0.79
Attachment Anxiety*Avoidance	.18	.09	1.89
Step 3			
Gender*Partner ERS*Attachment Anxiety	-.09	.09	-1.01
Gender*Partner ERS*Attachment Avoidance	-.10	.10	-0.95

\*  $p < .05$ ; \*\*  $p < .01$

was examined. The results are displayed in Table 12. The results did not support the seventh hypothesis since the two-way interaction between partner ERS and attachment avoidance was not significant. This finding suggests that for individuals with an avoidant attachment style, there was no association between partner ERS and next day trust. An unexpected finding was the three-way interaction between gender, partner ERS, and actor attachment anxiety was significant ( $b = .05, t = 3.22, p < .01$ ; see Figure 4). For women, there was a positive association between partner ERS on day  $j - 1$  and actor next day trust when attachment anxiety was one standard deviation above the mean ( $b = .11, t = 3.51, p < .01$ ), but not when attachment anxiety was one standard deviation below the mean ( $b = -.03, t = -0.69, ns$ ). Women high in attachment anxiety with a partner who engaged in greater ERS reported higher levels of next day trust. For men, there was no significant association between partner ERS on day  $j - 1$  and actor next day trust at high ( $b = -.05, t = -1.24, ns$ ) or low levels ( $b = .05, t = 1.48, ns$ ) of attachment anxiety.

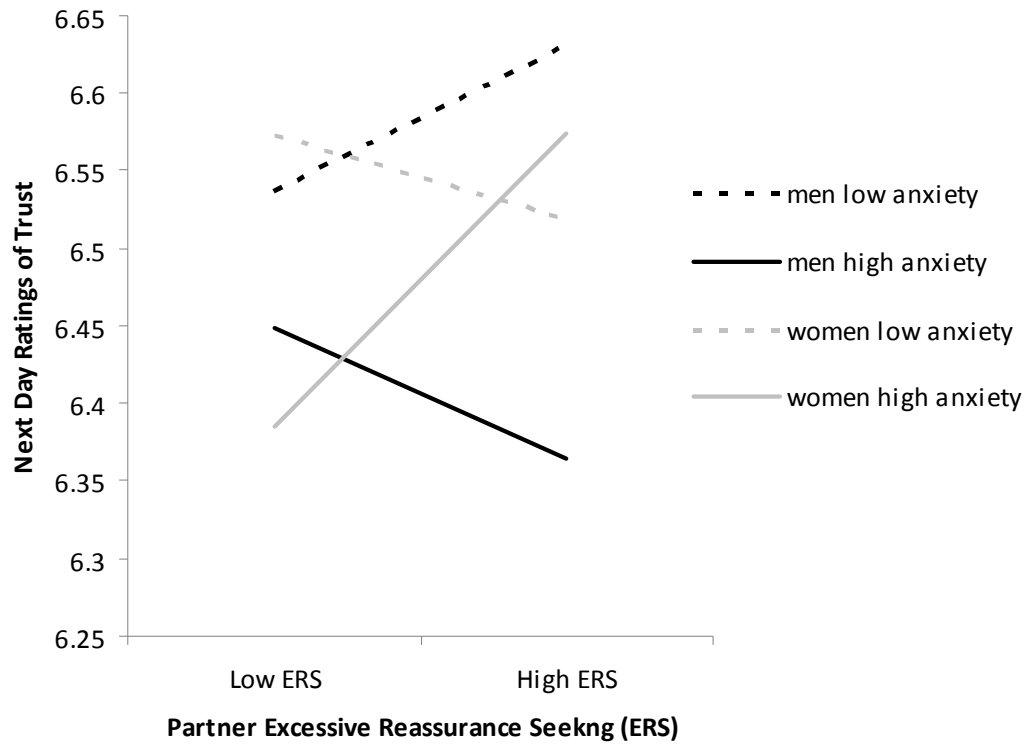
**Attachment style, partner daily ERS, and next day relationship quality.** As another test of the prediction that individuals with an avoidant attachment style experience negative relational outcomes in response to partner ERS, the degree to which an actor's attachment style moderated the relationship between his or her partner's daily ERS and actor next day relationship quality was examined. The results are displayed in Table 13. In line with the seventh hypothesis, the two-way interaction between partner ERS and actor attachment avoidance was significant ( $b = -.21, t = -1.97, p = .05$ ). However, the results were in the opposite direction as predicted by hypothesis seven. The relationship between partner ERS and next day actor relationship quality was not significant when attachment avoidance was one standard deviation above the mean ( $b = -.10, t = -0.62, ns$ ) and positive when attachment avoidance was one standard deviation below the mean ( $b = .34, t = 2.01, p < .05$ ).

Table 12

*Effects of Gender, Attachment Styles, and Partner ERS on Next Day (j) Trust*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.004	.01	0.32
ERS (day <i>j</i> – 1)	-.04	.03	-1.52
Trust (day <i>j</i> – 1)	.35	.03	10.56**
Depression	-.02	.01	-2.92**
Attachment Anxiety	-.05	.04	-1.19
Attachment Avoidance	-.06	.04	-1.60
Partner ERS (day <i>j</i> – 1)	.02	.02	1.23
Partner Trust (day <i>j</i> – 1)	-.13	.03	-4.50**
Partner Depression	-.02	.01	-3.23**
Partner Attachment Anxiety	-.06	.04	-1.64
Partner Attachment Avoidance	-.02	.04	-0.45
Step 2			
Gender*Partner ERS	.03	.02	1.60
Gender*Attachment Anxiety	.01	.02	0.79
Gender*Attachment Avoidance	.04	.02	1.95
Partner ERS*Attachment Anxiety	.00	.02	0.26
Partner ERS*Attachment Avoidance	-.03	.02	-1.55
Attachment Anxiety*Avoidance	-.02	.02	-1.30
Step 3			
Gender*Partner ERS*Attachment Anxiety	.05	.02	3.22**
Gender*Partner ERS*Attachment Avoidance	.03	.02	1.41

\*  $p < .05$ ; \*\*  $p < .01$



*Figure 4.* The moderating effects of attachment anxiety by gender, on the relationship between daily partner ERS and next day trust.



Table 13

*Effects of Gender, Attachment Styles, and Partner ERS on Next Day (j) Relationship Quality*

Variable	<i>b</i>	<i>SE</i>	<i>t</i>
Step 1			
Gender	.02	.08	0.27
ERS (day <i>j</i> – 1)	.03	.14	0.20
Relationship Quality (day <i>j</i> – 1)	.45	.02	19.05**
Depression	-.13	.03	-3.68**
Attachment Anxiety	.04	.25	0.16
Attachment Avoidance	-.18	.22	-0.80
Partner ERS (day <i>j</i> – 1)	.08	.12	0.66
Partner Relationship Quality (day <i>j</i> – 1)	-.15	.02	-6.96**
Partner Depression	-.09	.03	-2.64*
Partner Attachment Anxiety	-.24	.25	-0.97
Partner Attachment Avoidance	-.14	.22	-0.63
Step 2			
Gender*Partner ERS	.02	.10	0.16
Gender*Attachment Anxiety	.17	.10	1.70
Gender*Attachment Avoidance	-.02	.11	-0.16
Partner ERS*Attachment Anxiety	-.08	.10	-0.74
Partner ERS*Attachment Avoidance	-.21	.11	-1.97
Attachment Anxiety*Avoidance	.01	.10	0.10
Step 3			
Gender*Partner ERS*Attachment Anxiety	.14	.10	1.39
Gender*Partner ERS*Attachment Avoidance	-.07	.11	-0.59

\*  $p < .05$ ; \*\*  $p < .01$

That is, when actors were low in attachment avoidance, partner ERS was associated with higher actor next day relationship quality. Neither of the three-way interactions was significant.

### **Discussion**

Excessive reassurance seeking has recently emerged as a potential risk factor for the development and/or maintenance of depression. Coyne's (1976) interpersonal theory of depression proposed that individuals with mild depression, in response to their symptoms of guilt and low self-worth, seek reassurance from close others in order to test the security of their relationships. More recent research has demonstrated that individuals with an anxious attachment style, who have a high need for closeness and a fear of abandonment, engage in ERS in order to assuage their insecurities. The current study provided an original contribution to the literature by gaining a comprehensive understanding of how attachment styles influence the ERS model as it unfolds in real time, while controlling for symptoms of depression.

In line with prior research, in both men and women, an anxious attachment style was associated with higher levels of daily ERS, and an avoidant attachment style with lower daily ERS. Lower levels of trust were also associated with greater daily ERS, whereas higher relationship quality was associated with greater daily ERS in men, and lower daily ERS in women. The current study extended the literature by demonstrating that for women high in anxious attachment, engaging in ERS leads to lower levels of trust, rather than decreasing relationship insecurities. Men with an avoidant attachment style also reported lower levels of trust following ERS; in contrast, their partners reported higher levels of trust. This study was also the first to examine how an individual's attachment style influenced how he or she perceived ERS from his or her partner. Women with an anxious attachment style, for

example, seemed to like when their male partners engaged in ERS, as illustrated by higher levels of reported trust following partner ERS. These results support the idea that attachment styles play an important role in determining whether or not ERS will lead to negative interpersonal consequences.

### **Objective 1: The Contribution of Attachment Style and Global Relationship Variables to Daily ERS**

Part of the first objective was to replicate the positive association found in the literature between attachment anxiety and overall and daily ERS (Abela et al., 2005; Davila, 2001; Evraire & Dozois, 2014; Evraire et al., 2014; Katz et al., 2009; Shaver et al., 2005). In support of prior research and the first hypothesis, higher attachment anxiety was associated with greater levels of daily ERS in both men and women. This finding is the first direct replication of Shaver et al., the only other diary study of the ERS model, who also found that higher levels of attachment anxiety were associated with greater daily ERS from a romantic partner. Individuals with an anxious attachment style have low self-worth, a fear of abandonment, and use hyperactivating strategies (e.g., proximity seeking) to manage distress (Bartholomew, 1990; Cobb & Davila, 2009; Moran et al., 2008). As such, they likely engage in reassurance seeking with close others, as a means of determining their self-worth and security in their relationships (Brennan & Carnelley, 1999). This finding augments the literature by offering additional support regarding the relationship between an IWM reflecting a high level of concern surrounding relationships, in particular a fear of abandonment or rejection, and ERS.

The second part of objective one was to examine the association between attachment avoidance and daily ERS. In line with the second hypothesis, higher attachment avoidance was associated with lower levels of daily ERS in both men and women. The association

between attachment avoidance and ERS in the literature is mixed, with some studies finding no association between the two variables (Davila, 2001; Shaver et al., 2005) and others finding a negative association (Davila, 2001; Evraire & Dozois, 2014; Evraire, Ludmer, & Dozois, 2014). Conceptually, however, it makes sense that individuals with an avoidant attachment style, who tend to minimize the expression of negative emotions and use deactivating strategies to deal with distress, would engage in lower levels of ERS.

In an exploratory manner, the influence of partner attachment style on an individual's daily ERS was also examined. Individuals with a partner high in attachment anxiety reported greater daily ERS, while individuals with a partner high in attachment avoidance reported lower levels of daily ERS. These findings are the first to suggest that individuals may tailor their reassurance seeking behaviour as a reflection of their partner's attachment style.

This study was also the first to examine how different aspects of a relationship (trust and overall relationship quality) were associated with daily ERS. In line with the third hypothesis, lower levels of actor and partner trust were associated with greater daily ERS in both men and women. Trust is defined on the basis of dependability, or the confidence that an individual's partner will be concerned about and responsive to his or her needs, desires, and goals, along with faith in the future of the relationship (Mikulincer, 1998). An important component of both anxious attachment and trust concerns relationship security and the ability to rely on one's partner. Individuals high in attachment anxiety hold a negative sense of trust, attach high importance to negative trust related events, and cope with such events by engaging in security seeking behaviours such as ERS (Mikulincer; Shaver & Hazan 1993). As such, it would seem that individuals who reported low levels of trust in their relationships, and those who had partners reporting lower levels of trust, may have engaged in ERS as a means of checking on their status in the relationship and abating their insecurities.

A significant association between overall relationship quality and daily ERS was also found; however, this effect differed across genders. Women who reported a higher overall relationship quality reported engaging in less ERS, whereas men who reported a higher relationship quality reported higher levels of ERS. For women, who in the current sample were generally higher in attachment anxiety than men, having a better relationship quality likely quelled relationship insecurities and fears of rejection, which are known to be associated with ERS. Gender-role expectations assume that men will not excessively seek reassurance in a relationship (Shaver et al., 2005). This fact, along with the finding that men in this sample were generally higher in attachment avoidance than were women, suggests that once men feel safe and secure with their romantic partner, they may no longer worry about engaging in a non-normative behaviour that when used appropriately, could have positive benefits for their relationship (Reis & Shaver, 1988; Shaver et al.). Finally relationship length was also associated with daily ERS such that individuals who had been together longer reported engaging in less ERS. Again, having been together for a longer period of time could signal to couples that they are secure in their relationship, thus decreasing the need to seek reassurance to assess one's status in the relationship.

**Objective 2: The Moderating Properties of Attachment Style on the Relationship between Daily ERS and Next Day Mood and Relationship Variables**

In line with the fourth hypothesis, women high in attachment anxiety who engaged in ERS experienced decreases in levels of trust. This finding provides the first direct evidence for a potential explanation as to why individuals high in attachment anxiety do not seem to benefit from the reassuring feedback provided by their partners and, as a result, seek more reassurance. Individuals with an anxious attachment style rely on feedback from others to determine their self-worth and security in their relationships (Brennan & Carnelley, 1999).

However, if after seeking reassurance they feel even more insecure about their relationships, as evidenced by lower levels of trust, their IWM would remain activated, and their fears of rejection and abandonment would fail to be assuaged leading to further engagement in ERS. It is important to note that this finding only captures one side of the relationship. Perhaps partner's reactions to such ERS could influence whether or not individuals high in attachment anxiety experience this decrease in trust following ERS. Future studies need to expand this dynamic examination of the ERS model using other diary studies, or by coding live couple interactions to capture moment to moment delivery of, and reactions to ERS. Although it was unexpected to find this effect in women but not men, the result makes sense given that the men in this sample had lower levels of attachment anxiety than women, and higher levels of attachment avoidance. It would be interesting in future studies to recruit a sample of men high in attachment anxiety to see whether or not the effect observed in women could be replicated.

Contrary to predictions, no support was found for an association between individuals high in attachment anxiety and ERS experiencing changes in negative mood or relationship quality. With respect to negative mood as the outcome variable, this finding is in contrast to the work done by Shaver et al. (2005), who found that for women high in attachment anxiety, reassurance seeking on a given day was associated with more negative mood the next day. A potential explanation for this discrepancy could have to do with the different methodological and analytic approaches between studies. The current study was the first to truly capture the dyadic nature of the ERS model, by including both actor and partner variables across analyses and running male and female partners together to account for the interdependent nature of couples data. Also, the present study controlled for symptoms of depression across analyses, in order to make conclusions about the additive contributions of attachment styles

in the ERS model. Shaver et al., on the other hand, examined the influence of attachment on ERS without considering depression. Given the moderate, positive correlation between symptoms of depression and attachment anxiety, there would likely be less variance left to predict in the current study compared to that of Shaver et al. Along these lines, there was a considerable lack of variability in negative mood scores, with the current sample being generally quite happy. Also, how daily reassurance was conceptualized differed across studies. The current sample modeled daily reassurance seeking by using two items directly from the DIRI-RS (question 2 and 4), whereas Shaver et al. assessed daily reassurance seeking by asking couples “How much did you ask your partner for reassurance today?” Thus, Shaver et al.’s conceptualization of ERS did not account for whether or not the reassurance had to do with the question of a partner’s care, and failed to account for how partners reacted to ERS in terms of getting irritated or fed up.

Although attachment style did not moderate the association between daily ERS and negative mood, there was an association between daily ERS and increases in next day negative mood for men. A potential explanation for this finding is that ERS is a non-normative behaviour for men, particularly men high in attachment avoidance, and so their female partners may react negatively to their ERS, leading to increases in negative mood. Future research could examine this gender difference more closely to determine whether or not men feel differently about themselves after they seek reassurance, or evoke negative reactions in their female partners.

The finding that high attachment anxiety in combination with ERS was not related to changes in relationship quality is in line with Shaver et al.’s (2005) finding that relationship quality was associated directly with attachment avoidance, rather than with ERS, anxious attachment, or the interaction between the two. Although both Coyne (1976) and Joiner et al.

(1992) suggest that relationship variables mediate the relationship between ERS and increases in symptoms of depression, given the apparent lack of association between ERS and relationship quality, Shaver et al. suggested that relationship quality is likely not a mediating variable in the ERS model. Another potential explanation is that by examining these processes across one day, the ERS model did not have enough time to unfold. For example, it could be that ERS would lead to decreases in mood or relationship quality, but that this process may take a few days to see significant observable changes. Future studies could examine how the ERS model plays out across several days by using growth curve analyses.

An interesting finding that was not predicted was that men high in attachment avoidance who engaged in ERS experienced decreases in levels of trust. Engaging in ERS may have led to decreased trust since individuals with an avoidant attachment style are uncomfortable being vulnerable in relationships, hold negative models of others (as unresponsive and untrustworthy), and typically use deactivating strategies to deal with distress. However, it is difficult to understand this finding given that it only captures one side of the relationship. It may be the case that how the female partner reacts to ERS coming from a typically avoidant male may influence whether or not he experiences a decrease in trust following ERS.

The fifth hypothesis was that attachment anxiety would predict aspects of the ERS model above and beyond depression. In support of this prediction and previous literature (Evraire & Dozois, 2011; 2014; Evraire et al., 2014), both attachment anxiety and attachment avoidance demonstrated incremental predictive power for ERS, and the ERS model, over and above the influence of depression. However, in line with Coyne's (1976) interpersonal theory of depression, symptoms of depression were also associated with ERS and ERS outcomes,



while controlling for styles of attachment. Given these results, the details of Coyne's model may need to be refined to incorporate these findings.

**Objective 3: The Moderating Properties of Attachment Style on the Relationship between Daily ERS and Partner Next Day Mood and Relationship Variables**

The sixth hypothesis, which predicted that the way in which individuals high in attachment anxiety engaged in ERS would negatively impact their partner's mood, relationship quality, and/or trust, was not supported. A potential explanation for the lack of significant results with negative mood as an outcome variable, has to do with the fact that the mean negative mood score in this sample was quite low and had little variance, even less so after controlling for symptoms of actor and partner depression across analyses. With regards to the relationship outcomes, these findings are again in line with Shaver et al.'s (2005) suggestion that relationship quality is likely not a mediating variable in the ERS model. It could also be the case that partners only react negatively to ERS from their anxiously attached partner after several days of constant reassurance seeking; or significant changes in a partner's mood, relationship quality, or trust in response to ERS may take a few days to surface. Growth curve analyses would be able to account for such delays. Furthermore, for these analyses, the attachment style of the partner was not accounted for, and could influence how he or she reacts to receiving ERS from an anxiously attached individual.

A finding that was not predicted was that when men high in attachment avoidance engaged in daily ERS, their partners experienced positive relationship benefits as reflected in increases in next day trust. This finding is in line with Reis and Shaver's (1988) model which suggests that behavioural support-seeking exchanges between two partners serve as an important foundation for the creation of close bonds. Naturally, individuals with an avoidant attachment style have a tendency to conceal their negative emotions, and downplay the

importance of receiving support from their partner when coping with distress (Cobb & Davila, 2009; Moran et al., 2008). These dismissive tendencies may lead romantic partners to perceive that their potential contributions to their partner's coping process are not acknowledged or appreciated (Chow, Buhrmester, Tan, 2014). As a result, individuals who exhibit an avoidant attachment style tend to perceive their romantic relationships as less intimate, and their partners do the same (Chow et al., 2014). By engaging in ERS, individuals high in attachment avoidance would likely signal to their partners that they are interested in receiving support, which could reflect to their partners a greater sense of closeness. An increase in closeness may also contribute to increases in trust, or the dependability of one's partner, overall faith in the relationship, and confidence that one's partner will be an active participant in the relationship (Mikulincer, 1998).

This finding augments the literature which suggests that there may be both secure and insecure forms of reassurance seeking (Evraire & Dozois, 2011; 2014; Shaver et al., 2005). It may not be the behaviour or frequency of ERS per se, but rather characteristics of the individual in combination with reassurance seeking that are associated with negative psychological and/or interpersonal consequences. For example, for individuals high in attachment avoidance, who typically distance themselves from the support of close others, engaging in ERS actually has positive benefits on their relationship. Consistent with this idea, Evraire & Dozois (2014) found that for individuals high in avoidant attachment, there was no association between ERS and symptoms of depression 6 weeks later. Shaver et al. also found that for highly anxious women, reassurance seeking on a given day was associated with more negative mood the next day; however for non-anxious women, reassurance seeking on a given day led to positive mood the next day. Furthermore, in previous research examining ERS, including the current study, mean ERS levels are actually quite low (e.g.,

1.86 to 3.04 out of 7), further suggesting that reassurance seeking may not be excessive in terms of frequency, but rather how it is delivered as a result of an individual's IWM of core-beliefs, or symptoms of depression (Evraire & Dozois, 2011).

**Objective 4: The Moderating Properties of Attachment Style on the Relationship between Partner Daily ERS and Actor Next Day Mood and Relationship Variables**

In line with the fourth objective, attachment anxiety influenced how women reacted to receiving ERS from their male partners in terms of trust. More specifically, women high in attachment anxiety, who tend to engage in ERS themselves, reacted positively to receiving ERS from their partners by reporting higher levels of trust. Although a novel finding, this result may be explained in part by the similarity hypothesis in partner preference and selection based on attachment styles (for a review see Holmes & Johnson, 2009; Strauss, Morry, & Kito, 2012). The similarity hypothesis proposes that individuals choose romantic partners who have a similar attachment style as the self, and are more satisfied in their relationships with such partners. Higher levels of attitude similarity between individuals are also related to increased fondness (Miller, Perlman, & Brehm, 2007). Alternative hypotheses to consider with respect to partner selection include the complementarity hypothesis (a preference for partners who fall in the opposite regions of anxiety and avoidance to the self) and the security hypothesis (security is preferred over insecure types of attachment). In a recent test of all three hypotheses, Strauss et al. (2012) examined the relationships between self-attachment style, perceptions of partner attachment style, attachment style of an ideal partner, and relationship variables (satisfaction, trust, supportiveness and feeling validated). Overall, when describing their ideal partner, individuals had a preference for similar but more secure partners (lower anxiety and lower avoidance). Individuals perceived their current partners as being similar to the self, and greater similarity on attachment anxiety, in

particular, predicted positive relationship outcomes including relationship satisfaction and trust. In line with the similarity hypothesis, and given that ERS seems to reflect the IWM of an individual with an anxious attachment style (fear of abandonment or rejection), individuals high in attachment anxiety likely interpret partner ERS as an indication of similarity and thus experience increases in trust as a result. In terms of gender differences, again it may be the case that this effect was not observed in men given that they reported lower levels of attachment anxiety and higher levels of attachment avoidance than the women in this sample.

In contrast to the seventh hypothesis, attachment avoidance did not seem to negatively influence how men or women reacted to partner ERS in terms of low mood, relationship quality, or trust. This result supports the complementary hypothesis of partner selection, which suggests that individuals prefer partners who fall in the opposite region as them on the dimensions of attachment anxiety and avoidance. Although Strauss et al. (2012) found support for the similarity and security hypotheses with respect to attachment anxiety, higher avoidance predicted ideals and perceptions of the partner that were higher in anxiety (complementary). The complementarity hypothesis predicts that individuals high in attachment avoidance would prefer anxiously attached partners, because they confirm their attachment-related expectations that others are dependent and clingy (Holmes & Johnson, 2009). This idea also fits with self-verification theory which proposes that individuals have a strong desire to maintain a predictable social environment, by interacting with others who confirm their expectations, allowing for the maintenance of consistent self-image (Swann, 1983; Swann, Stein-Seroussie, & Giesler, 1992).

Although supportive of the complementary hypothesis, the current results are not consistent with Shaver et al. (2005), who found that avoidant women experienced ERS by

their male partners as aversive, having a negative influence on relationship quality. One potential explanation for this discrepancy has to do with the difference in relationship characteristics across studies. Shaver et al.'s study included a younger undergraduate sample, none of whom were married, with a median relationship length of a year. The current sample consisted of older couples from the community who were all living together, half of which were married, and had been together for an average length of 8 years. These differences may have come into play given that the literature has found support for the complementarity hypothesis in more long-term relationships, while the similarity hypothesis tends to be more characteristics of relationships in the earlier stages (for a review see, Holmes & Johnson, 2009).

Another unexpected result was the finding that individuals low in attachment avoidance (an indirect reflection of secure attachment), with a partner who engaged in ERS reported increases in relationship quality. This finding is directly in line with Reis and Shaver's (1988) model which posits that behavioural support-seeking exchanges between two partners contribute to the development of intimacy and close bonds.

### **Limitations and Implications**

Although the current study contributes to the ERS in a number of important ways, its limitations should be noted. The first potential limitation has to do with the fact that attachment anxiety and avoidance were conceptualized as dispositional determinants of ERS, mood, and relationship variables. However, some could argue that ERS, mood, or relationship qualities could influence the development of an individual's attachment style. In support of the conceptualization of attachment styles as dispositions, the attachment literature has demonstrated temporal stability in attachment scores over months and even years (Sroufe, 2005; Sroufe, Egeland, Carlson & Collins, 2005). That being said, if attachment was

measured when participants were younger, and reassurance seeking was assessed at the current time point, the idea that non-secure attachment can cause certain maladaptive feedback seeking behaviours may have been supported. As such, future studies should consider replicating the current experiment using a longitudinal design.

Second, all of the analyses were based on self-report measures of depression, ERS, and relationship quality, rather than interview or behavioural observations. Starr and Davila (2008) found that self-report measures of depression potentially inflate the relationship between ERS and depression. However, there remains a significant association between depression and ERS when interview measures of depression are used (Starr & Davila). Given that 92% of studies examining the association between ERS and depression rely solely on self-report data it would be interesting to study the dynamics of the ERS model explored in the current study as they unfold in real time during couple interactions. Observational methods of ERS, such as those used by Joiner and Metalsky (2001) and Knobloch et al., (2011), and of relationship quality such as those used by Gottman (1994), could be implemented in such a study.

Another limitation is that the findings may not generalize to couples experiencing higher/clinical levels of depression or insecurity/dissatisfaction in their relationship. Couples in the current sample were only mildly depressed, did not report a lot of variability in negative mood, and were relatively satisfied in their relationships. Starr and Davila (2008) found that studies with patients with MDD yielded a marginally weaker association between depression and ERS than those with community samples. This finding may suggest that the dynamics of the ERS model may change as individuals become more depressed. While ERS may initially lead to the deterioration of an individual's social environment and escalate symptoms of depression, when symptoms enter into the range of major depression,

reassurance seekers may have habituated to rejection, become more socially isolated, and given up on seeking support. As such the current study needs to be replicated in a more distressed and clinically depressed population. A related limitation to note concerns the rather homogenous demographics of the sample. The majority of couples were White, highly educated, and employed outside of the home. As such, the applicability of these findings to different populations of individuals (e.g., different ethnicities, unemployed) remains uncertain.

The findings of the current study have a number of important theoretical and clinical implications. Both attachment anxiety and attachment avoidance showed incremental predictive power for aspects of the ERS model over and above the influence of depression. However, symptoms of depression were also associated with ERS above and beyond attachment styles. Thus, the current findings suggest that individuals may not engage in ERS solely because of symptoms of depression, but also as a function of IWM's reflecting insecurity in relationships. As such, the details of Coyne's (1976) interpersonal theory of depression may need to be refined in order to incorporate these findings. The ERS model may also need to be re-conceptualized to account for the notion that there may be both secure and insecure forms of reassurance seeking, with the insecure form being excessive in that it leads to negative psychological or interpersonal consequences. For example, the results of the current study suggest that it is not the behaviour or frequency of ERS per se that is associated with negative relational outcomes; rather, it is the combination of an IWM reflecting insecurity in relationships, and ERS, that leads to negative social consequences. Seeking reassurance actually seems to have beneficial psychological or relational effects for secure individuals or those high in avoidant attachment. The current study was also the first to suggest that ERS may be received differently depending on partner attachment styles, which

could in turn moderate the psychological or relational consequences of the reassurance seeking.

A number of clinical implications are also evident from these results. It is clear from the findings, as well as previous research, that individuals who engage in ERS do so because of an IWM reflecting a fear of abandonment/rejection or insecurity in relationships. Furthermore, it is clear that although individuals likely engage in ERS to assuage relationship insecurities, ERS seems to decrease levels of trust and likely increase fears about the relationship. As such, clinical interventions targeted towards ERS can focus on this theme with the hopes of helping individuals develop more effective strategies for decreasing their relationship insecurities. Given the dyadic nature of the ERS model, including partners in therapy sessions for individuals who engage in ERS would likely enhance change in the individual as well as improve their social environment. While the reasons behind an individual's ERS are important targets for treatment, the current study demonstrated that how close others perceive and react to ERS is equally important. Finally this study emphasized the importance of considering both individuals in a dyad as agents of change and applying this notion to therapy.

## **Conclusion**

Interpersonal factors are among the strongest predictors of the course and duration of an episode of depression (Brown & Moran, 1994; Hooley & Teasdale, 1989; Lara, Leader, & Klein, 1997). Couple interactions play an important role in the onset, maintenance, and exacerbation of depression. Interpersonal behaviours, such as the inappropriate solicitation of interpersonal feedback through ERS, have recently emerged as possible risk factors for interpersonal rejection and subsequent increases in symptomatology (Davila et al., 2009). The current study accounted for a number of limitations in the ERS literature, and was the



first daily diary study to account for the dyadic nature of the ERS model, by accounting for the statistical dependence of couples across analyses. In line with the ERS literature, an anxious attachment style was associated with higher levels of daily ERS, and an avoidant attachment style with lower ERS. This study was also the first to provide evidence that ERS does not actually work to assuage the relationship insecurities of women high in attachment anxiety. This thesis contributed novel findings to the literature by demonstrating that attachment styles not only influence the effects of ERS on individual outcome variables, but also influence how an individual perceives and reacts to his or her partner's ERS. The results support the idea that there are both insecure and secure forms of reassurance seeking, and demonstrated that attachment styles play an important role in determining whether or not ERS will lead to negative interpersonal consequences. Ideally this research highlights the importance of considering both dyads when examining the dynamics of the ERS model and as agents of change in terms of relationship functioning.

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## Appendix A

### Letter of Information

Project Title: Western Couples Study

Investigators: Lyndsay E. Evraire, M.Sc., Ph.D Candidate; Dr. David J. A. Dozois

Our research focuses on the association between how individuals think about themselves and relationships and how they interact with their romantic partner.

The study involves two different components:

- 1) **In Lab Session:** Today, you and your partner will be asked to complete a series of questionnaires designed to measure your mood, interpersonal style, relationship, and beliefs and thoughts about self. For example, you will be asked to decide if certain phrases describe you or not. You will also be asked to engage in two verbal interactions with your partner for 8 minutes each.
- 2) **Daily Diary:** Starting the day after you complete and the in lab component of the study, you and your partner will be asked to complete a short online survey once per day for 14 days. A link to these surveys will be emailed to you every day, and you will be required to complete the surveys on the same day that you receive the email. Each survey will take approximately 5 to 10 minutes to complete. You will be asked to complete the surveys separately and independently from your partner, and to not share your answers with your partner.

You will receive written information explaining important aspects of the experiment at the end of the study, and will be invited to ask any questions about the research at this time.

Compensation: The exact amount of compensation that you will receive will depend on how many parts of the study you complete. The total compensation is broken down as follows:

- 1) In Lab Session: \$25/person (\$50/couple)
- 2) Daily Diary (14 days): \$3 per survey = Up to \$42/person (Up to \$84/couple); each member of the couple will also be entered into a draw to win one of four iPad 3s each day that he or she completes an online entry.

Confidentiality: All data for this study will be kept confidential and used for research purposes only. You and your partner will complete all of the questionnaires separately from one another, and your responses will remain private and confidential (they will not be shared with your partner). All of the material collected will be stored in a locked cabinet in a secure office and computer files containing study data will be stored on a password protected computer only the experimenter has access to. The names of participants will also be kept separate from the data. We will not share data with any other researchers without first

removing identifying markers. When we publish results of the study, your name will not be used.

Participation: Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time without loss of promised compensation. There are no known physical or psychological risks to you for participation in this study.

Contact Information: If you have any further questions about this study please contact Lyndsay Evraire by email or Dr. David Dozois by telephone or email.

If you have any questions about your rights as a research participant, you should contact the Director of the Office of Research Ethics.

You will be provided with a copy of this letter.

**Appendix B**  
**Consent Form**

Project Title: Western Couples Study

Investigators: Lyndsay E. Evraire, M.Sc., Ph.D Candidate; Dr. David J. A. Dozois

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Name of Participants (please print legibly):

Signature of Participants:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email address(s) to send Daily Diary Study Link (Part 2 of study):

Female Participant: \_\_\_\_\_

Male Participant: \_\_\_\_\_

Phone Number(s):

Female Participant: \_\_\_\_\_

Male Participant: \_\_\_\_\_

Name and Signature of Person Obtaining Informed Consent:

\_\_\_\_\_

Date:

\_\_\_\_\_

## Appendix C

### List of Resources

**Below are a variety of resources if you are interested in learning more about depression, how you can help yourself, or how you can arrange for professional help.**

**Websites for information:**

**[www.cognitivetherapy.com](http://www.cognitivetherapy.com)**

#### **Self-Help References:**

If you would like to look up some good self-help books on changing negative thinking, please see:

- ❖ Burns, D. D. (1980). *Feeling good*. New York: Penguin.
- ❖ Burns, D. D. (1989). *The feeling good handbook*. New York: Penguin.
- ❖ Greenberger, D., & Padesky, C. A. (1995). *Mind over mood: Change the way you feel by changing the way you think*. Guilford Press.
- ❖ Wright, J. H., & McCray, L. W. (2011). *Breaking free from depression: Pathways to wellness*. Guilford Press

### Available Services

There are several ways in which individuals can access psychological or psychiatric help both on campus and within the City of London, Ontario. If you are feeling depressed or anxious or feel that you could benefit from some individual assistance, the following information may be of use to you.

#### **The Student Development Centre at the University of Western Ontario**

- Individual appointments are available for students. To make an appointment you can call **661-3031**, or you can make an appointment in person at the Reception Desk, Room 4100 of the Western Student Services Building.
- Psychological Services Staff will make every effort to respond as quickly as possible when an individual student requires an emergency appointment.
- Psychological Services Staff can help you deal with a variety of issues including those related to Traumatic Events, Sexual or Physical Assault, Date rape, Interpersonal Violence, and Gay, Lesbian, Bisexual, or Transgendered situations.
- More information about the services offered at SDC can be found on the World Wide Web at <http://www.sdc.uwo.ca/>

#### **London Crisis Centres**

Psychological Services Staff will make every effort to respond as quickly as possible when an individual requires an emergency appointment. If you are in crisis when the office is closed please call one of the numbers listed below.

- **Mental Health Crisis Centre:** 519-433-2023
- **Sexual Assault Centre London Crisis Line:** 519-438-2272
  - Also 24 hour support line for sex trade workers: 519-438-2272

- **Women's Community House Help Line:** 519-642-3000
  - Out-of-Town calls: 1-800-265-1576
- **Zhaawanong (Atenlos) Shelter:** 519-432-2270
  - Outside of the London area code: 1-800-605-7477
  - 24 hour crisis line: 519-432-0122
- **St. Joseph's Sexual Assault and Domestic Violence Centre:** 519-646-6100 ext 64224

### **Student Health Services Counselling Centre**

- SHS is located in **Room 11, (Lower Level) University Community Centre, U.W.O.**  
Main telephone line: (519) 661-3030.
- The Student Health Services Counselling Centre provides individual counselling for students. The Counselling Centre can be reached at (519) **661-3771**.
- The Counselling Centre's Hours of Operation are as follows: Monday to Friday 8:30 a.m.- 4:30 p.m. (Please note the Counselling Centre will be closed when the university is closed.)

### **London & District Distress Centre**

- This is a 24-hour Distress Line: **(519) 667-6711**.
- Crisis Response Line: **(519) 433-2023**
- Access by e-mail at: **londondistresscentre@odyssey.on.ca**
- Each problem is handled in an atmosphere of confidentiality, anonymity & impartiality. You do not have to give your name nor does the service use call display; they will not try to identify the caller.

### **Addiction Services of Thames Valley**

- Alcohol & Drug Services of Thames Valley is located at **200 Queens Ave., Suite 260, London, Ontario N6A 1J3**
- A community service, funded by the Provincial Ministry of Health, Ontario Substance Abuse Bureau. There are currently no charges for clinical services, although fees may be charged for training or seminars.
- Service is available to any resident of Middlesex, Elgin or Oxford County. There are no admission restrictions.
- Provide early intervention to persons who are concerned about substance use and/or problem gambling.
- ADSTV is a gay, lesbian, bisexual, transsexual, and transgender positive environment
- Services include assessment of individuals who have an alcohol and/or drug related problem. Assessments are also available for problem gambling. Based on these assessments the ADS will develop treatment plans for clients and assist with referrals to provide outpatient counselling and aftercare.
- Hours of operation in London are as follows: Monday to Friday - 8:30 a.m. to 4:30 p.m.; Tuesdays- 8:30 a.m. to 9:00 p.m. (closed 12 until 1 p.m. each day and 4:30 to 5:30 p.m. on Tuesdays).
- Self-referrals are welcome, call **519-673-3242** (extension 222 for substance abuse services, extension 234 for problem gambling services).



**Emergencies After Hours**

- If you are in distress during an after-hours time, please go to the **nearest hospital emergency room**.
- **On Campus:** University Hospital: 519-663-3197, 339 Windemere Rd.
- **South London:** Victoria Hospital: 519-685-8141, 800 Commissioners Rd. East
- **North London:** St. Joseph's Hospital: 519-646-6100, 268 Grosvenor Rd.

**Referrals to Other Resources**

- Family physicians can provide you with counselling services, and can make referrals to other community resources as needed.
- Specialized services for emotional and interpersonal problems are available, however, a referral from a physician is often necessary.

We hope that this information is helpful to those who need it.

If you are suffering from distress, we encourage you to seek help from an appropriately qualified individual or service centre. Please contact a University or Community Agency that can help you, or to speak with a physician who can refer you to the appropriate resource.

## Appendix D

### Debriefing Sheet

Thank you for your participation in this study! You have made an important contribution to a developing body of knowledge in psychology. Now that you have completed the study, we can tell you more about the study you have just participated in.

The current study was designed to investigate the behaviour of excessive reassurance seeking (ERS) in the context of close relationships. ERS is defined as “the tendency to excessively and persistently seek assurances from others that one is lovable and worthy, regardless of whether such assurance has already been provided” (Joiner, Metalsky, Katz, & Beach, 1999, p.270). ERS is an important concept to study, given that previous research has shown that ERS plays an important role in both the deterioration of an individual’s social environment and the subsequent development of depressive symptoms. However, an important gap in the ERS literature concerns the developmental origins of this behaviour along with how relationship dynamics influence the effects of ERS.

In attachment theory, early interactions between an infant and his or her caregiver lead to the development of an internal working model or schema about the self, others, and the relationships between the two. Given that individuals have unique childhood experiences, they will also differ with regard to the meaning, sense of importance and perceived helpfulness they attribute to relationships (Marris, 1996). As such, an individual’s tendency to engage in ERS may originate from early experiences with inconsistent attachment figures. Furthermore, it may not be the behaviour of ERS per se, but rather characteristics of the individual (e.g., a fear of rejection) in combination with ERS that are associated with depression or negative interpersonal consequences (e.g., rejection). As such, one objective of the current study was to examine the associations among attachment styles, early maladaptive schemas and ERS. Along these lines, some of the questionnaires you completed assessed your attachment style along with your early maladaptive schemas. In line with past research, we predicted that individuals with an attachment style or schemas reflecting insecurity in relationships (e.g., fear of rejection) would report higher levels of ERS which would then go on to cause relationship problems which would subsequently lead to an increase in symptoms of depression.

Another objective of the proposed study was to examine how different qualities of a relationship (commitment, trust, love, passion, intimacy, and satisfaction) and partner characteristics (symptoms of depression and early core-beliefs) moderate the likelihood of negative consequences following ERS. No research to date has examined how the interpersonal context of ERS effects the associations between ERS, negative interpersonal consequences such as conflict or rejection and depression.

The results from this study will ideally lead to a more comprehensive understanding of the origins, daily dynamics and consequences of ERS. The information provided by this proposed research will ideally help prevent individuals who excessively seek reassurance from contributing to the deterioration of their close relationships by helping them and their close others maintain healthy and supportive relationships. In improving their social

networks, individuals who excessively seek reassurance will have the necessary encouragement and support from significant others to overcome life's daily stressors.

Thank-you again!

Lyndsay E. Evraire, M.Sc., Ph.D. Candidate

## Appendix E

### Ethics Approval from the Research Ethics Board at the University of Western Ontario

Please give a copy of both the protocol and the letter of approval to Daniella, Room 7416, SSC [ext. 84690] for the department's records. We are required to keep copies.

*Thank you.*

**Psychology** The University of Western Ontario  
Room 7418 Social Sciences Centre,  
London, ON, Canada N6A 5C1  
Telephone: (519) 661-2067 Fax: (519) 661-3961



#### Use of Human Subjects - Ethics Approval Notice

<b>Review Number</b>	12 09 12	<b>Approval Date</b>	12 09 19
<b>Principal Investigator</b>	David Dozois/Lyndsay Evraire	<b>End Date</b>	13 09 18
<b>Protocol Title</b>	Western couples study		
<b>Sponsor</b>	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- all adverse and unexpected experiences or events that are both serious and unexpected;
- new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2012-2013 PREB are: Mike Atkinson (Introductory Psychology Coordinator), Rick Goffin, Riley Hinson Albert Katz (Department Chair), Steve Lupker, and TBA (Graduate Student Representative)

CC: UWO Office of Research Ethics

*This is an official document. Please retain the original in your files*

LYNDSAY E. EVRAIRE, M.Sc., Ph.D. Candidate

Curriculum Vitae

**EDUCATION**

---

2010-2015

**Doctorate of Philosophy, Clinical Psychology**

The University of Western Ontario, London, Ontario, Canada

*Advisor:* David Dozois, Ph.D., C. Psych.

*Doctoral Dissertation:* The Contribution of Attachment Styles and Reassurance Seeking to Daily Mood and Relationship Quality in Romantic Couples

2008-2010

**Master of Science, Clinical Psychology**

The University of Western Ontario, London, Ontario, Canada

*Advisor:* David Dozois, Ph.D., C. Psych.

*Master's Thesis:* If It Be Love Indeed Tell Me How Much: Exploring the Origins and Dynamics of the Excessive Reassurance Seeking Model

2003-2007

**Bachelor of Science, Honours Psychology with Distinction**

Queen's University, Kingston, Ontario, Canada

*Advisor:* Uzma Rehman, Ph.D.

*Undergraduate Thesis:* Using Daily Diary Methodology to Examine Exposure to Marital Conflict: A Comparison of Depressed and Nondepressed Couples

## PUBLICATIONS AND PRESENTATIONS

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### *Peer-Reviewed Journal Articles*

- Dozois, D. J. A., Bieling, P. J., **Evraire, L. E.** et al. (2014). Changes in core beliefs (early maladaptive schemas) and self-representation in cognitive therapy and pharmacotherapy for depression. *International Journal of Cognitive Therapy*, 7, 217-234.
- Evraire, L. E.**, Ludmer, J. A., & Dozois, D. J. A. (2014). The influence of priming attachment styles on excessive reassurance seeking and negative feedback seeking. *Journal of Social and Clinical Psychology*, 33, 295-318.
- Evraire, L. E.**, & Dozois, D. J. A. (2014). If it be love indeed tell me how much: Early core beliefs associated with excessive reassurance seeking in depression. *Canadian Journal of Behavioural Science*, 46, 1-8.
- Evraire, L. E.**, & Dozois, D. J. A. (2011). An integrative model of excessive reassurance seeking and negative feedback seeking in the development and maintenance of depression. *Clinical Psychology Review*, 31, 1291-1303.
- Sabbagh, M. A., Bowman, L. C., **Evraire, L. E.**, & Ito, J. M. B. (2009). Neurodevelopmental correlates of theory of mind in preschool children. *Child Development*, 80, 1147-1162.

### *Invited Book Chapters*

- Dozois, D. J. A., **Evraire, L. E.** (In Press). Theoretical perspectives on abnormal behaviour. In D. J. A. Dozois (Ed.). *Abnormal psychology: Perspectives* (DSM-5 ed.). Toronto, Ontario: Pearson.
- Evraire, L. E.**, & Dozois, D. J. A., & Hayden, E. P. (2014). Assessment of Cognitive Vulnerability to Psychopathology: Issues in Theory and Practice. In G. P. Brown & D. A. Clark (Eds.). *Assessment in cognitive therapy* (pp. 94-120). New York: The Guilford Press.
- Dozois, D. J. A., **Evraire, L. E.** (2013). Theoretical perspectives on abnormal behaviour. In D. J. A. Dozois (Ed.). *Abnormal psychology: Perspectives* (5<sup>th</sup> ed., pp. 23-47). Toronto, Ontario: Pearson.

### *Other Publication*

- Evraire, L. E.**, & Kryski, K. R. (Winter, 2013 Issue). Advocacy through action: A clinical psychology graduate student initiative. *Psynopsis Magazine-Canadian Psychological Association*, p. 13.

### **Conference Proceedings**

- Evraire, L. E., & Dozois, D. J. A.** (2014, July). *A Daily Diary Analysis of the Cognitive Origins and Dynamics of Excessive Reassurance Seeking in Depression*. Presenter for the International Congress of Applied Psychology: From Crisis to Sustainable Well-Being, Paris, France.
- Evraire, L. E., Rehman, U. S., & Dozois, D. J. A.** (2014, June). An examination of the influence of relationship satisfaction and depression on conflict frequency in romantic couples. Presenter at the Society for Interpersonal Theory and Research, New Haven, Connecticut.
- Evraire, L. E., & Dozois, D. J. A.** (2013, September). *The role of early core beliefs and excessive reassurance seeking in the development and maintenance of depression*. Presented by Dr. Dozois at the European Association for Behavioural and Cognitive Therapies, Marrakech, Morocco.
- Evraire, L. E., McDermott, R., & Dozois, D. J. A.** (2013, June). *Exploring the relationship between excessive reassurance seeking and stress reactivity*. Poster presented at the Canadian Psychological Association Conference, Quebec City, Quebec.
- McDermott, R., Evraire, L. E., & Dozois, D. J. A.** (2013, June). *Attentional allocation in insecure attachment: The importance of exposure durations*. Poster presented at the Canadian Psychological Association Conference, Quebec City, Quebec.
- Ludmer, J. A., Evraire, L. E., & Dozois, D. J. A.** (2013, June). *The influence of attachment style on excessive reassurance seeking and negative feedback seeking*. Poster presented at the Canadian Psychological Association Conference, Quebec City, Quebec.
- Evraire, L. E., & Dozois, D. J. A.** (2012, July). *Exploring the cognitive origins of excessive reassurance seeking in depression*. Presenter for the International Congress of Psychology: Psychology Serving Humanity, Cape Town, South Africa.
- Lowe, E. M., Evraire, L. E., Dozois, D. J. A.** (2012, July). *Intolerance of uncertainty and excessive reassurance seeking in depression*. Poster presented at the International Congress of Psychology: Psychology Serving Humanity, Cape Town, South Africa.
- Evraire, L. E., & Dozois, D. J. A.** (2012, June). *Examining the relationships between adult attachment styles, early maladaptive schemas and excessive reassurance seeking*. Symposium presenter for the Canadian Psychological Association Conference, Halifax, Nova Scotia.
- Lowe, E. M., Evraire, L. E., & Dozois, D. J. A.** (2012, June). *Excessive reassurance seeking and intolerance of uncertainty as related to depression and worry*. Symposium presented at the Canadian Psychological Association Conference, Halifax, Nova Scotia.

McDermott, R., **Evraire, L. E.**, & Dozois, D. J. A. (2012, June). *Exploring the relationship between attentional bias and excessive reassurance seeking*. Symposium presented at the Canadian Psychological Association Conference, Halifax, Nova Scotia.

Sussman, K. T., **Evraire, L. E.**, & Dozois, D. J. A. (2012, June). *Biased interpretation of social threat and excessive reassurance seeking*. Symposium presented at the Canadian Psychological Association Conference, Halifax, Nova Scotia.

**Evraire, L. E.**, & Dozois, D. J. A. (2010, November). *If it be love indeed tell me how much: Exploring the origins and dynamics of excessive reassurance seeking*. Poster presented at the 44<sup>th</sup> Annual Association for Behavioral and Cognitive Therapies Conference, San Francisco, California.

MacGregor, K. E., Fabrigar, L. R., & **Evraire, L. E.** (2008, February). *The role of extraversion in self-enhancement strategy effectiveness*. Poster presented at the 9th annual Society for Personality and Social Psychology Conference, Albuquerque, New Mexico.

**Evraire, L. E.**, & Rehman, U. S. (2007, November). *Using daily diary methodology to examine exposure to marital conflict: A comparison of depressed and nondepressed couples*. Poster presented at the 41<sup>st</sup> Annual Association for Behavioral and Cognitive Therapies Conference, Philadelphia, Pennsylvania.

**Evraire, L. E.**, & Rehman, U. S. (2007, April). *Using daily diary methodology to examine exposure to marital conflict: A comparison of depressed and nondepressed couples*. Symposium presenter at the Psychology Undergraduate Thesis Conference, Toronto, Ontario.

### ***Other Professional Presentations***

**Evraire, L. E.** (2014, April). *Psychology and ethics from a clinical and research perspective*. Presented at All Saints Catholic High School to Grade 11 and 12 students as part of their ethics and religion classes, Ottawa, Ontario.

**Evraire, L. E.** (2012/2013, February). *Relationships: Why we behave the way we do?* Community lecture presented at the London Public Library as a member of Advocacy through Action, London, Ontario.

**Evraire, L. E.** (2012, December). *The importance of having a mental health toolkit*. Community workshop presented at the London Public Library in collaboration with Connect for Mental Health, London, Ontario.

**Evraire, L. E.** (2012, September). *Stress management workshop*. Presented at Sir Frederick Banting Secondary School to Grade 11 students as a part of their healthcare class, London, Ontario.



**Evraire, L. E.** (2012, February). *Building your mental health tool box*. Community lecture presented at the London Public Library as a member of Advocacy through Action, London, Ontario.

**Evraire, L. E., & Edwards, K.** (2011, Summer). *Girl power workshop*. Community workshop presented as part of Big Brothers, Big Sisters of London, Ontario.

**Evraire, L. E.** (2011, May). *Building your mental health tool box*. Community lecture presented at an employee meeting at Home Hardware in London, Ontario.

**Evraire, L. E., Edwards, K., & Schraeder, K.** (2011, May). *Why YOU should consider becoming a doctor in clinical psychology*. Workshop presented to high school students as part of Discovery Days in Health Sciences at the University of Western Ontario, London, Ontario.

**Evraire, L. E., & Edwards, K.** (2011, February). *The pursuit of happiness*. Community lecture presented at the London Public Library as a member of Advocacy through Action, London, Ontario.

**Evraire, L. E.** (2010, December). *If it be love indeed tell me how much: An exploration of the origins and dynamics of excessive reassurance seeking*. Talk presented at the Clinical Area Research Brownbag, Department of Psychology, The University of Western Ontario, London, Ontario

**Evraire, L. E., & Edwards, K.** (2010, February). *Building youth self-esteem: An interactive seminar*. Community lecture presented at the London Public Library as a member of Advocacy through Action, London, Ontario.

**Evraire, L. E., & Edwards, K.** (2009, February). *Girl power: Ways of fostering self-esteem in young girls*. Community lecture presented at the London Public Library as a member of Advocacy through Action, London, Ontario.

#### **AWARDS AND SCHOLARSHIPS**

<b>Date</b>	<b>Award</b>	<b>Value</b>
2013-2014	Western Graduate Research Scholarship	\$10,900
2010-2013	Joseph-Armand Bombardier Canadian Graduate Scholarship – Doctoral (SSHRC-CGS)	\$105,000
2010-2011	Ontario Graduate Scholarship (OGS) – Doctoral (declined)	\$15,000
2009-2010	Ontario Graduate Scholarship (OGS) – Master’s	\$15,000
2008-2009	Joseph-Armand Bombardier Canadian Graduate Scholarship – Master’s (SSHRC-CGS)	\$17,500
2008-2009	Western Graduate Research Scholarship	\$8,000
2007-2008	Ontario Graduate Scholarship (OGS) – Master’s (declined)	\$15,000
2007	Dean’s Honour List with Distinction – Queen’s University (Top 3% of program)	Non-monetary

2006	National Science and Engineering Research Council (NSERC) – Summer Scholarship	\$5,600
2006	Queen’s Appeal Undergraduate Scholarship (Top 3% of program)	\$1,200
2005-2007	Dean’s Scholar, Queen’s University	Non-monetary
2003	Volunteer Association Scholarship Award- Children’s Hospital of Eastern Ontario (CHEO)	\$1,000
2003	Alison Craig Memorial Award – Children’s Hospital of Eastern Ontario (CHEO)	\$500
2003	Lieutenant Governor General Medal for Volunteerism	Non-monetary
2003	Canadian Millennium Excellence Award	\$4,000
2003	Entrance Excellence Merit Award – Queen’s University	Non-monetary

## CLINICALLY RELEVANT EMPLOYMENT AND RESEARCH EXPERIENCE

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### **Pre-Doctoral Internship In Clinical Psychology, The Children’s Hospital of Eastern Ontario (2014-August 2015)**

- Internship accredited by the Canadian Psychological Association
- Major rotations in Outpatient Mental Health Team (Mood and Anxiety Clinic and ADHD and Disruptive Behaviour Disorder Team); Health Psychology; and Neuropsychology. Minor rotations in family therapy, long-term individual therapy and with the Canadian Psychological Association
- Conducted comprehensive psycho-educational and neuropsychological assessments and provided therapy to children, adolescents and their families using a number of therapeutic approaches (DBT; solution focused family therapy; CBT; client-centered

### **Therapist, Lewis J. Leikin Psychology, Professional Corporation (Fall 2013-Aug 2014)**

- Supervisor: Lewis Leikin, Ph.D., C. Psych.
- Complete intake assessments to determine suitability and goals for psychotherapy
- Provide ongoing therapy to children, adolescents, and their family

### **Diagnostician, The University of Western Ontario, London, Ontario (2013-2014)**

- Supervisor: David Dozois, Ph.D., C. Psych.
- Administered and scored 60 Structured Clinical Interviews (SCID) for DSM-IV to students at risk for anxiety and depression

### **Diagnostician, The University of Western Ontario, London, Ontario (2011-2012)**

- Supervisor: Elizabeth Hayden, Ph.D.
- Administered 130 Structured Clinical Interviews for DSM-IV Axis I (SCID-I) and 105 UCLA Life Stress Interviews to a community sample of parents of 5-year-old children for a research study
- Consulted with Dr. Elizabeth Hayden, primary investigator, for complex cases and differential diagnosis

**Girl Power Camp Facilitator-Kingston Military Family Resource Centre (Summer, 2008)**

- Supervisor: Ms. Stacey de Savoye, M.S.W
- Designed a week long summer camp (Girl Power) for girls from military families that targeted topics such as self-esteem, body image, bullying, healthy eating, the importance of physical activity, healthy relationships, self-defence, creativity and intelligence
- Led two (week long) Girl Power groups with adolescents (aged 13-15), and two groups with children (aged 8-12)

**Research Assistant, Queen's Mental Health Team-Youth in Transition Clinic at Ongwanda (2007-2008)**

- Supervisor: Jessica Jones, Ph.D., C. Psych.
- Reviewed client files and created a clinical database of clients at the Dual Diagnosis Clinic at Ongwanada, Kingston, Ontario
- Mailed out, scored and analyzed measures (demographics; CBCL; ABAS)
- Participated in a concise course on dual diagnosis and received a certificate

**Research Assistant and Lab Manager, Social Influence Lab, Queen's University (2004-2008)**

- Supervisor: Leandre Fabrigar, Ph.D.
- Head research assistant for a project examining the role of extraversion and introversion on the use of various self-enhancement strategies
- Organized and managed members of the lab along with their various research projects
- Assisted with project development, preparation, data collection and analyses
- Organized and developed the psych 1000 mass subject pool data collection initiative

**Research Assistant, Canadian Armed Forces, Royal Military College (2007)**

- Supervisor: Leandre Fabrigar, Ph.D.
- Transcribed audio recordings of military leaders from England, Canada, Germany, and the United States discussing the topic of propaganda use by the military

**Research Assistant, Queen's University, Kingston, Ontario (2006-2007)**

- Supervisor: Uzma Rehman, Ph.D.
- Examined the role of depression in the generation of stress in romantic couples
- Conducted a research procedure with married community couples, with wives who had a history of, or current depression, consisting of semi-structured interviews, self-report questionnaires, computer tasks and dyadic interactions; scored measures and inputted data

**National Science and Engineering Research Council Summer Project, Queen's University, Kingston, Ontario (2006)**

- Supervisor: Mark A. Sabbagh, Ph.D.
- Examined the neurodevelopmental correlates of theory of mind in preschool children
- Conducted over 200 lab visits with children aged 3 to 5-years-old and their parents; conducted EEG measures with each of the children; scored and coded video taped measures of executive functioning and theory of mind

## TEACHING AND SUPERVISION EXPERIENCE

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### *Teaching Assistantships:*

- Exceptional Children: Developmental Disorders (2011-2014)
- Exceptional Children: Behavioural Disorders (2011)
- Developmental Psychology (2010)
- Research Methods in Psychology – Lab Instructor (2009-2010)
- Research Methods in Psychology- Exam Marker (2008-2009)

### *Guest Lectures:*

*Building your Mental Health Toolbox*-Presented to the Clinical Psychology Course at the University of Western Ontario-King's College (Nov, 2011)

*Cognitive Development*-Presented to the Developmental Psychology Course at the University of Western Ontario-King's College (Oct, 2010)

### *Supervision Experience:*

#### **Honours Thesis Research Advisor, The University of Western Ontario (2012-2013)**

- Project title: The influence of attachment style on excessive reassurance seeking and negative feedback seeking

#### **Honours Thesis Research Advisor, The University of Western Ontario (2011-2012)**

- Project title: Biased interpretation of social threat and excessive reassurance seeking

#### **Honours Thesis Research Advisor, The University of Western Ontario (2009-2010)**

- Project title: Excessive reassurance seeking and intolerance of uncertainty as related to depression and worry

## SERVICE ACTIVITIES

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### **Advocacy through Action (2008-2013)**

- Advocacy through Action is a graduate student run group that strives to bring psychology to the community of London, Ontario, through an annual series of public talks ("Finding Your Way") on various topics related to mental health and well-being. Along with being an active member of this group throughout my graduate studies, I have also held the following leadership positions:
  - **Co-President (2012-2013):** responsible for liaising with the library regarding scheduling of the series; monitoring and overseeing the duties of the various committees; coordinating members and running meetings; disseminating the success of our group through articles and conference publications

- **Co-chair - Pamphlets Committee** (2009-2011): in charge of collecting brochures and resources from local mental health agencies to distribute to individuals attending the library talks
- Advocacy Through Action has received the following awards:
  - 2009 Finalist, Pillar Community Innovation Award, *Pillar Nonprofit Network*
  - 2009 Outstanding Contribution by a Psychology Student (Group), *London Regional Psychological Association (LRPA)*
  - 2008 Public Education Award. *Ontario Psychological Association (OPA)*

#### **Clinical Student Advisory Committee** (2010-2014)

- Responsibilities include organizing an annual series of seminars and workshops for clinical psychology graduate students, faculty, and adjuncts; collecting/preparing documents for CPA accreditation; liaising between faculty and students; and welcoming and orienting new students to the clinical program.

#### **Ad Hoc Reviewer** (November, 2011)

- For the *Journal of Consulting and Clinical Psychology*

#### **Professional Affiliations:**

2010-Present	Canadian Psychological Association (CPA; student member)
2009-2013	London Regional Psychological Association (LRPA; student member)
2007-2008; 2010-2011	Association for Behavioral and Cognitive Therapies (ABCT; student member)

#### **COMMUNITY SERVICE**

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#### **Big Brothers, Big Sisters of London and Area – Big Sister** (2009-2014)

- Big sister to a 16-year old teenager from London, Ontario (with a neuro-developmental disorder and ADHD). We have been matched since she was 13 years old and until recently, we met every 2 weeks (for approximately 2-3 hours). Currently we meet up once a month and have regular contact by phone

#### **Cross-Cultural Solutions – International Volunteer** (Summer 2005, 2011)

- Volunteered for 3 weeks at a primary school (taught English and psychological concepts such as self-esteem, healthy relationships etc.) in one of the poorest townships (Khayelitsha) in Cape Town, South Africa, while living in the local community, learning the local languages, history and culture
- Volunteered for 3 weeks at a children's orphanage in Tanzania, Africa while living in the local community, learning the local language and culture

**Queen's Kaleidoscope Big Buddy Program – Coordinator and Volunteer (2004-2008)**

- Interviewed and matched over 200 Queen's University students (big buddies) with children/adolescents (little buddies) from local elementary and high schools in need of a supportive role model for a variety of different issues (e.g., learning difficulties, mood, social difficulties)
- Organized and managed group events
- Also served as a big buddy and school coordinator

**Queen's Dance Club - Ballet Instructor (2004-2008)**

- Developed lessons and taught weekly classes to 40 students; classes taught included intermediate ballet, pointe, variations and advanced ballet
- Choreographed class numbers that were performed at biannual recitals
- Taught creative movement classes to 3 to 5-year-olds at the local YMCA, including two children suffering from Down Syndrome

**Camp Trillium – Volunteer (Summer 2005)**

- Organized and participated in games and activities with young children suffering from cancer and their families
- Provided relief for parents by caring for their children throughout the camp

**Children's Hospital of Eastern Ontario (CHEO) – Child Life Volunteer (2001-2005)**

- Organized crafts and games for children from infancy through late adolescence. Also, provided emotional support to patients, parents, and siblings
- This volunteer experience took place 3-4 days per week each summer and on Saturdays during the school year
- Accrued over 500 volunteer hours