

INDIVIDUAL DIFFERENCES AND LEADER-SUBORDINATE
RELATIONSHIPS

INDIVIDUAL DIFFERENCES AND LEADER-SUBORDINATE
RELATIONSHIPS:
EXAMINING THE RELATIONS BETWEEN INDIVIDUAL ATTACHMENT,
EMOTION REGULATION, LEADER-MEMBER EXCHANGE, AND
EMPLOYEE BEHAVIOUR

By

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ABSTRACT

There is scant research into the influence of leader or follower personality on the development of leader-member exchange quality (LMX; Dienesch & Liden, 1986; Gerstner & Day, 1997; Liden, Sparrowe, & Wayne, 1997, Harris, Harris, & Eplion, 2007). Furthermore, where such research has been undertaken, it has focused mostly on broad-trait based personality factors (such as the Big-Five; Phillips & Bedeian, 1994; Erdogan, Liden, & Wayne, 2006). There are strong theoretical grounds for expecting that more narrow and specific relationship-based personality assessments will provide superior prediction of LMX quality, and richer insights into the LMX development process. The current study draws on attachment theory (Bowlby, 1969/1982, 1973, 1980; Mikulincer & Shaver, 2007) to examine how individuals' dispositions relate to their LMX quality and two relationship-based aspects of work performance (organizational citizenship behaviour [OCB] and counterproductive work behaviour [CWB]). The moderating influence of emotion regulation and affectivity on these relationships was also explored. Data were collected from managers, front-line staff, and their co-workers at two Canadian hospitals. Emotion regulation (Gross, 1998a; Gross & John, 2003) was found to moderate the association between attachment and LMX. Additionally, in some instances leaders' trait affectivity interacted with emotion regulation to influence the impact of leader attachment on LMX quality. Theoretical and applied implications of these findings are discussed.

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CHAPTER 1: INTRODUCTION AND THEORETICAL FOUNDATIONS

Effective leaders build strong one-to-one relationships with their subordinates. High quality leader-subordinate relationships accrue benefits to each party, their units and their organizations; as noted in much of the leader-member-exchange (LMX) literature (Liden & Graen, 1980; Graen & Uhl-Bien, 1995; Gerstner & Day, 1997; Liden, Sparrowe, & Wayne, 1997; Schriesheim, Castro, & Cogliser, 1999). However, we know little about the factors that predict high quality LMX, particularly with respect to dispositional attributes of dyad members (Bauer & Green, 1996; Gerstner & Day, 1997; Liden et al., 1997). In order to realize the many benefits of high quality LMX relationships we must identify the factors facilitating them.

While there are strong theoretical grounds for expecting leader and subordinate personality to be associated with LMX quality (Dienesch & Liden, 1986), relatively few studies report these relationships. Two studies reported positive associations of LMX with extraversion ($r = .26$, Phillips & Bedeian, 1994; $r = .16$, Bauer, Erdogan, Liden & Wayne, 2006); and Day and Crain (2002) reported that negative affectivity moderated the relation between ability and LMX. I propose that more relationship-specific personality traits have stronger associations with LMX quality than do broader, less relationship-specific traits. Accordingly, I draw from the developmental and social psychology literatures on inter-personal relationships, including relationship formation, development, and

maintenance to suggest that attachment style of both leader and follower (Bowlby, 1969/1982, 1973, 1980) influences LMX quality.

Attachment theory posits that individuals are born with an innate tendency to seek proximity to others (Bowlby, 1969/1982, 1973, 1980). Based on their early life experiences, people develop degrees of comfort in forming relationships, and their patterns of relating remain relatively stable throughout adulthood (Mikulincer & Shaver, 2005). Relationship patterns associated with attachment style are determined by the degree of attachment anxiety (a negative view of the self) and attachment avoidance (a negative view of others) (Brennan, Clark, & Shaver, 1998). Both are associated positively with difficulties in work relationships and negatively with job performance (Hazan & Shaver, 1990; Hardy & Barkham, 1994). A negative view of self and others is likely to impair an individual's ability to develop affection, loyalty, and respect for their leaders, thereby limiting LMX quality (Liden et al., 1997; Sparrowe & Liden, 1997). A recent validation study of a measure of attachment suitable for use in organizational research provides evidence of these two distinct attachment dimensions (Richards & Schat, 2007).

In addition to investigating the degree to which attachment styles relate to the development of LMX quality, I explore how they relate to that aspect of the performance domain where interpersonal relationships are most salient. Specifically, I examine both direct and indirect (through LMX quality) associations between attachment style and two socially laden performance facets,

counterproductive work behaviour (CWB) and organizational citizenship behaviour (OCB). Both OCB and CWB include behaviours directed toward individuals and the organization (Williams & Anderson, 1991; Bennett & Robinson, 2000). The interpersonal nature of attachment (in comparison to a broader, less interpersonally oriented trait such as openness to experience) is uniquely suited to understanding how individual dispositions influence relationship-focused work behaviours.

Finally, I assess whether the regulation of negative emotion and affectivity moderates attachment-LMX associations. Emotion regulation refers to the *process* by which individuals attempt to influence the emotions they experience, *when* they experience them, and *how* they express them behaviourally (Gross, 1998a). Emotion regulation involves using antecedent-focussed and response-focused strategies. The former are actions taken before the emotional response has been activated (e.g. reappraisal) that alter the subsequent emotional experience. Response-focussed strategies occur later in the process and change the behavioural expression of the emotion (e.g., suppression) (Gross, 1998a, 1998b; Gross & John, 2003). There are strong theoretical reasons to expect strategies of regulating emotions to interact with attachment style (of leader and follower) in their influence on LMX quality and interpersonally focused work behaviours (e.g., OCB and CWB). Additionally, trait positive and negative affectivity (which indicate the general extent of either positive or negative mood; Watson, Clark, & Tellegen, 1988) were included in some of the analyses in order to further

understand the relationship that develops between leaders and subordinates.

Figure 1 provides an overview of the proposed model.

1.1 Construct Definition and Theoretical Foundations.

Positive relationships between leaders and subordinates can be of tremendous benefit to organizations (e.g., lower turnover), leaders (e.g., higher performance ratings), and employees (e.g., higher job satisfaction, lower role conflict) (Liden & Graen, 1980; Graen & Uhl-Bien, 1995; Gerstner & Day, 1997; Liden et al., 1997; Schriesheim, Castro, & Cogliser, 1999). However, studies of the association between personality traits and leader-subordinate relationships have been sparse, and the magnitude of these associations, where established, has been small. Negative affectivity appears to moderate the association between subordinate ability and their LMX quality, such that it is weaker for subordinates high in negative affectivity (Day & Crain, 1992). Subordinate ratings of LMX quality show only a modest positive association ($r = .16$ to $.26$) with subordinate's extraversion (Phillips & Bedeian, 1994; Bauer et al., 2006). Deluga (1998) reported statistically nonsignificant associations between supervisor or subordinate conscientiousness and ratings of LMX quality by either party. Perhaps these weak personality-LMX associations are due, in part, to the breadth of the personality traits studied.

In contrast, more specific aspects of personality have been found to associate with LMX. Specifically, subordinate internal locus of control and the

need for power relate positively to subordinate ratings of LMX (Harris, Harris, & Eplion, 2007). Internal locus of control (which indicates the extent to which an individual believes that personal life outcomes are mostly within his or her control) and the need for power (which reflects initiative or ambition) likely affect the nature of the social interactions between supervisors and their subordinates because they entail a sense of personal control and mastery. These findings suggest that broad personality traits may not explain the development of LMX very well, but narrower, relationship-specific traits may have greater influence on the interpersonal dynamics between subordinates and their leaders. Accordingly, theories and constructs drawn from clinical and social psychology are likely to advance understanding of the antecedents to LMX development.

A chief objective of the current study is to uncover the interpersonal dynamics affecting workplace leader-subordinate relationships. More specifically, this study is designed to determine how one's disposition to develop personal relationships more generally influences the ability of a leader and subordinate to develop quality relationships at work. Such a determination is likely to have distinct implications for theory and practice.

1.1.1 Leader-Member Exchange (LMX)

Grounded in role theory (Merton, 1968), social exchange theory (Blau, 1964), and attribution theory (Heider, 1958; Kelley, 1967), the theoretical foundation of (LMX) focuses on the dyadic exchange between a leader and a subordinate, as well as the process through which the relationship develops. Graen

and Uhl-Bien (1995) note that “LMX clearly incorporates an operationalization of a relation-based approach to leadership” (p. 109). Central to this idea is that higher quality exchanges occur in mature leader-subordinate relationships, providing benefits to both dyad partners (Graen & Uhl-Bien, 1995). High quality exchanges are comprised of high levels of mutual trust, respect, and felt obligation (Graen & Uhl-Bien, 1995); and at the core of these facets is the ability to relate positively to others.

The degree to which the leader and subordinate are capable of developing this level of maturity in a relationship is likely to determine the overall quality of the social exchange. Dyadic relationships develop at different rates and reach different end-points. Liden and Graen (1980) found that 90 percent of supervisors formed relationships of different quality with their subordinates; that due to time constraints, leaders generally cannot afford to develop high quality relationships with all subordinates. It was initially thought that the differences in LMX created two different groups of subordinates; namely the “In Group” (those with high quality LMX) and the “Out Group” (those with low quality LMX) (Graen & Cashman, 1975). However, LMX theory has evolved and LMX quality is now believed to vary along a continuum (Graen & Uhl-Bien, 1995; Graen, 2003). Leaders share a more personal “social” exchange with subordinates with whom they have entered into a high LMX relationship; in contrast, they are likely to rely more on an economic exchange with subordinates with whom they are

experiencing low quality LMX – with such exchanges governed by formal authority, policies, and rules (Dienesch & Liden, 1986; Sparrowe & Liden, 1997).

LMX theory suggests a process model (Dienesch & Liden, 1986) wherein the initial interaction between leader and subordinate affects both the nature of the interpersonal exchange and the amount of work the leader chooses to delegate to that subordinate. The importance of this initial interaction suggests that leader and subordinate characteristics are likely to have a fundamental influence on relationship formation and development. Typically, leader-subordinate relationships begin with the leader delegating a task to his/her subordinate. Dienesch and Liden (1986) argue that such delegation is governed by an attribution process entailing three elements: 1) subordinate behaviour and attributions; 2) leader attributions; and 3) leader responses. Under the influence of contextual factors, these three elements and their interaction will affect the nature of the exchange (Dienesch & Liden, 1986).

The facets underlying LMX development include the perceived contribution of the leader and subordinate, mutual loyalty and affect (Dienesch & Liden, 1986) and professional respect (Liden & Maslyn, 1998). Work outcomes appear to have differential associations with LMX quality (e.g., satisfaction with supervision $r = .71$, organizational commitment $r = .31$, objective performance $r = .11$; see Gerstner & Day, 1997), likely due to the distinct valuation of the various currencies of exchange (Liden & Maslyn, 1998). For example, affect is particularly likely to influence (and be influenced by) the show of consideration

(support) by one dyad partner to the other. Affect impacts the quality of the exchange through influencing the degree to which leader and subordinate enjoy spending time with each other (Liden & Maslyn, 1998; Maslyn & Uhl-Bien, 2001).

LMX incorporates a social exchange perspective (Liden et al., 1997; Sparrowe & Liden, 1997) involving a series of interdependent interactions comprising the exchange of tangible and intangible activities (Blau, 1964) or material and non-material currencies (Cropanzano & Mitchell, 2005). These exchanges result in mutual felt obligation. Social exchanges can be differentiated from other forms of exchange in that they are voluntary actions expected to bring about returns from others (Blau, 1964). Within the leader-subordinate dyad, these felt obligations facilitate relationship development, including the creation and acceptance of each member's role within the relationship. Leader behaviours and subordinate actions comprise the social exchange currency (Blau, 1964). The nature of the exchange is determined by the degree to which fair and equitable treatment is provided by the other member of the dyad (Wayne, Shore, & Liden, 1997), which underscores the *interpersonal* and *contextual* factors affecting the nature of the dyadic exchange (Sparrowe & Liden, 1997).

Receiving preferred outcomes characterizes higher levels of social exchange. Liden and Graen (1980) found that the quality of leader-subordinate exchanges related positively to subordinates' performance and negatively to turnover. In Gerstner and Day's (1997) meta-analysis of the LMX literature, LMX

quality positively associated with subordinates' performance, satisfaction with supervision, overall satisfaction, organizational commitment, and role clarity; and negatively related to subordinates' role conflict and turnover intentions.

1.1.2 Attachment Theory

1.1.2.1 Background and History

A key premise of the current study is that an attachment style which involves a negative view of the self or of others (Brennan et al., 1998) will adversely affect one's working relationship with one's supervisor. Attachment theory is founded on the work of John Bowlby (1969/1982, 1973, 1980), and posits that individuals are born with an innate tendency to seek proximity to others in times of need. Specifically, attachment behaviours are innate behaviours that are intended to attract and maintain proximity to attachment figures (supportive others) and thereby protect oneself from psychological or physical threats (Mikulincer & Shaver, 2005). Bowlby (1973) proposed that patterns of attachment arise from early experiences with supportive others and the extent to which the attachment figures are available and responsive. Attachment patterns tend to remain relatively fixed over an individual's life and are activated during periods of distress or fear. Individuals use these strategies to regulate their affect when they experience adversity (Ainsworth, Blehar, Waters, & Wall, 1978; Mikulincer & Shaver, 2005).

The conceptualization of adult attachment has evolved from a categorical typology (see Hazan & Shaver, 1987; Bartholomew & Horowitz, 1991; and Griffin & Bartholomew, 1994) to a dimensional conceptualization consisting of attachment anxiety and attachment avoidance (see Brennan et al., 1998; Ross, McKim, & DiTommaso, 2006). Attachment anxiety is consistent with a negative view of self, while attachment avoidance involves a negative view of others (Brennan et al., 1998). The combination of scores on these two dimensions determines an attachment style that mirrors earlier conceptualizations of attachment types, namely: secure, preoccupied, dismissing avoidant, and fearful avoidant (Griffin & Bartholomew, 1994). Figure 2 provides an overview of associations between various conceptualizations of attachment.

Attachment security (low levels of attachment anxiety or avoidance) relates to optimism, positive views of the self and others, and confidence that help will be available in times of distress, thereby enabling optimal functioning (Mikulincer, 1995; Mikulincer & Florian, 1998; Mikulincer, Shaver & Pereg, 2003). With attachment anxiety, individuals possess a negative view of self, are prone to develop an overdependence on relationships (Mikulincer & Shaver, 2005), and tend to be hyper-vigilant to social and emotional cues from others (Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006). Individuals with high anxiety also experience distress associated with separation from attachment figures and fear that they will be rejected or abandoned (Bowlby, 1973).

Attachment avoidance entails viewing others as unavailable or untrustworthy in times of need (Bowlby, 1973; Mikulincer & Shaver, 2005), which results in the “deactivation of proximity seeking, inhibition of the quest for support, and active attempts to handle distress alone” (Mikulincer et al., 2003, p.85). Deactivation of the attachment systems is undertaken in an effort to avoid additional frustration over the lack of availability of a trustworthy attachment figure (Cassidy & Kobak, 1988). This results in the denial and suppression of attachment needs, the dismissal of threat-related signals, the denial of the importance of relationships, and the avoidance of emotional involvement or intimacy (Mikulincer & Shaver, 2005).

1.1.2.2 Attachment Theory and Organizational Research

A few studies in organizational contexts have considered the role of attachment theory. In an early investigation of attachment in the workplace, Hazan and Shaver (1990) found that securely attached individuals had positive views of themselves at work, were more confident that others evaluated them favourably, and had higher levels of overall work satisfaction (see also Krausz, Bizman, & Braslavsky, 2001). On the other hand, they found that anxious individuals expected to be undervalued by co-workers, and avoidant individuals gave themselves lower self-ratings in terms of job performance and expected they would receive low performance ratings from co-workers.

In another study, Hardy and Barkham (1994) found that among individuals treated for work-related stress, attachment anxiety was associated with concerns

about relationships at work and job performance, and individuals with attachment avoidance reported more conflict with co-workers, concerns about hours of work and difficulties with relationships outside of work. Joplin, Nelson, and Quick (1999) found that anxiously attached individuals were more reliant on support from co-workers and family, while avoidant individuals were less likely to use these supports. They also reported that secure attachment was negatively related to social dysfunction and positively related to physical and psychological well-being. More recently, Mikulincer and Shaver (2007) found that attachment anxious and attachment avoidant individuals exhibited *lower* levels of organizational commitment and organizationally beneficial spontaneous behaviours than did securely attached individuals. Attachment avoidant individuals also reported higher levels of turnover intentions than securely attached individuals.

Attachment has also been used to understand leadership behaviour and leader-follower relationships. Keller and Cacioppe (2001) theorized that attachment style influences the relationship between the leader and the follower in a manner similar to parent-child relationships. They propose that both the leader's and the follower's attachment styles interact to create specific dynamics that may be harmonious or conflictual. They suggest that an avoidant leader and avoidant follower may not openly address issues that are creating problems and that anxious leaders may also avoid addressing sensitive issues out of fear of a negative reaction from subordinates. Similarly, Quick, Nelson, and Quick (1987)

suggest that attachment insecurity can curtail the development of social supports, which results in poor stress management and adversely impacting both leaders and their followers.

Empirical evidence has supported the relevance of attachment theory to the study of leadership. Popper, Amit, Gal, Mishkal-Sinai, and Lisak (2004) found that leaders were more likely to possess secure attachment and less likely to possess attachment anxiety or avoidance when compared with non-leaders. Secure attachment was also significantly and positively related to transformational leadership (Popper, Mayseless, & Castelnovo, 2000) and socialized charismatic leadership (Popper, 2002). Davidovitz, Mikulincer, Shaver, Izsak, and Popper (2007) found that leader attachment anxiety was associated with self-serving leadership and lower levels of task-oriented leadership and follower performance. Moreover, leader attachment avoidance predicted lower levels of: prosocial motives, provision of security for followers, and follower socio-emotional functioning and mental health.

1.1.3 Organizational Citizenship Behaviour

Organizational Citizenship Behaviour (OCB) is defined as “constructive, spontaneous, optional, noncompensated contributions” (Organ, 1994, p. 465). It includes discretionary behaviours that contribute to the effective functioning of the organization, but are not part of a formal job description nor recognized directly by formal reward systems (Podsakoff, Mackenzie, Paine, & Bachrach,

2000). However, certain OCB may become implicitly expected within a job and could receive recognition or reward by informal mechanisms (Organ, 1997).

OCB has also been conceptualized as consisting of five-factors: altruism, courtesy, conscientiousness, civic virtue, and sportsmanship (Podsakoff, Mackenzie, Moorman, & Fetter, 1990), and these were later categorized into two categories of OCB; behaviours directed at individuals (OCB-I; altruism and courtesy) and behaviours directed at the organization OCB-O (conscientiousness, civic virtue, and sportsmanship) (Williams & Anderson, 1991). A meta-analysis by Lepine, Erez and Johnson (2002) showed that the five dimensions of OCB have equivalent associations with predictors (such as leader support and organizational commitment). Hoffman, Blair, Meriac, and Woehr (2007) conducted a factor analysis using meta-analytic data and found support for a two-dimensional model of OCB; however the two sub-dimensions of OCB-I and OCB-O were so highly correlated ($r = .98$) that there is a strong rationale for considering OCB as a single construct.

Personality does not appear to have a major influence on OCB (Organ, 1994; Podsakoff et al., 2000). Organ (1994) suggests that the traditional “big five” measures of personality capture temperament rather than motives, indicating that the aspects of personality that are relevant to OCB are not measured within that taxonomy. Podsakoff et al. (2000) also called for an examination of other individual characteristics as predictors of OCB. Constructs such as attachment,

which are specifically focused on how one relates to others, should enhance understanding of the influence of personality on OCB.

Personality's influence on extra-role behaviours is likely mediated through the quality of work relationships that the worker develops with peers and supervisor. The association between LMX and OCB has been clearly established (Hackett, Farh, Song, & Lapierre, 2003; Ilies, Nahrgang, & Morgeson, 2007; Podsakoff et al., 2000). As indicated in Figure 1, I propose that LMX partially mediates the association between attachment style and OCB.

1.1.4 Counterproductive Work Behaviour

Counterproductive work behaviour (CWB) “consists of volitional acts that harm, or are intended to harm, organizations or people in organizations” (Spector & Fox, 2005, p. 151). CWB may include such activities as withdrawal from work, abuse or hostility toward others, sabotage, or theft (Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006). CWB and OCB are separate constructs – not ends of a continuum -- as shown through factor analysis (Sackett, Berry, Wiemann & Laczó, 2006) and their modest meta-analytically derived inter-correlation of -.32 (Dalal, 2005).

Similar to OCB, the target of the counterproductive behaviour is an important consideration in differentiating the type of CWB (Bennett & Robinson, 2000). Interpersonal (CWB-I) is directed at individuals within the organization (e.g., made fun of someone at work), whereas organizational (CWB-O) is directed

at the organization (e.g., taking a longer than permitted break) (Bennett & Robinson, 2000; Dalal, 2005).

The causal reasoning model of counterproductive behaviour proposes “that counterproductive behavior [sic] is the result of a complex interaction between the person and the environment in which the individual’s causal reasoning about the environment and expected outcomes drive [sic] the individual behavior” (Martinko, Gundlach, & Douglas, 2002, p. 41). Dispositions that predict negative emotions positively predict CWB, including neuroticism (Joclin, Arvey, & McGue, 2001), negative affectivity and anger (Penney & Spector, 2005), trait anxiety (Fox & Spector, 1999; Fox, Spector & Miles, 2001) and narcissism (Judge, Lepine, & Rich, 2006). Salgado (2002) found a negative association between conscientiousness and CWB. While no published studies have reported that the quality of leader-follower relationship is associated with CWB, higher LMX will likely increase a subordinate’s positive work experience (Gerstner & Day, 1997), which should inhibit CWB (Martinko et al., 2002). As indicated in Figure 1, I propose that LMX partially mediates the influence of attachment style of CWB.

1.1.5 Emotion Regulation

Patterns of emotion regulation are also likely to influence how dispositions are “manifested” within leader-subordinate relationships. Emotion regulation refers to the process by which individuals attempt to influence their own

emotions; when and how they experience them, and how they are expressed (Gross, 1998a). According to emotion regulation theory (Gross, 1998a; Gross, 1998b), there are two main types of emotion regulation: antecedent-focused and response-focused. Antecedent-focused emotion regulation involves strategies that alter the emotional impact of a situation. Cognitive reappraisal is an example, and involves changing the way one thinks about a situation such that a different emotional response is experienced (Gross & John, 2003). Response-focused emotion regulation entails strategies that alter one's emotional-behavioural response to an emotion elicited by a situation. An example is suppression, wherein the individual alters one's behavioural expression of a felt emotion (Gross & John, 2003).

Awareness and regulation of emotions assist individuals in achieving situation-appropriate responses at work, interacting with an individual's attachment style to influence the individual's behaviour. The emotional responses that are associated with attachment may be reduced by emotion regulation. Emotions play a role in performance (Cote & Miners, 2006) in part because negative emotions interfere with positive interpersonal relationships. Wong and Law (2002) showed the importance of regulating emotions when enacting situation-appropriate roles in interpersonal relationships. They found that emotional intelligence (which includes a component of emotion regulation) led to improved outcomes such as job satisfaction and OCB. The role of emotion

regulation as a potential moderator of the association between attachment and LMX is considered in the following chapter.

1.1.6 Positive and Negative Affectivity

Positive and negative affectivity refer to two categories that include a variety of mood states, representing two separate dimensions, rather than polar opposites. High positive affectivity is characterized by enthusiasm, energy, concentration, and enjoyment, and low positive affectivity involves lethargy and sadness. On the other hand, high negative affectivity includes experiences of distress and aversive mood states (e.g., anger, fear) whereas low negative affectivity is characterized by serenity and calmness (Watson et al., 1988). These characteristics influence general dispositions and perceptions.

CHAPTER 2: HYPOTHESES DEVELOPMENT

2.1 Attachment and Leader-Member Exchange (LMX)

2.1.1 Direct Effects

Research investigating attachment in non-work relationships has found that attachment anxiety and avoidance are likely to be negatively associated with relationship satisfaction (see review in Mikulincer & Shaver, 2007). Attachment theory may be helpful in enhancing our understanding of the dyadic exchange within LMX, given the interpersonal nature of the leader-subordinate relationship. Trust, respect, and mutual obligation characterize high-quality LMX relationships (Graen & Uhl-Bien, 1995), and a positive view of self and others is a likely prerequisite to achieving them.

Individuals with attachment anxiety are likely to prefer working with others; report feeling unappreciated and misunderstood; seek approval; and worry that their work performance will be criticized, leading to rejection (Hazan & Shaver, 1990). Hardy and Barkham (1994) found that anxious attachment related positively to concerns about work relationships and job performance. Hyperactivating strategies (such as proximity seeking and overdependence; Fraley et al., 2006; Mikulincer et al., 2003; Mikulincer & Shaver, 2005) are likely to interfere with a leader's ability to engage in role-making (Graen & Scandura, 1987) and delegation (Dienesch & Liden, 1986); and hyper-vigilance to threats is also apt to influence the attributions that leaders make about their subordinates'

behaviour. Over-involvement by the leader (through proximity seeking or overdependence) is likely to limit the development of roles for subordinates, resulting in their frustration and impairment in LMX development.

Hypothesis 1a: Leaders' attachment anxiety will correlate negatively with their subordinates' ratings of LMX quality.

In contrast, attachment avoidance is related to a preference for working alone, dissatisfaction with co-workers, the use of work to avoid socializing (Hazan & Shaver, 1990)¹ and avoiding conflict with co-workers (Hardy & Barkham, 1994). Deactivation strategies involve disengagement from interaction with others and efforts to manage difficulties alone (Cassidy & Kobak, 1988; Mikulincer et al., 2003). As such, the avoidant leader is also unlikely to develop close relationships with subordinates, which in turn inhibits affect, loyalty, and contributions (Dienesch & Liden, 1986). Negative views of others may also interfere with the development of LMX, as leader “liking” of subordinates relates positively to subordinate ratings of LMX (Wayne et al., 1997). The distance created by the leader decreases the amount of social exchange, thereby limiting the development of gratitude, felt obligation, and trust (Blau, 1964), which are required for maturation of the relationship (Sparrowe & Liden, 1997).

Furthermore, avoidant individuals are less likely to delegate tasks (Johnston,

¹ Hazan and Shaver used the earlier three-factor typology to assess attachment. Their findings refer to the anxious/ambivalent attachment type, which approximates attachment anxiety; and the dismissing attachment type, which approximates attachment avoidance.

2000), which is also necessary for developing high quality LMX between leaders and their subordinates (Bauer & Green, 1996).

Hypothesis 1b: Leaders' attachment avoidance will correlate negatively with their subordinates ratings of LMX quality.

Like leader attributes, the subordinate's attachment style is likely to influence LMX quality. Subordinates with attachment anxiety are more likely to seek proximity and be overly concerned with work relationships (including with the leader) (Hardy & Barkham, 1994; Hazan & Shaver, 1990). Hyperactivating strategies that involve clinging and controlling behaviours as well as an overdependence on relationships (Mikulincer et al., 2003) will limit the subordinate's ability to accept independent work roles and delegation, which will in turn influence the attributions the leader makes about their work behaviour. These attributions, and the delegation of appropriate tasks, are important elements in developing high quality LMX (Dienesch & Liden, 1986). They determine the extent to which roles are created by the leader and accepted by the subordinate (Graen & Uhl-Bien, 1995). Accordingly, the hyperactivating behaviours are likely to limit the quality of the exchange that develops.

Hypothesis 1c: Subordinates' attachment anxiety will correlate negatively with their ratings of LMX quality.

Attachment avoidance of subordinates will also limit the quality of the exchange they have with their leaders. In much the same way that attachment avoidance of leaders is likely to adversely affect the social exchange within the

relationship, subordinates who prefer to work alone and fail to develop personal relationships at work (Hardy & Barkham, 1994) are likely to disengage from work relationships and to try to manage difficulties alone. This disengagement from relationships with others (including their leader) and the effort to manage difficulties alone (Cassidy & Kobak, 1988; Mikulincer et al., 2003) are likely to lead to lower levels of exchange as relationship effort is positively related to the development of LMX (Maslyn & Uhl-Bien, 2001).

Hypothesis 1d: Subordinates' attachment avoidance will correlate negatively with their ratings of LMX quality.

2.1.2 Moderation Effects: Attachment Anxiety and Avoidance Interactions

Anxiety and avoidance are distinct dimensions of attachment, as evidenced by low inter-factor correlations ($r = .11$, Brennan et al., 1998; $r = .18$, Richards & Schat, 2007). Individuals with higher levels of *both* attachment anxiety and avoidance will have particular difficulty managing relationships. These individuals are referred to as “fearful avoidant” in the four factor typology of attachment and possess a negative view of both the self and others (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). These individuals will distance themselves from others because they will expect to be rejected or punished; however they also require validation of their self-worth from others (Bartholomew & Horowitz, 1991). These conditions are likely to transfer to

the relationship between leader and subordinate, as the person with high anxiety will experience distress, while seeking to detach from those negative emotions.

Hypothesis 1e: Attachment avoidance moderates the negative association between attachment anxiety and LMX, such that this association is stronger when attachment avoidance is high than when it is low.

2.2 Attachment and Organizational Outcomes

Attachment should predict the quality of the exchange between leaders and subordinates and at the same time influence relationship-oriented outcomes such as OCB and CWB. The sections that follow describe the theoretical foundations and hypotheses relating to the direct and indirect (through LMX) effects of attachment on these outcomes.

2.2.1 Attachment and Organizational Citizenship Behaviour

Though individual dispositions have less than expected influence on OCB (Podsakoff et al., 2000), the degree to which an individual is likely to engage in discretionary citizenship behaviours is likely to be influenced by attachment style. Both attachment (with its underlying motives) and some facets of OCB entail relationships either with individuals or with the organization (through its agents), suggesting an association between the two. Attachment theory suggests that individuals high in attachment anxiety and high in attachment avoidance will

experience greater difficulty in managing interpersonal experiences and affective reactions (Mikulincer et al., 2003). Affective states are likely to underlie impulsive or spontaneous behaviours rather than behaviours resulting from cognitive or judgmental processes (Fisher, 2000; Weiss & Cropanzano, 1996). Citizenship is an example of an affect-driven behaviour that is encouraged by positive experiences and affective states (Spector & Fox, 2002). Securely attached individuals are more positive about helping others at work than are avoidant individuals (Hazan & Shaver, 1990). Individuals with attachment insecurity are likely to have negative rather than positive affective experiences at work and are therefore likely to exhibit less spontaneous helping behaviour (Mikulincer & Shaver, 2007). Specifically, individuals with attachment anxiety are less likely to acknowledge the needs of others and to help them due to a personal preoccupation with perceived threats associated with socializing that accompanies high proximity seeking needs.

Hypothesis 2a: Subordinates' attachment anxiety will correlate negatively with their OCB.

In comparison, attachment avoidant individuals are likely to display less OCB because they tend to disengage from others and are less likely to show prosocial behaviours or empathy in their interactions with others.

Hypothesis 2b: Subordinates' attachment avoidance will correlate negatively with their OCB.

2.2.2 Attachment and Counterproductive Work Behaviour

OCB and CWB may be influenced by the same processes, although they are separate constructs and not polar opposites (Dalal, 2005). Consistent with Weiss and Cropanzano (1996), the processes through which affective experiences influence OCB are likely to have a similar effect on CWB. Certain personality traits, negative affective states, and stressors predict CWB (Fox & Spector, 1999; Fox et al., 2001; Penney & Spector, 2005). Attachment theory suggests that anxious attachment is more likely to result in greater negative emotions such as distress and frustration that arise from unmet proximity needs, particularly during times of distress (Mikulincer et al., 2003). These affective experiences predict CWB (Marcus & Schuler, 2004). Job stress relates positively to CWB (Penney & Spector, 2005) and insecure attachment of the anxious type correlates positively with job distress. Collectively, the negative emotional experiences of attachment anxiety are likely to cause distress, frustration and negative affective states, thus resulting in higher rates of CWB. Accordingly:

Hypothesis 3: Subordinates' attachment anxiety will correlate positively with their CWB.

On the other hand, attachment avoidance is likely to result in a defensive detachment from others (Bowlby, 1973) and divert concern from social rejection (Mikulincer et al., 2003). The self-reliance that characterizes the avoidant individual results in a bias toward selectively ignoring information, minimizing

problems or distress, and minimizing the importance of attachment figures (Cassidy & Kobak, 1988). This detachment through deactivation likely results in protection from negative emotions that relate to CWB. Furthermore, the avoidant individual is likely to focus on work tasks (Hardy & Barkham, 1994) and therefore is more likely to avoid CWB which is likely to trigger emotionally charged conflict. These conditions suggest a negative but small association between attachment avoidance and CWB; however these effects are likely to be non-significant and therefore will not be formally hypothesized.

2.3 *LMX as a Mediator*

As described in the preceding sections, attachment is likely to have direct effects on LMX and on relationship-oriented outcomes (OCB and CWB). In addition, LMX is likely to partially mediate the association between attachment and these outcomes. As a precursor to exploring the partial mediation by LMX, it is necessary to establish the linkages between LMX and the outcome variables, OCB and CWB.

2.3.1 *Linkages between LMX and Outcomes*

2.3.1.1 *Organizational Citizenship Behaviour*

Higher levels of OCB are generally related positively to the quality of the leader-member exchange, which enhances felt obligation and inspires individuals

to consider collective interests over self-interests (Graen & Uhl-Bien, 1995; Wang et al., 2006). Meta-analyses (Hackett et al., 2003; Ilies et al., 2007; Podsakoff et al., 2000) provide clear evidence that LMX is associated with OCB. Accordingly, hypothesizing this association is unnecessary.

2.3.1.2 *Counterproductive Work Behaviour*

In contrast to several studies of the association between LMX and OCB there are few studies of LMX-CWB association. The basis for expecting a negative association between LMX and CWB is derived from the frameworks of causal reasoning (Martinko et al., 2002), social exchange (Blau, 1964) and reciprocity (Gouldner, 1960). The causal reasoning model of counterproductive behaviour proposes “that counterproductive behaviour is the result of a complex interaction between the person and the environment in which the individual’s causal reasoning about the environment and expected outcomes drive the individual behaviour” (Martinko et al., 2002, p. 41). This model suggests that individual differences combine with organizational contextual factors (including leader style and approach) to form attributions and cognitions about the organization. These attributions and cognitions lead to affective responses that are expressed behaviourally. LMX predicts positive organizational contributions, such as task performance and citizenship behaviours (Settoon, Bennett, & Liden, 1996). The processes underlying LMX are also likely to influence the association between LMX and CWB. In addition to the felt-obligation typical of high LMX

which is likely to weaken subordinates' inclinations toward CWB, higher LMX is associated with more positive attributions and cognitions, which is likely to result in affective experiences and behavioural expressions that are also positive.

Hypothesis 4: LMX quality will correlate negatively with subordinates' CWB.

2.3.2 *LMX as Partial Mediator between Attachment and OCB*

As described earlier, attachment anxiety and avoidance are likely to influence the quality of the exchange between leaders and their subordinates. Lower quality exchanges characteristic of anxious and avoidant attachment should explain variance in work related outcomes. For each of the outcome variables in the current study, LMX quality is likely to account for a portion (partial mediation) of the shared variance between attachment and these workplace outcomes. Higher levels of OCB are related to LMX quality (Hackett et al., 2003; Ilies et al., 2007; Podsakoff et al., 2000), which is characterized by mutual felt-obligation and a concern for collective interests over self-interests (Graen & Uhl-Bien, 1995; Wang et al., 2006). Dyads that contain individuals with attachment insecurity are less likely to develop LMX quality, which will contribute to the reduced level of OCB. Partial mediation is likely because the direct influence of attachment style should explain variance in OCB not attributable to LMX quality alone.

Hypothesis 5a: LMX quality will partially mediate the negative association between subordinates' attachment anxiety and their OCB.

Hypothesis 5b: LMX quality will partially mediate the negative association between subordinates' attachment avoidance and their OCB.

2.3.3 LMX as Partial Mediator of the Association between Attachment Anxiety and CWB

As described earlier, attachment anxiety is likely to inhibit the development of LMX and to increase the likelihood of CWB. The causal reasoning model of counterproductive behaviour (Martinko et al., 2002) suggests that individual differences (in this case, attachment anxiety) and the work context (such as the quality of the exchange between the leader and subordinate) both contribute to the incidence of CWB.

With reference to attachment anxiety, partial mediation is hypothesized because hyperactivating strategies (Mikulincer et al., 2003) are likely to inhibit LMX, while generating negative affective experiences, which in turn motivate CWB (Fox & Spector, 1999; Fox et al., 2001; Jockin et al., 2001; Penney & Spector, 2005). Accordingly:

Hypothesis 6: LMX quality will partially mediate the positive association between subordinates' attachment anxiety and their CWB.

Attachment avoidance is not expected to predict CWB, and therefore mediation of LMX is not hypothesized.

2.4 Moderating Influence of Emotion Regulation

Finally, I investigate the influence of emotion regulation as a moderator of the association between attachment style and LMX. Emotion regulation strategies such as antecedent-focussed reappraisal and response-focussed suppression are likely to interact with individual dispositions to influence the ability of both leaders and subordinates to participate constructively within their relationship.

2.4.1 Attachment, Emotion Regulation, and LMX

Individuals with anxious attachment tend to ruminate on negative thoughts and feelings and have difficulty separating themselves from distressing experiences (Mikulincer & Florian, 1998). As a result they are less apt to use reappraisal and suppression as a form of emotional regulation in general (Richards & Schat, 2007). On the other hand, attachment avoidant individuals are more likely to attempt to generate distance from experienced emotions (Mikulincer et al., 2003) and therefore are more likely to use suppression as a form of emotion regulation (Gross & John, 2003). Despite the fact that attachment may predispose

individuals to use (or not use) specific emotion regulation strategies, the degree to which an individual uses emotion regulation strategies (reappraisal and suppression) may mitigate the barriers that these dispositions have in developing positive work relationships.

Therefore, I test the interaction effects of emotion regulation and attachment style on LMX quality. Within the context of interpersonal relationships, emotion regulation should assist individuals with insecure attachment styles to alter (specifically minimize) the extent of negative emotions, and therefore establish a more constructive relationship. The nature of the attachment insecurity and the emotion regulation strategy employed will determine the efficacy of that strategy.

With respect to the reappraisal and suppression forms of emotion regulation, reappraisal will be the more effective strategy for developing LMX. Reappraisal involves regulating the precursors to emotional experiences, whereas suppression involves modifying the behavioural expression of the emotion (Grandey, 2000). Reappraisal may also assist individuals to manage their affective reactions to environmental cues that would otherwise trigger the attachment system. In this way, anxiously attached individuals might regulate their response to cues in order to avoid the hyperactivation of proximity seeking, while avoidant individuals could circumvent the deactivation of the attachment system. These strategies would result in a more constructive interaction with the other member of the dyad. Additionally, the use of reappraisal may assist leaders and

subordinates in managing negative affective experiences that arise from unmet attachment needs within the relationship. More specifically, anxious individuals may react negatively to frustration arising from unsatisfactory proximity seeking, while avoidant individuals may react negatively to their inability to sufficiently disengage from the relationship.

Hypothesis 7a: Leaders' use of reappraisal will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher for leaders with attachment anxiety if they use reappraisal.

Hypothesis 7b: Leaders' use of reappraisal will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher for leaders with attachment avoidance if they use reappraisal.

Hypothesis 7c: Subordinates' use of reappraisal will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher if a subordinate with attachment anxiety uses reappraisal.

Hypothesis 7d: Subordinates' use of reappraisal will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher if a subordinate with attachment avoidance uses reappraisal.

In the case of suppression, the negative emotion is still experienced; however others may not be aware of the affective state of the individual because the behavioural expression of that emotion is suppressed. Suppression may therefore be beneficial to the development of LMX as the attributions are formed based on the behaviour of the other individual (Dienesch & Liden, 1986). If however, the individual who is suppressing negative emotions is also rating the quality of the exchange, emotional labour (Brotheridge & Lee, 2001) and the negative emotions that they have experienced will contribute to the attributions that they make about the relationship. Therefore suppression is unlikely to moderate the association between attachment and LMX for the person rating the exchange quality. In this study, LMX is rated by the subordinate, and therefore leader suppression is likely to moderate the association between attachment and LMX, while subordinate suppression is not.

Hypothesis 7e: Leaders' use of suppression will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher for leaders with attachment anxiety if they use suppression.

Hypothesis 7f: Leaders' use of suppression will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher for leaders with attachment avoidance if they use suppression.

2.4.2 *Attachment, Affectivity, Emotion Regulation, and LMX*

Like most human interactions, relationships at work are influenced by a number of factors, and therefore I will seek to further understand the complexity of LMX development by incorporating affectivity into the moderator analysis. I propose that trait positive and negative affectivity (which indicate the general extent of either positive or negative mood; Watson et al., 1988) will further understanding of how leaders' attachment and use of emotion regulation influence the relationship that they develop with their subordinates. These three-way interactions examine leader's individual characteristics (attachment and affectivity) and their use of suppression as a means of emotion regulation. These specific interactions were chosen because subordinates rated the quality of LMX. As explained in section 2.6.1, suppression is less likely to influence the attributions that followers make about the exchange quality because their actual affective experiences will influence the attributions they make. On the other hand, when supervisors use suppression, it is only their behavioural expression of emotion that influences subordinate-rated LMX. Additionally, the analysis focuses on suppression, as reappraisal alters the affective experience of the leader, and therefore reduces the influence of affectivity on LMX quality.

In terms of the interactions involving negative affect, attachment, and emotion regulation, greater use of suppression by leaders will result in higher quality LMX when they have higher levels of trait negative affectivity with higher levels of attachment anxiety and avoidance. Negative affectivity predisposes

individuals to adverse mood states (Watson et al., 1988), and therefore is likely to interact with attachment insecurity to potentiate the negative reactions to unmet relationship needs. In this situation, leaders who are predisposed to adverse mood states and who have negative affective experiences relative to unmet attachment needs in the relationship are less likely to develop positive relationships with subordinates; however their ability to suppress their negative emotions should result in more positive attributions by subordinates, and thereby higher LMX.

Hypothesis 8a: Leaders' attachment anxiety will be more negatively associated with LMX under conditions of high (as compared to low) leader negative affectivity and low (as compared to high) levels of leader suppression.

Hypothesis 8b: Leaders' attachment avoidance will be more negatively associated with LMX under conditions of high (as compared to low) leader negative affectivity and low (as compared to high) levels of leader suppression.

On the other hand, higher positive affectivity likely results in more positive mood states (Watson et al., 1988) that interact with the attachment experiences within the supervisor-subordinate relationship and likely reduce the negative experiences associated with attachment insecurity. Leader positive affectivity positively predicts subordinate-rated LMX (Liden et al., 1997). Positive emotions have positive effects on leadership and in a general sense, improve thought processes and increase flexibility (Avolio, Gardner, Walumbwa,

Luthans, & May, 2004). Enthusiasm, alertness, and higher energy and other characteristics of positive affectivity on the part of the leader are likely to positively influence their reaction to unmet attachment needs.

In terms of this interaction involving attachment anxiety, it is expected that positive affectivity will buffer the negative affective reactions associated with hyperactivation of the attachment system, and suppression may inhibit the behavioural expression of those reactions within the leader-subordinate dyad. In this way, subordinates will provide more positive LMX ratings because the leader suppresses negative emotions, but displays more positive affect. Individuals who are low on positive affect are likely to appear less enthusiastic or affirmative, particularly if they do not regulate negative emotions through suppression.

Hypothesis 8c: Leaders' attachment anxiety will be less negatively associated with LMX under conditions of high (as compared to low) leader positive affectivity and among leaders who use high (as compared to low) levels of suppression.

Positive affectivity and suppression are also likely to influence the association between attachment avoidance and the development of LMX quality. Individuals who have higher levels of attachment avoidance seek to deactivate proximity seeking. A leader who possesses greater positive affectivity will demonstrate greater enthusiasm and energy (Watson et al., 1988) which may compensate for lower levels of interpersonal interaction. This effect is also likely

to be more pronounced when the leader also uses suppression to regulate their negative emotions (which could curtail their energy and enthusiasm).

Hypothesis 8d: Leaders' attachment avoidance will be less negatively associated with LMX under conditions of high (as compared to low) leader positive affectivity and among leaders who use high (as compared to low) levels of suppression.

CHAPTER 3: METHOD

3.1 Sample and Procedure

The study sample involved managers and front-line staff from two hospitals in the same Ontario city. The two hospitals have separate governance structures, and offer different services to the community, with one offering acute care services, and the other providing rehabilitation and complex continuing care. There are approximately 1500 employees in the two hospitals. Manager (leader) and front-line staff member (subordinate) data were matched to form dyads.

Hospital workers are a suitable population for inclusion in attachment research due to their relatively high-stress work environments and the greater likelihood that attachment systems will be activated when individuals experience distress (Mikulincer, Gillath, & Shaver, 2002; Davidovitz et al., 2007). Although the intensity of stress in health care settings may not be as great as in settings of military personnel (e.g., Davidovitz et al., 2007), hospital employees are likely to experience considerable stress from multiple sources. First, the serious illnesses hospital workers are likely to encounter, as well as an overall increase in care requirements of patients, can be stressful. (Bourne, 2005; Oulton, 2006). Second, in recent years, organizational restructuring and changes to the delivery of services have resulted in greater demands on hospital employees, lower job security, and diminished social support (Grinspun, 2003; Oulton, 2006; Raiger,

2005). Finally, nurse labour shortages have contributed to higher stress levels by creating heightened workloads and extended hours of work (Oulton, 2006)

Three surveys were used to collect the data. The first was sent to all managers in the two organizations, and contained self-report instruments, including measures of attachment, affectivity, and emotion regulation. The majority of managers were female (76 percent), with an average age of 47. On average, the managers had been with the organization for 13 years, and in their current position for 8 years. They worked an average of 42 hours per week, and had approximately 40 direct reports. Ninety-two percent were graduates of post-secondary education programs.

The second survey was distributed to a portion of the front-line staff and included the same content as the manager's survey, a measure of LMX with their direct manager, and self-ratings of OCB and CWB. Individuals at both organizations working more than the equivalent of two days weekly were eligible to participate. Participants were selected from staff lists in a quasi-random manner (i.e., every fourth person on the list). As expected, the majority of participants were female (95 percent), with an average age of 45 years. On average, these employees worked with in the organization for 12 years, in their current position for 9 years, and with their supervisor for 4 years. The average number of hours worked per week was 36. The majority of participants were graduates of post-secondary education programs (73 percent).

A third survey was distributed to three co-workers by the front-line staff who participated in the survey. It requested that co-workers rate the OCB and CWB of the front-line staff member from whom they received their survey. The front line staff study participants had been instructed to distribute this third survey to the three co-workers best able to assess their behaviour at work. Co-workers were asked to provide these performance ratings for four primary reasons. First, co-workers in health care settings typically work closely with their colleagues and therefore are best able to assess citizenship and counterproductive behaviours of the front line staff. Second, having co-workers rate front-line staff performance reduced the burden on the front-line manager, which increased the number of front-line staff that could be solicited to participate in this study. Third, collecting performance data from outside the leader-follower dyad (namely from co-workers) reduced common method related problems in the interpretation of results. Finally, by collecting other-ratings from co-workers, staff members were able to participate in the study without their manager's knowledge, removing the potential for perceived pressure to participate.

Response rates varied for the different categories of participants: 37 manager surveys were distributed and 27 (73%) were returned; 132 (36%) of the 367 front-line staff surveys were returned; and 293 co-workers (74%)² participated. Ninety-two percent of co-workers were female with an average age

² Three co-worker surveys were included in each package to the frontline staff. Co-workers of staff who did not participate were not included in this response rate as they were unlikely to have received the survey.

of 42. On average, these individuals worked in the organization for 11 years, in their current position for 8 years, and with the person they were rating for 6 years. The majority of coworkers (77 percent) were graduates of post-secondary education programs.

As previously noted, staff members were asked to invite co-workers to participate who were best able to rate their behaviour at work. A suggestion was made in the introductory materials that they give the survey to persons they worked with the longest. This was done to reduce a positive bias that could have resulted from people having their friends complete the survey. Assurances were made that the information would not be shared with anyone in the organization and hence would not result in any consequences (either positive or negative) for the person rated.

Self-report measures of OCB and CWB were included in the front-line staff survey as a precaution to co-worker non-response. The average self ratings for OCB and CWB were higher than co-worker ratings of OCB (5.80 vs. 5.69) and CWB (1.70 vs. 1.37). These self ratings were not aggregated with the co-worker ratings as the two were distinct for both OCB ($t = 31.92, p < .001$) and CWB ($t = 32.12, p < .001$) and their inter-correlations were not significant for either OCB ($r = .11, ns$) or CWB ($r = .04, ns$).

All three surveys included questions related to individual demographic and work unit characteristics in order to contextualize the research.

Manager and front-line staff participants were given (in the participation solicitation package) a gift certificate from Tim Horton's (a coffee and doughnut franchise) as an incentive for them to participate in the study. Co-worker surveys did not include the gift certificate as they required less than 5 minutes to complete, and given the number of co-worker surveys required it would have been cost prohibitive to include them. An additional incentive was provided in the form of two draw prizes, each for a \$100 gift certificate to a local shopping mall. This latter incentive was made available to all participants, including the co-workers.

3.2 *Measures*

A summary of scales used in each of the three survey administrations is provided in Appendix C, and the items included in each scale are presented in Appendix D.

Leader-Member Exchange. LMX was measured with the multidimensional LMX-MDM (Liden & Maslyn, 1998). It consists of 12 items answered on 5-point scales ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Sample items include "I like my supervisor very much as a person" and "My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question". Liden and Maslyn (1998) report reliability coefficients for the subscales of .90 for affect, .74 for loyalty, .57 for contribution, and .89 for professional respect for organizational employee samples.

Attachment. Supervisor and subordinate attachment was measured using a version of the Experience in Close Relationships scale (ECR; Brennan et al., 1998) adapted by Richards and Schat (2007) for use in organizational settings. The 36-item scale consists of two subscales – attachment anxiety and attachment avoidance. Richards and Schat report an alpha coefficient of .93 for the anxiety subscale and .90 for the avoidance subscale. These results are consistent with Brennan et al.'s coefficients with the original scale, which assessed attachment in the context of romantic relationships. The majority of items from the 18-item ECR anxiety scale were adapted to refer to other people rather than a romantic partner (e.g., “I need a lot of reassurance that I am liked and appreciated by other people.” and “If I can't get others to show interest in me, I get upset or angry”). A few items from the ECR anxiety scale were generic enough for inclusion in the adapted scale (for example “I worry about being abandoned” or “I worry about being alone”). The avoidance scale contains 18 adapted items (e.g., “I usually discuss my problems and concerns with other people” and “I am very comfortable being close to others” negatively keyed). Responses were provided on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

The ECR (Brennan et al., 1998) is comprised of the two dimensions which are in turn composed of three factor-analytically derived sub-dimensions which, according to attachment theory, reflect key aspects of the content domains of the two higher order attachment dimensions. Attachment anxiety contains *fear of rejection, jealousy or fear of abandonment*, and *pre-occupation with*

relationships. Attachment avoidance contains *discomfort with closeness, self-reliance, and avoidance of intimacy*.

Affectivity. Positive and negative affectivity was measured with the PANAS (Watson et al., 1988) for both leaders and subordinates. Each dimension of affectivity was assessed using 10 words describing either positive emotions (e.g., excited, strong) or negative emotions (e.g., afraid, hostile). The response format ranged from “not at all” to “very much” on a 5-point Likert scale.

Organizational Citizenship Behaviour. OCB was measured with 15 items drawn from the 24-item Organizational Citizenship Behaviour Scale (Podsakoff et al., 1990), with three items for each OCB dimension (altruism, civic virtue, conscientiousness, courtesy, and sportsmanship). Items were selected based on the degree to which they reflected a hospital environment and the likelihood that a co-worker could assess the behaviour. In addition, the three items selected for each dimension had high factor loadings in the Podsakoff et al. (1990) study, demonstrating their fidelity in assessing the specific facet of OCB. One conscientiousness item, “Is one of my most conscientious employees” was changed to “Is one of the department’s most conscientious employees” to reflect the co-worker assessment. Other sample items include “Always finds fault with what the organization is doing” (Sportsmanship; reverse scored), “Attends meetings that are not mandatory, but are considered important” (Civic Virtue), “Takes steps to try to prevent problems with other workers” (Courtesy), and

“Helps others who have heavy workloads” (Altruism). Responses were scored on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

Counterproductive work behaviours. CWB was measured using items from the Bennett and Robinson (2000) Measure of Workplace Deviance. Three co-workers of each front-line staff participant completed the 19-item scale. Co-workers identified the number of times (ranging from “never” to “daily”) the front-line staff member they rated engaged in each behaviour (e.g., “made fun of someone at work” or “came in late to work without permission”) in the past year. Bennett and Robinson (2000) reported a reliability coefficient of .81 for the scale. Front-line staff also provided self-ratings of CWB using a scale of 5 items measuring interpersonal deviance (directed at another person) and 5 items assessing organizational deviance (directed at the organization). These items were selected from the 19 item Bennett and Robinson (2000) CWB scale based on their factor loadings on their respective subscales.

Emotion Regulation. The use of emotion regulation strategies (reappraisal and suppression) by both supervisors and subordinates was measured using the Emotion Regulation Questionnaire (Gross & John, 2003). Sample items of the reappraisal scale include “I control my emotions by changing the way I think about the situation I’m in” and “When I want to feel less negative emotion, I change the way I’m thinking about the situation”. The suppression scale includes items such as “When I am feeling negative emotions, I make sure not to express them” and “I keep my emotions to myself”. Gross and John reported alpha

coefficients of .75 to .82 for the reappraisal scale and .68 to .76 for the suppression scale. Responses were scored on a 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*.

3.3 *Data Analysis*

Initial data analysis involved computing descriptive statistics, including means, standard deviations, reliability coefficients, and zero-order correlations. Moderator effects were assessed using multiple regression analysis as outlined by Aiken and West (1991).

3.4 *Common Method Variance*

The study involved self-report survey instruments with data collected at a single point in time. This strategy is prone to common method variance and single source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Accordingly, data were collected from three separate sources. The independent and mediator variables were collected from the manager and the subordinates that reported to them, while a co-worker of the front-line staff member provided data on the dependent variables. Three co-workers were sampled to provide ratings of the front-line workers' OCB and CWB. Scores were averaged across these co-workers to obtain overall ratings of OCB and CWB on each front line worker.

Surveys were submitted electronically or mailed directly to the researcher in a sealed envelope, thus increasing the confidentiality of the information

provided. A research assistant was hired to receive the consent forms and create a list of matched identification codes so that the participant's identity remained hidden from the researcher. Individuals invited to participate were assured of the anonymity of their responses.

CHAPTER 4: RESULTS

4.1 Descriptive Statistics and Zero-Order Correlations

Means, standard deviations, zero-order correlations, and alpha reliability coefficients for subordinate-rated variables are presented in Table 1. The same computations for subordinate-rated individual characteristics and co-worker-rated OCB and CWB are provided in Table 2. Both self-reported and co-worker rated OCB and CWB were included in the research design because both provide the potential for uniquely different information. Table 3 contains descriptive statistics on leader individual characteristics and subordinate-rated criterion variables; alpha coefficients were moderate to high (.72 to .94), with the exception of manager suppression which was .62.

Listwise deletion was used in the correlation matrices because it enables consistent comparisons of cases in the specific analyses involving data from different sources. In this study, data were collected from three sources and listwise deletion enabled correlations among subpopulations within the study (e.g., subordinates, subordinates with co-worker ratings, subordinates with leader ratings). The primary concern with listwise deletion is the loss of data from the exclusion of cases, and although the samples were relatively small, there were only a comparatively few cases with missing variables (at most 7 subordinate cases). As a precaution, parallel analyses using pairwise deletion were also conducted on the subordinate data, and while there were small differences with

specific correlations (less than .03), the overall magnitude and direction of the correlations were consistent.

Both self- and co-worker ratings of OCB and CWB were obtained to ensure a back-up in the event of a low response rate from the co-workers. However, the two measures also provide different perspectives and therefore cannot be considered equivalent. Self-report measures are prone to error due to social desirability and create problems of common method bias when measures collected from the same source by the same method provide the data for the focal analyses. At the same time, the accuracy of other-reported ratings depends on these “others” having had adequate opportunity to observe the behaviours of their target co-workers so as to be able to provide reliable ratings (Podsakoff & Organ, 1986; Spector, 1994). Including both measures provided the potential to develop a fuller picture of OCB and CWB. As reported in Chapter 3, statistical analysis also supported the decision to treat them separately.

Tables 1 to 3 show that generally neither attachment anxiety nor attachment avoidance of manager or subordinate correlated with either self- or other- ratings of subordinates' OCB; and the same pattern of non-significant associations was found for CWB. The only exception was that managers' attachment avoidance correlated with subordinates' self ratings of CWB ($r = -.30$, $p < .05$), suggesting that workers tend to show fewer counterproductive behaviours when their manager's disposition is to keep socially distant from them. Perhaps managers with such a disposition use work to avoid social interaction, by

way of showing a high task orientation. Should this be the case, socially avoidant managers may actually be modelling unit task focused behaviour, thereby indirectly discouraging CWB. This may particularly be the case for hospital health care managers, where spans of control tend to be high, allowing for little one-on-one interaction between them and their direct subordinates. In any case, this interpretation is highly speculative and requires further research.

Healthcare workers from two hospitals participated in this study. The means, medians, and standard deviations for demographic variables are displayed in Table 4 (subordinate) and Table 5 (leader). T-tests of independent samples were conducted and no significant differences were found for participants from the two organizations with respect to the demographic, independent, moderator, or dependent variables.

4.2 *Measurement Model*

To test the construct validity of the measures used, confirmatory factor analyses (CFAs) were conducted on the variables included in the study. CFAs were conducted for the hypothesized variable factor models and compared with alternative competing models. The sample size prohibited testing of a full-scale measurement model, and CFAs were conducted for each variable, and then observed variables were used to test the discriminant validity and dimensionality of antecedent and criterion variables.

4.2.1 Attachment

A hierarchical factor structure was tested for attachment, which contained the two oblique factors of attachment anxiety and attachment avoidance. As indicated by Brennan et al. (1998), the anxiety factor is composed of three sub-dimensions: fear of rejection, jealousy or fear of abandonment, and pre-occupation with relationships; and the avoidance factor is represented by: discomfort with closeness, self-reliance, and avoidance of intimacy. The hypothesized factor structure had the best fit ($\chi^2 = 1200.10$, $df = 587$; $RMSEA = .082$; $CFI = .74$ $NFI = .61$), although the CFI and NFI indices were lower than the desired .90. An orthogonal six-factor model (content-domain sub-dimensions) was also tested with a decrease in the fit indices ($\chi^2 = 1385.31$, $df = 594$; $RMSEA = .101$; $CFI = .66$ $NFI = .49$). An orthogonal two-factor model (anxiety and avoidance) also had poorer fit than the proposed model ($\chi^2 = 1303.07$, $df = 593$; $RMSEA = .096$; $CFI = .63$ $NFI = .50$). A single factor model had much poorer fit ($\chi^2 = 2022.35$, $df = 594$; $RMSEA = .124$; $CFI = .41$ $NFI = .34$). All path coefficients were significant at the $p < .001$ level. These results indicate that the structure of the attachment measure is acceptable.

4.2.2 *Antecedents and Moderators*

The sample size and the large number of items included in the attachment measure precluded using latent variables to test the measurement model. Observed variables comprised of the sub-domains of each attachment dimension were computed, so that subsequent CFAs included latent attachment factors that were composed of three observed parcels reflecting the content domain. In order to test the discriminant validity of the antecedents included in the study, a CFA was conducted for attachment, affectivity, and emotion regulation. The hypothesized model consisted of an oblique six factor model that included attachment anxiety, attachment avoidance, positive affectivity, negative affectivity, reappraisal, and suppression. The affectivity and emotion regulation scales are relatively short and the items were used in the analysis along with observed variables (parcels) reflecting the sub-dimensions of the larger attachment scale. The hypothesized model ($\chi^2 = 991.25$, $df = 579$; $RMSEA = .067$; $CFI = .81$, $NFI = .66$) had improved fit over both an orthogonal model ($\chi^2 = 1115.13$, $df = 594$; $RMSEA = .075$; $CFI = .76$ $NFI = .61$), a single-factor model ($\chi^2 = 2154.75$, $df = 594$; $RMSEA = .129$; $CFI = .29$ $NFI = .25$), a two-factor oblique model composed of personality (attachment and affectivity) and emotion regulation (reappraisal and suppression) ($\chi^2 = 1818.24$, $df = 593$; $RMSEA = .115$; $CFI = .45$ $NFI = .37$). These results support the hypothesized model in which

attachment, affectivity, and emotion regulation are distinct but correlated variables. All path coefficients were significant at $p < .01$ or higher.

4.2.3 *Dependent Variables*

CFAs were conducted for each of the dependent variables (LMX, OCB, CWB) prior to creating observed variables for subsequent analyses.

LMX was measured using a multidimensional measure and a hierarchical factor structure was tested. The single factor LMX was hypothesized to contain four sub-factors (affect, loyalty, perceived contribution, and professional respect). The hypothesized model had better fit ($\chi^2 = 117.68$, $df = 48$; $RMSEA = .106$; $CFI = .94$ $NFI = .92$), than a model composed of orthogonal sub-factors ($\chi^2 = 412.644$, $df = 54$; $RMSEA = .226$; $CFI = .73$ $NFI = .71$), and a single factor model ($\chi^2 = 325.553$, $df = 54$; $RMSEA = .197$; $CFI = .80$; $NFI = .77$). All path coefficients were significant at $p < .001$.

The hypothesized model for co-worker-rated OCB included five oblique sub-dimensions (altruism, courtesy, conscientiousness, civic virtue, and sportsmanship). The hypothesized model had much better fit ($\chi^2 = 149.65$, $df = 80$; $RMSEA = .055$; $CFI = .98$; $NFI = .95$), than an orthogonal model ($\chi^2 = 683.32$, $df = 90$; $RMSEA = .150$; $CFI = .79$; $NFI = .77$), and a single factor model ($\chi^2 = 1047.03$, $df = 90$; $RMSEA = .191$; $CFI = .66$; $NFI = .64$). All path coefficients were significant at $p < .001$.

The hypothesized model for self-rated OCB included five oblique sub-dimensions (altruism, courtesy, conscientiousness, civic virtue, and sportsmanship). The hypothesized model had much better fit ($\chi^2 = 132.51$, $df = 80$; $RMSEA = .071$; $CFI = .93$; $NFI = .85$), than an orthogonal model ($\chi^2 = 245.59$, $df = 90$; $RMSEA = .115$; $CFI = .80$; $NFI = .73$), and a single factor model ($\chi^2 = 417.85$, $df = 90$; $RMSEA = .167$; $CFI = .58$; $NFI = .54$). All path coefficients were significant at $p < .001$.

Self-rated CWB was hypothesized to contain two sub-factors (those directed at individuals and those directed at the organization). The hypothesized model had better fit ($\chi^2 = 71.18$, $df = 34$; $RMSEA = .092$; $CFI = .83$; $NFI = .74$) than an orthogonal model ($\chi^2 = 104.65$, $df = 35$; $RMSEA = .124$; $CFI = .67$; $NFI = .61$) and slightly better than a single-factor model ($\chi^2 = 75.162$, $df = 35$; $RMSEA = .094$; $CFI = .81$; $NFI = .72$). All path coefficients for were significant at $p < .05$ for the CWB-O sub-factor and $p < .001$ for the CWB-I sub-factor.

A factor solution could not be reached using the 19-item co-worker-rated CWB items. The lack of variance in these responses (resulting in extremely non-normal data) and a number of items that may reflect either low-frequency or unobserved behaviours may have contributed to this result.

A factor analysis was conducted for the dependent variables using parcels computed for the sub-factors of each of the dimensions. The hypothesized model involved three factors (LMX, OCB, and CWB) each composed of their sub-

dimensions. As there is a low very correlation between LMX and CWB these factors were not correlated; however LMX correlated with OCB and OCB correlated with CWB. The proposed model had marginally better fit ($\chi^2 = 81.88$, $df = 42$; $RMSEA = .085$; $CFI = .92$; $NFI = .85$) than a fully oblique model ($\chi^2 = 81.81$, $df = 41$; $RMSEA = .088$; $CFI = .91$; $NFI = .85$), moderately better fit than an orthogonal model ($\chi^2 = 96.22$, $df = 45$; $RMSEA = .094$; $CFI = .89$; $NFI = .82$), and much better fit than a single factor model ($\chi^2 = 232.161$, $df = 44$; $RMSEA = .181$; $CFI = .60$; $NFI = .57$). These results support the discriminant validity and dimensionality of the dependent variables. All path coefficients were significant at $p < .05$ or higher.

4.2.4 Moderator Analyses Variables

Finally, a factor analysis was conducted for the variables used in the moderator analysis. The hypothesized model was an oblique five factor model comprised of the two attachment dimensions, the two forms of emotion regulation, and LMX. The hypothesized model had better fit ($\chi^2 = 318.23$, $df = 160$; $RMSEA = .087$; $CFI = .86$; $NFI = .77$) than an orthogonal model ($\chi^2 = 373.29$, $df = 170$; $RMSEA = .096$; $CFI = .82$; $NFI = .73$) and a unidimensional model ($\chi^2 = 1086.95$, $df = 170$; $RMSEA = .204$; $CFI = .21$; $NFI = .20$), and a three factor model (one factor for attachment, one factor for emotion regulation, and LMX) ($\chi^2 = 577.28$, $df = 167$; $RMSEA = .137$; $CFI = .64$; $NFI = .58$). These

analyses indicate that the variables included in the moderator analysis are correlated, but distinct constructs, and suggest that there are different associations between the dimensions of attachment and emotion regulation and the other variables.

4.3 Hypothesis Testing

4.3.1 Direct Effects: Attachment and LMX

Hypotheses 1a and 1b predicted that leader attachment anxiety (H1a) and avoidance (H1b) would be negatively related to LMX. Table 3 shows that there was no support for the hypothesized associations: anxiety ($r = .18, p > .05, N = 63$); avoidance ($r = -.14, p > .05, N = 63$). Similarly, Table 1 shows that there was no support for hypothesized associations between LMX quality and the two dimensions of attachment for subordinates: anxiety ($r = -.09, p > .05, N = 122$; H1c); avoidance ($r = -.09, p > .05, N = 122$, H1d) which were also expected to be negatively related to LMX.

Additionally, tests were undertaken for an interaction effect of the attachment dimensions on LMX. Attachment anxiety and avoidance were centered and the interaction term was calculated. Centering involves subtracting the sample mean of the variables from individual scores prior to calculating the product of those variables (the interaction term). The purpose of centering is to improve interpretability and to reduce problems of multicollinearity between the main and interaction effects (Aiken & West, 1991; Tabachnick & Fidell, 2001).

The two dimensions were entered in step 1 and the interaction term was entered into step 2 of the hierarchical linear regression. Hypothesis 1e predicted that individuals with higher levels of anxiety and avoidance would have lower levels of LMX. The interaction term was not significant ($\Delta R^2 = .01, p > .05, N = 63$) and the hypothesis was not supported.

4.3.2 *Direct Effects: Attachment and OCB and CWB*

The attachment dimensions were hypothesized to be negatively related to OCB. Table 1 shows that subordinate attachment anxiety was not significantly related to self-rated OCB ($r = -.15, p > .05, N = 122$), contrary to H2a, and subordinate attachment avoidance only trended toward significance in its association with OCB, thereby providing only marginal support for H2b ($r = -.17, p = .06, N = 122$). Similarly, Table 2 shows that attachment dimensions for subordinates were not significantly related to co-worker ratings of their OCB: anxiety ($r = .10, p > .05, N = 90$); avoidance ($r = -.10, p > .05, N = 90$). Taken together, neither H2a nor H2b was supported. Moreover, subordinate attachment anxiety was unrelated to either self-rated CWB ($r = .10, p > .05, N = 122$; Table 1) or co-worker-rated CWB ($r = .13, p > .05, N = 90$; Table 2), contrary to H3.

4.3.3 *Direct Effects: LMX and CWB*

Contrary to Hypothesis 4, that subordinates in better quality relationships would engage in fewer CWB, LMX was not significantly related to subordinate

CWB using self-report ($r = .01, p > .05, N = 122$; Table 1) or co-worker-reported data ($r = -.06, p > .05, N = 90$; Table 2).

4.3.4 *LMX as a Mediator*

Hypotheses 5a, 5b, and 6 proposed that LMX mediates the association between individual characteristics and the criterion variables (OCB and CWB). Attachment was not significantly correlated with LMX, and because covariation in the independent and mediator variables is a necessary condition for mediation (Baron & Kenny, 1986), these hypotheses were not tested.

4.3.5 *Moderating Effect of Emotion Regulation*

Although no direct effects between the individual characteristics and subordinate-rated LMX were found, there is evidence that in some cases the use of reappraisal to regulate emotion has moderating effects. To test for such effects, the independent variables and reappraisal were centered and the interaction effects calculated consistent with the manner described in section 4.3.1. It was hypothesized that the interaction between leaders' use of reappraisal and their attachment influence LMX. For leaders, no such interaction effect was detected, contrary to hypotheses 7a regarding anxiety ($\Delta R^2 = .02, F = .99, ns, N = 63$) and hypothesis 7b regarding avoidance ($\Delta R^2 = .01, F = .67, ns, N = 63$). Although not hypothesized, there was a direct effect of leader reappraisal on LMX ($r = .33, p <$

.01, $N = 63$), indicating that regulating emotions with reappraisal is beneficial for leaders regardless of their attachment disposition.

There was some support for the interaction effect of subordinate's reappraisal on the association between the attachment dimensions and subordinate-rated LMX. Specifically, reappraisal moderated the association between attachment anxiety and LMX ($\Delta R^2 = .03$, $F = 4.28$, $p < .05$, $N = 125$), such that subordinates with higher attachment anxiety were more likely to achieve higher quality LMX if they also used reappraisal (hypothesis 7c). This interaction is shown in Table 6 and Figure 4.

Subordinate reappraisal failed to moderate the negative association between subordinate attachment avoidance and LMX (hypothesis 7d; $\Delta R^2 = .03$, $F = 3.26$, $p > .05$, $N = 125$).

Although leaders' use of reappraisal did not moderate the relationship between leader attachment and subordinate-rated LMX, the use of suppression did. The use of suppression by the leader did not have significant direct effects on LMX ($r = .20$, $p > .05$, $N = 63$); however it resulted in higher LMX ratings when the leader possessed higher levels of attachment anxiety ($\Delta R^2 = .07$, $F = 4.67$, $p < .05$, $N = 63$) thereby supporting hypothesis 7e. This interaction is presented in Table 7 and Figure 5.

Hypothesis 7f was also supported as leader suppression had a similar interaction effect on the relation between leader avoidance and LMX ($\Delta R^2 = .06$,

$F = 4.31, p < .05, N = 63$). Table 8 and Figure 6 show the moderation effect of suppression.

4.3.6 *Attachment, Affectivity, and Emotion Regulation, and LMX*

Analyses were conducted to investigate the role of affectivity in the association between attachment, suppression and leader-subordinate relationships. Moderator analysis involving a three-way interaction (Aiken & West, 1991) between negative affectivity, the attachment dimensions, and suppression was conducted. This analysis indicated that the interaction between attachment anxiety, negative affectivity, and suppression predicted LMX quality ($\Delta R^2 = .12, F = 9.71, p < .01, N = 63$). The results support hypothesis 8a and can be found in Table 9 and Figure 7. A visual comparison of the regression lines was used to interpret the interaction. Although Dawson and Richter (2006) recommend a method for testing the slope differences of these regression lines, the data lacked sufficient statistical power to confidently conduct this analysis.

As indicated in Figure 7, for leaders with high levels of attachment anxiety and negative affectivity, subordinate ratings of LMX were higher when these leaders used suppression more. For leaders who used less suppression to regulate their emotions, subordinate ratings of LMX were lower. For leaders with lower negative affect scores, the effects of attachment anxiety on LMX were less pronounced regardless of the extent to which they used suppression. These findings suggest that the interaction between trait negative affectivity and the

negative reactions that leaders experience in response to unmet attachment needs influence their LMX relationships with subordinates. These results also suggest that the potentially destructive combination of negative mood and hyperactivation of the attachment system can be altered if the leader is able to control and regulate the behavioural expression of their affective state.

The moderated regression analysis involving leader attachment avoidance, negative affectivity, and suppression was not significant ($\Delta R^2 = .00$, $F = .03$, $p > .05$, $N = 63$). Support was not found for hypothesis 8b. However as previously found (hypothesis 7), suppression moderated the association between avoidance and LMX. The interaction with negative affectivity does not appear to explain additional variance in LMX, indicating that for avoidant leaders with negative affectivity, the use of suppression does not assist in the development of LMX with subordinates.

In terms of testing the interaction effects of the attachment dimensions with positive affectivity and suppression (hypotheses 8c and 8d) they were significant in both cases. The three-way interaction between attachment anxiety, positive affectivity, and suppression was significant ($\Delta R^2 = .05$, $F = 4.17$, $p < .05$, $N = 63$; Table 10) indicating that there is an interaction between these variables in the development of LMX. Figure 8 indicates that for leaders who have high positive affect and high attachment anxiety, subordinate-rated LMX is likely to be higher if the leader also used higher levels of suppression. Leaders with these individual characteristics who used lower levels of suppression had slightly lower

levels of subordinate rated LMX. Similar to leaders with high levels of negative affectivity, leaders who possess lower positive affectivity appear to be more susceptible to the effects of attachment insecurity when they do not use suppression. Specifically in terms of attachment anxiety, Figure 8 demonstrates that individuals who are low on positive affectivity and high on attachment anxiety have higher LMX ratings from subordinates when they use suppression to regulate their emotions.

These findings suggest that the presence of positive trait affectivity mitigates some of the negative reactions that anxious individuals in leadership positions experience as a result of unmet attachment needs. Furthermore, the use of emotion regulation (in the form of suppression) appears to provide an opportunity for the leaders to prevent their reactions from interfering with the development of LMX with subordinates.

The interaction between positive affectivity, attachment avoidance, and suppression was also significant ($\Delta R^2 = .06$, $F = 5.21$, $p < .05$, $N = 63$). The results provided in Table 11 and Figure 9 indicate that subordinate rated LMX is lower when leaders' have higher attachment avoidance, except when leaders have higher positive affect and lower use of suppression. Although there is a significant interaction effect, the results were not consistent with the expected association, and therefore hypothesis 8d was not supported.

The results associated with hypothesis 8b and 8d led to post-hoc analyses to obtain a better understanding of the interactions between avoidance and

affectivity without considering emotion regulation. These analyses found significant interaction effect for attachment avoidance and negative affectivity in terms of the development of LMX ($\Delta R^2 = .08$, $F = 5.76$, $p < .05$, $N = 63$; Table 12). In this case, subordinates of managers with higher attachment avoidance and negative affectivity developed lower quality LMX (Figure 10). There was also a significant interaction for attachment avoidance and positive affectivity in predicting LMX ($\Delta R^2 = .10$, $F = 7.05$, $p < .05$, $N = 63$; Table 13). Surprisingly, the interaction indicated that avoidant managers with higher positive affect developed lower quality LMX than those with lower positive affect (Figure 11). If the opposite effect for the avoidance/positive affectivity interaction effect was found, it would have supported the idea that, in the case of avoidant leaders, negative affectivity has an additive (and deleterious) effect and positive affectivity might have a buffering effect on LMX development. Instead, these results may indicate that subordinates may perceive their managers' avoidance of emotional connectivity as a lack of authenticity, which in turn may have negative effects on the quality of the relationship as rated by the subordinate. Similar analyses were conducted using subordinate attachment and affectivity; however the interaction effects were not significant.

CHAPTER 5: DISCUSSION

5.1 *General Overview*

The primary purpose of this study was to investigate how individual differences in attachment anxiety and attachment avoidance relate to LMX quality, OCB and CWB. A secondary purpose was to explore how emotion regulation and affectivity may influence the attachment-LMX association. Surprisingly, attachment had no direct effect on either OCB or CWB; however, emotion regulation interacted with individual differences (attachment and affectivity) in their influence on LMX. This suggests that LMX development as influenced by personality differences is more complex than heretofore considered (Phillips & Bedeian, 1994; Liden et al, 1997; Bernerth, Armenakis, Feild, Giles, & Walker, 2007; Harris et al., 2007). More research is required on the role of attachment theory in workplace relationships. Following is an interpretation, synthesis, and discussion of the findings in the current study that contribute most to advancing theory and research. A summary of the study hypotheses is provided in Table 14.

5.2 *Attachment and Emotion Regulation*

The significant interactions among attachment, emotion regulation, and affectivity are noteworthy given the difficulty in detecting interaction effects in field studies. McClelland and Judd (1993) identified that restriction of range and

the clustering of responses in the center rather than the extremes of the distribution can reduce the residual variance of the interaction variable and the likelihood of detecting moderation effects. Moreover, previous research on attachment and leadership (Davidovitz et al., 2007; Popper et al., 2000) has involved individuals in military service. While there is evidence of stress in hospital work (Bournes, 2005; Grinspun, 2003; Raiger, 2005), it is quite likely less stressful than military service (especially those serving in combat situations). These conditions also add to the significance of detecting moderation effects.

5.2.1 Subordinate Attachment and Reappraisal

Subordinates with anxious attachment appear to form better relationships with their leaders when they use reappraisal to regulate their emotions. Those who do not use reappraisal report lower levels of LMX. This finding clearly extends attachment research into the domain of LMX. Persistent proximity seeking and overdependence by subordinates are likely to adversely impact LMX quality. The dependency that accompanies proximity seeking is likely to limit the degree to which leaders delegate to -- and provide role expanding opportunities for -- their followers, thereby thwarting LMX development. Subordinates' use of reappraisal involves either reframing the threats that "trigger" the attachment system or reinterpreting the experiences associated with unmet attachment needs. By regulating negative emotions, subordinates avoid hyperactivation of attachment patterns or experiencing further negative emotions arising from frustrated

attachment needs. Altering their experience of affect in this way, subordinates can prevent their attachment anxieties from interfering in the development of high quality LMX relationships. Research should now examine the specific underlying processes associated with affective experiences. For example, “experience sampling” through repeated brief reporting may assist in capturing “in the moment” accounts (Csikszentmihalyi & Larson, 1987; Beal & Weiss, 2003).

5.2.2 Leader Attachment and Emotion Regulation

An interesting, if unexpected, result from the current study is the positive association between leader reappraisal and subordinate-rated LMX. This direct effect (and the failure of reappraisal to moderate associations between LMX and attachment or affectivity) suggests that reappraisal benefits the relationship leaders develop with their subordinates regardless of their attachment disposition or affectivity. Reappraisal enables leaders to positively reframe their thoughts about a situation and in so doing improve their emotional reaction (Gross, 1998; Gross & John, 2003). Perhaps its influence on LMX development (Dienesch & Liden, 1986) is most salient at the early stages of interaction between dyad partners, influencing the attributions leaders make regarding their subordinates, and their responses to them. As LMX was rated from the followers’ perspective, use of reappraisal by the leader seems to have an outward influence, affecting the quality of relationships between them and their subordinates. Accordingly, while negative emotional states may be detrimental to leader-subordinate relationships,

leaders may be able regulate these emotions to mitigate their negative impact on subordinates.

In addition to the general benefits of reappraisal, leader suppression, a response-focused emotion regulation, may also be beneficial to LMX development. In this case, leaders with higher attachment anxiety and/or avoidance were able to develop higher quality exchanges when they used suppression to regulate negative emotions. Suppression appears to help leaders keep negative emotions from adversely influencing their relationships with their subordinates. Furthermore, the results indicate that anxiety may have a beneficial effect. Perhaps activating leaders' attachment systems inclines them to be more empathic towards their subordinates if they are able to suppress negative emotions. (Shaver, 2009³). This speculation awaits future research. Including a measure of empathy in future research could help. Additionally, avoidance may be particularly destructive in cases where the leader does not use suppression (Shaver, 2009³)

The strength of this finding lies in non-reliance on a common data source. Specifically, LMX ratings were made by the subordinate, and emotional regulation ratings were provided by the leader.

³ The addition of these comment are in response to feedback from Dr. Phillip Shaver, who served as the external examiner of this dissertation.

5.2.3 *Leader Attachment, Affectivity, and Suppression*

The interaction between leader attachment anxiety, suppression, and both negative and positive affectivity predicted subordinate ratings of LMX quality. Leaders with high attachment anxiety garnered higher LMX quality ratings if they reported use of suppression of negative emotions and scored high in positive affectivity or low in negative affectivity. This finding is consistent with theory, as negative trait affectivity predisposes individuals to view the world pessimistically and to experience negative mood states (Watson et al., 1988), which potentiate the perception of threatening environmental cues and triggers the hyperactivation of the attachment system for those high in attachment anxiety. Leaders who are low in trait negative affectivity are much less likely to interpret environmental cues as threatening, thereby avoiding activation of the attachment system. Leaders who are capable of regulating their emotions through suppression can also avoid activating their attachment system; and when it is activated, are likely better able to manage the negative emotions arising from unmet attachment needs.

On the other hand, leaders high in trait positive affectivity are likely to be enthusiastic and energetic, and to perceive experiences in a more positive way (Watson et al., 1988). This disposition keeps feelings of distress at bay, thereby preventing a triggering of their attachment system. Moreover, positive affect is likely to enhance resiliency, enabling the leader to manage the negative emotions arising from frustrated attachment needs. This allows such leaders to develop higher quality relationships with their subordinates by better managing delegation

and the overall role making process. The significance of the interaction is also seen in cases wherein the leader had higher anxiety but low positive affectivity. Where they do not use suppression, the quality of LMX is especially low.

Similar analyses with respect to attachment avoidance resulted in non-significant results, providing further evidence that the two dimensions of attachment operate through separate processes. While the anxious person copes with distress by “hyperactivating” the attachment system, the avoidant individual deactivates it, thus disengaging from negative emotional experiences (Cassidy & Kobak, 1988; Mikulincer & Shaver, 2005). Unlike the anxious person who is susceptible to affective states, deactivation and suppression of negative emotions may dampen the effects of positive and negative affectivity. Post-hoc tests indicated that a combination of both forms of affectivity and avoidance was negatively associated with subordinates’ ratings of LMX. Unlike leader attachment anxiety, which appears to be exacerbated by negative affectivity and mitigated by positive affectivity, subordinates may perceive their avoidant leaders’ affective disengagement as possibly reflecting a lack of consideration or authenticity. Under such circumstances they are likely to experience difficulty developing trust, respect, and a sense of mutual obligation toward the leader, which in turn limits the development of higher quality LMX (Graen & Uhl-Bien, 1995).

5.3 Influence of Attachment Dimensions on LMX Quality and Work Behaviours

Contrary to predictions, the direct links between the attachment dimensions and LMX, OCB, and CWB were not significant. Rather than concluding that there is no association, additional research is required to rule out sampling error, including restriction of range in the criterion variables. Moreover, G*POWER (Faul & Erdfelder, 1992) was employed to conduct a power analysis using conventional estimation values ($\alpha=.05$, power = .80) and small to medium effect sizes ($R^2 = .15$) indicating a required sample size of 43 for the main effects tested. As the analysis of direct effects involved larger samples the non-significant results obtained is unlikely attributable to insufficient statistical power.

A variety of samples should be investigated to assess the generalizability the results obtained here. Unexpectedly, leader avoidance was negatively associated with subordinate-rated CWB. Perhaps avoidant leaders engage in more task-related behaviours than less avoidant leaders to avoid social interaction, thereby role modeling behaviours they desire of subordinates. This, in turn, may discourage their subordinates from engaging in CWB. This finding may be particularly robust given the statistical significance obtained despite the low level of variance in CWB. Certainly, these results underscore the complexities of the relationship between leader dispositions and behaviours and follower outcomes, and underscore the need for future research in this area.

The study aimed to enhance understanding of the differences between self and other ratings of workplace behaviours. Podsakoff and Organ (1994) recommended use of multiple-source ratings whenever possible to avoid common method variance; however few studies have done so (see Judge, Lepine, & Rich, 2006, as an exception). In addition to common method variance, other researchers have cautioned that some counterproductive behaviour (and possibly some citizenship behaviour) are intended to be private acts, and therefore may not be observable to others (Spector & Fox, 2002; Dalal, 2005). Collecting self- and co-worker-ratings of CWB and OCB was intended to compensate for the respective shortcomings. Judge et al. (2006) found that there was a .20 correlation for self- and other-ratings of CWB and a .19 correlation for self- and other-ratings of contextual performance. Correlations of this nature indicate that these ratings are not equivalent. The correlations between self- and other-ratings in this study were even lower, .04 and .12 for CWB and OCB respectively, which in part may be due to differences between reported and observed behaviours, but they are also likely influenced by the restriction of range in these variables. Judge et al. were interested in studying the role of narcissism on self- and other perceptions of leadership and performance behaviours and found that narcissism influenced the difference between self-perceptions and other-reports. Taken together, there is value in assessing both self- and other-reports of work behaviours, particularly when investigating the role of interpersonally relevant aspects of personality (such

as narcissism or attachment), although in this case both ratings of OCB and CWB were not significantly related to attachment.

5.4 *Summary of the Theoretical Contribution*

Taken together, the results of the current study enrich the process model of LMX (Dienesch & Liden, 1986) by incorporating both individual differences in personality traits specific to relationship development (i.e. attachment) and emotion regulation. Further, the results reported here offer an explanation as to why, despite strong theoretical foundations (Dienesch & Liden, 1986), personality traits of leaders and/or their followers' have not shown a consistent pattern of association with LMX quality (Phillips & Bedeian, 1994; Martin, Thomas, Charles, Epitropaki & McNamara, 2005; Bernerth et al., 2007; Harris et al., 2007). This study contributes to the LMX literature by having drawn on attachment theory and research on emotion regulation to help explain LMX development processes.

This study also builds upon the existing literature on attachment and leadership. Keller and Cacioppe (2001) and Quick et al. (1987) theorized that insecure attachment patterns would have adverse effects on the relationship between leaders and followers; however these direct effects were not evident here. These findings do not necessarily contradict the expectations of these researchers, rather they merely suggest that the influence of attachment on the leader-subordinate dyad is more complicated and is influenced by additional factors.

Furthermore, the previous empirical research involving attachment and leadership has focused on attachment as a antecedent of leader emergence (Popper et al., 2004) or leadership style, such as transformational (Popper et al., 2000), socialized charismatic (Popper, 2002), or self-serving and low-task oriented leaders (Davidovitz et al., 2007). The extant literature suggests that secure attachment relates to leader emergence and constructive leadership styles. The current study adds to this earlier research by investigating attachment in the context of LMX and by examining both leader and follower attachment. Past research indicates that effective leaders are more likely to have lower levels of attachment anxiety and avoidance. In contrast, this study found that rather than direct effects, the quality of exchange that develops is the result of the interaction of attachment, affectivity, and emotion regulation. The previous research and the findings of this study suggest that the experience of the leader's style and LMX development are related but distinct processes, which is also consistent with research by Pillai, Scandura, and Williams (1999) that assessed transformational leadership and LMX. Including other measures of leadership (e.g., transformational or socialized leadership) and LMX in future research, along with measures of leader and subordinate attachment, may improve our understanding of the associations between attachment and leadership.

A further contribution of the study to attachment theory occurs by showing its applicability to understanding the development of leader-follower relationships in the context of work. In this sense, it integrates the clinical psychology and

management literatures. It appears that anxious and avoidant individuals respond differently to work stressors, and such responses influence work relationships. The two attachment dimensions (anxiety and avoidance) seemingly operate through different mechanisms with respect to LMX quality. This is best illustrated in the associations among leader attachment, affectivity, and emotion regulation. The anxious individuals' hyperactivating strategies appear to be mitigated by positive affectivity and emotion regulation and exacerbated by negative affectivity. The resulting constructive interactions enable effective management of the transfer of exchange currencies between leader and subordinates, allowing the relationship to mature to higher quality levels.

On the other hand, the association between attachment avoidance and LMX appears to be more complicated. Because avoidance involves disengaging from social exchanges, the effects of avoidance may not be as pronounced in a work relationship as they are in a romantic relationship (which has been the focus of most adult attachment research; Mikulincer & Shaver, 2007). In most cases, the relationship between leader and subordinate is likely to be less emotionally intense than the typical romantic relationship. For this reason, detachment from emotion likely has less of an impact on the development of LMX; whereas the emotionality and dependence associated with attachment anxiety may be more deleterious. Perhaps the greater involvement in work tasks that avoidant individuals use to avoid social interactions (Hardy & Barkham, 1994) results in professional respect or perceptions of greater contributions (i.e. by way of

exchange currency) within the leader-subordinate relationship, while the affect component of LMX development may correspondingly suffer.

The findings of this study are particularly important with respect to the contribution that positive affectivity and emotion regulation appear to have in mitigating factors that could negatively influence relationships between leaders and their subordinates. Recent calls for greater emphasis on positive organizational behaviour (Avey, Luthans, & Mhatre, 2008; Bakker & Schaufeli, 2008; Luthans, 2002a, 2002b; Wright, 2003) have emphasized the promise of turning our attention to positive aspects of organizations and their members as predictors of positive organizational and individual outcomes, in contrast to the greater attention that has been given historically to the focus on reducing or eliminating negative influences. Although I examined *trait* positive affectivity, it is possible to extrapolate that *state* positive affectivity has similar influences in moderating the association between attachment and LMX. As state affectivity is malleable, this potentially provides organizations with the opportunity to facilitate positive affect through positive experiences and in so doing, encourage positive relationships at work. Likewise, emotion regulation strategies can be learned (Cote & Miners, 2006), which suggests that organizations may also be able to encourage (or train) their members to shift from negative to positive emotions, thereby improving relationships at work. Hopeful leaders tend to have more productive and satisfied employees (Peterson & Luthans, 2003). There is also the potential that positive leadership may increase resilience (Harland, Harrison,

Jones, & Reiter-Palmon, 2005) and influence optimism and positive affective experiences (Avolio et al., 2004) thus leading to positive outcomes for the organization.

5.5 *Practical Implications*

Given the preliminary nature of this research, caution should be taken in applying these results to work situations. From a theoretical perspective, attachment influences the quality of relationships that individuals are able to develop. As a result there may be the temptation to use attachment as a selection criterion, particularly for positions that are dependent on the success of interpersonal relationships (e.g., work environments highly dependent on work teams). However, until further research establishes definitive linkages between attachment and performance, I discourage the use of attachment for this purpose.

The result of the study did demonstrate that emotion regulation can play an important role in the development and maintenance of high quality work relationships. Specifically, for subordinates with high attachment anxiety, reappraisal may be particularly advantageous to relationship building. For leaders, reappraisal appears helpful to LMX development regardless of their attachment disposition and anxious and avoidant leaders seem to benefit from suppression. Taken together, the results suggest that emotion regulation strategies help overcome potentially problematic individual characteristics. These results present

an opportunity for intervention either through selection or training and development.

Given the established positive association between LMX and positive individual and organizational work outcomes (Gerstner & Day, 1997), there is value in developing strong LMX relationships. It is likely that leaders and subordinates will develop higher quality LMX relationships if they are able to regulate their emotions. When selecting for positions that require interpersonal skills (such as supervisory or team-based jobs; service jobs), it may be advantageous for firms to look for individuals with the ability to regulate their emotions. There is also evidence that skills in recognizing and regulating emotions can be acquired through experience and learning (Cote & Miners, 2006). Incorporating these strategies into coaching or training and development programs at different levels in the organization is likely to benefit the individual participants, their work units, and the firm. For leaders, learning emotion regulation strategies could be incorporated into leadership development programs and executive coaching.

In addition to considering the preliminary nature of this research, care should also be taken in how educational programs incorporate emotion regulation. Concerns exist that the additional emotional labour involved in regulating emotions can raise stress and lower satisfaction and well-being (Brotheridge & Lee, 2003; Grandey, 2003). Fortunately, research has also shown that job characteristics such as autonomy moderate the negative effects of emotion

regulation (Grandey, Fisk, & Steiner, 2005). While there is some evidence from this study that emotion regulation has benefits for LMX development, further research is required to address the most appropriate application of emotion regulation training in order to avoid unintended consequences.

5.6 *Limitations and Future Directions*

5.6.1 *Limitations*

Despite rigour in the methodological approach taken in this study (collecting data from multiple sources, separation from identifying information and data responses, use of psychometrically sound instruments), the study is not without its limitations.

While the data were collected from a variety of job categories, they were obtained from two organizations within the same industry (healthcare). This condition may have exacerbated context-specific characteristics of these environments. For example, both hospitals are not-for-profit public service employers containing a large proportion of professional staff. Furthermore, typical of most healthcare organizations, participants were predominantly female. Caution must be taken in generalizing the results outside of this context.

The lack of significant direct effects was surprising given the strength of the influence that attachment has on non-work adult relationships (Mikulincer & Shaver, 2007). Although one explanation is that work relationships are less intense and evolve differently than more intimate interpersonal (e.g., romantic)

relationships, some of the non-significant results obtained may have resulted from sample-specific lack of variance in the criterion variables. CWB (measured on a 7-point scale) had a mean of 1.67 (self-rated) and 1.37 (co-worker-rated) and a standard deviation of .60 (self-rated) and .42 (co-worker-rated). Additionally, OCB (also measured using a 7-point scale) had a mean of 5.75 (self-rated) and 5.69 (co-worker-rated) and a standard deviation of .58 (self-rated) and .71 (co-worker-rated).

The restriction of range in the criterion variables is a concern. Without speculating on the cause of these results, it will be important in future studies to reduce measurement error that could arise from social desirability or concerns about confidentiality. This study contained assurances of confidentiality and anonymity; however in the future using coded surveys that do not require collecting names may also further reduce error related to concerns surrounding possible identification. One further limitation relates to non-independence in the data in that in some cases multiple co-workers provided ratings of LMX for the same manager. Non-independence can result in problems with errors in significance testing including an increase in both Type I and Type II errors (Kenny, 1995). In this study some of the managers were used to form more than one dyad (27 managers participated and 63 dyads were derived), meaning that the data points are not completely independent. As a result, there could be an inflation or deflation of effect sizes because of the influence from multiple subordinates rating the same manager. The correlation matrices of the leader data using the 27

managers in one, and the 63 used for data analysis in the other, do indicate some differences in the size of the correlations. Although subordinates are providing ratings of their own unique experience of LMX quality, multiple ratings of the same leader could influence the results. Therefore, the analyses involving manager data should be interpreted with additional caution. Future research should strive to collect data from single leader-subordinate pairs to avoid these concerns.

Finally, issues of confidentiality precluded me from collecting leader-rated LMX. In order to avoid having supervisors know which subordinates participated in the study and provided ratings on them, it was not possible to ask the leader to rate the quality of the relationship with individual subordinates. As a result, only subordinate ratings of LMX were available, and as such, some of the richness that could be afforded by assessing LMX from both perspectives (Scandura & Schriesheim, 1994; Gerstner & Day, 1997) was not obtained.

5.6.2 Future Directions

Recommendations for future research have two objectives: 1) to address the limitations of this study, and 2) to expand the nomological network beyond the current research. Replication of this research is necessary for a number of reasons. First, collecting data from a broader sample will enable greater generalizability of the findings and overcome the concerns about the potential for sample-specific bias in the non-significant direct effects. Second, the replication

should involve independent dyads formed with one leader and one subordinate, thereby addressing concerns of non-independence associated with more than one subordinate reporting to each leader. Third, drawing from samples that would allow for collecting LMX data from the leaders' and the subordinates' perspectives would facilitate greater understanding of differences in leader and subordinate perceptions of LMX (Scandura & Schriesheim, 1994). Collecting LMX ratings from both members of the dyad would also enable examination of the attachment-emotion regulation-LMX experience from both the leaders' and the subordinates' perspective. In the current study, the use of reappraisal and suppression had different effects on the attachment-LMX association for subordinates and leaders. Because emotion regulation is felt but not observed, it would be beneficial to have LMX ratings from both parties to determine if the different effects of emotion regulation are related to the rater's position (i.e., leader or subordinate) or to the effort to regulate emotions (emotional labour). Replicating the study will enable a better understanding of the extent to which the study-specific conditions in the current study influenced the results. Steps are currently in place to replicate the study using the StudyResponse project, a survey remailer service hosted by the School of Information Studies at Syracuse University (StudyResponse, 2005).

In addition to replicating the study, future research should employ longitudinal or repeated measures to explore the development of the leader-subordinate relationship over time. Examining this development may clarify the

exact nature of the association between attachment, emotion regulation, and LMX to determine the effect that altering emotional experiences has on organizational outcomes.

Also potentially fruitful is examining associations between attachment, emotion regulation, and the dimensions of LMX (affect loyalty, perceived contribution, and professional respect). Future research could explore potential differences between the dimensions of LMX, given the propensity for anxiety to result in greater emotional proximity seeking and avoidance to involve efforts to seek emotional distance. From a theoretical perspective, avoidance of emotional experiences should relate negatively to the emotion-laden aspects of LMX (affect and loyalty) but the propensity to use work to avoid social interactions may lead to higher ratings of perceived contribution or professional respect (e.g., role modeling of task focused behaviour). Anxious individuals are likely to assess the different dimensions of LMX more uniformly because their response to thwarted proximity seeking will result in more uniformly negative appraisals.

From a theoretical perspective, attachment provides great potential for understanding individual differences in the workplace. Research should be undertaken to examine the role of these individual characteristics in other aspects of organizational research. One potential area of study involves organizational commitment (Meyer & Allen, 1991), particularly given that affective and normative commitment is influenced by early work experiences and values (Meyer, Irving, & Allen, 1998) and individual differences such as self-efficacy

and locus of control (Meyer, Stanley, Herscovitch, & Topolnysky, 2002). It would be beneficial to understand how one's attachment patterns in relationships at work relate to one's attachment to the workplace. Mikulincer and Shaver (2007) found evidence that attachment anxiety and avoidance are negatively related to organizational commitment. As we have seen in this study, attachment anxiety and avoidance have unique associations with LMX and are also influenced by additional factors. The association between attachment and organizational commitment is likely to be just as complex. For example, anxious individuals are likely to have difficulty developing affective commitment to an organization secondary to the experience of frustration associated with unmet attachment needs. The result of negative experiences arising from interactions with people within the organization may impair the individuals' ability to form a positive commitment to the organization itself. On the other hand, avoidant individuals will try to avoid affective experiences in general, and by extension may inhibit feelings of fondness towards the organization and its members (e.g., affective organizational commitment).

As we saw in this study, emotion regulation moderated the attachment-LMX association, and there are likely a number of factors that could also contribute to the attachment-commitment association. For example, positive experiences in the form of perceived organizational or supervisory support (Rhoades & Eisenberger, 2002) or higher quality LMX could actually meet some of the attachment needs of the anxious individual and thereby mitigate the effect

of anxiety on commitment. Alternatively, avoidant persons might develop greater levels of organizational commitment if they work in an environment that allows them to easily disengage from emotionally-charged interactions. Clearly, there are many promising paths for the study of attachment and emotion regulation in the workplace.

5.7 *Conclusion*

The contribution of this study is that it brings together disparate areas of research, specifically LMX, attachment, affectivity, and emotion regulation. The examination of relationship-specific personality traits, such as attachment, provides a greater understanding of individual differences as they relate to LMX development than broader personality traits (e.g., the Big Five). The research also illustrates the complexity of the association between individual differences (e.g., attachment) and LMX through the presence of other factors (such as affectivity and emotion regulation). The presence of these interaction effects may help to explain some of the challenges that have occurred in using personality to predict LMX. The study also provides some encouraging results, as these interactions suggest that individuals may be able to alter their emotional state to compensate for personality characteristics that might otherwise interfere with their ability to relate to others at work. Finally, the results of this study indicate the potential for attachment theory to assist researchers and practitioners in understanding the nature and quality of interpersonal relationships in organizations.

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APPENDIX A: TABLES

Table 1: Means, Standard Deviations, Correlations, and Reliabilities of Subordinate-Rated Variables

	M	SD	1	2	3	4	5	6	7	8	9
1 Positive Affect	3.58	.63	(.75)								
2 Negative Affect	1.59	.41	-.16	(.80)							
3 Avoidance	3.24	.86	-.14	.17	(.88)						
4 Anxiety	2.71	.86	-.27**	.37**	.19*	(.83)					
5 Reappraisal	5.11	.85	.32**	.07	.03	-.01	(.84)				
6 Suppression	3.29	1.15	-.08	.17	.50**	.04	.16	(.80)			
7 LMX	3.54	.81	.17*	-.21*	-.09	-.09	.13	-.07	(.94)		
8 OCB	5.75	.58	.48**	-.05	-.17	-.15	.25**	-.12	.21*	(.81)	
9 CWB	1.67	.60	-.14	.04	-.10	.10	-.07	-.03	.01	-.33**	(.72)

Listwise deletion $N = 122$ * $p < .05$ ** $p < .01$ *Note: correlation coefficients in Tables 1 to 3 may differ due to the cases included with listwise deletion.*

Table 2: Means, Standard Deviations, Correlations, and Reliabilities of Subordinate-Rated Variables and Co-worker-Rated OCB & CWB

		M	SD	1	2	3	4	5	6	7	8	9	10	11
1	Positive Affect	3.62	.71	(.75)										
2	Negative Affect	1.57	.39	-.01	(.80)									
3	Avoidance	3.17	.80	-.11	.29**	(.88)								
4	Anxiety	2.68	.934	-.25*	.27**	.28**	(.83)							
5	Reappraisal	5.15	.84	.29**	.17	.20	-.03	(.84)						
6	Suppression	3.23	1.16	-.10	.25*	.53**	.07	.30**	(.80)					
7	LMX	3.52	.83	.11	-.14	-.02	.04	.09	-.05	(.94)				
8	Self-rated OCB	5.80	.57	.56**	-.10	-.08	-.09	.26*	-.10	.26*	(.81)			
9	Self-rated CWB	1.70	.61	-.09	-.02	-.07	-.02	-.04	.01	.05	-.33**	(.72)		
10	Co-worker-rated OCB	5.69	.71	.19	.25*	-.10	.10	.24*	.04	-.06	.12	.05	(.90)	
11	Co-worker-rated CWB	1.37	.42	-.01	-.13	-.02	-.13	-.25*	-.01	-.06	-.06	.04	-.59**	(.89)

Listwise deletion $N = 90$ * $p < .05$ ** $p < .01$ *Note: correlation coefficients in Tables 1 to 3 may differ due to the cases included with listwise deletion.*

Table 3: Means, Standard Deviations, Correlations, and Reliabilities of Leader Variables and Subordinate Rated LMX,

OCB, & CWB											
	M	SD	1	2	3	4	5	6	7	8	9
1 Leader Positive Affectivity	3.68	.44	(.86)								
2 Leader Negative Affectivity	1.64	.47	.18	(.88)							
3 Leader Avoidance	3.12	.70	-.53**	.09	(.92)						
4 Leader Anxiety	2.83	.98	-.17	.23	-.15	(.88)					
5 Leader Reappraisal	5.52	.66	-.13	-.44**	-.36**	.16	(.81)				
6 Leader Suppression	3.31	.73	-.34**	-.22	.63**	.21	.17	(.62)			
7 Subordinate Rated LMX	3.54	.80	-.11	-.27*	-.14	.18	.33**	.20	(.94)		
8 Subordinate OCB	5.76	.57	-.10	-.18	.02	.01	.09	.14	.29*	(.81)	
9 Subordinate CWB	1.67	.59	.23	-.12	-.30**	.07	.27*	-.03	.05	-.39**	(.72)

Listwise deletion N = 63

* $p < .05$ ** $p < .01$

Note: the correlation coefficients in Table 1 and Table 2 may differ due to cases included with listwise deletion.

Table 4: Subordinate Demographic Variables, Total Sample and by Hospital

	Mean			Median			SD		
	Total	Hospital A	Hospital B	Total	Hospital A	Hospital B	Total	Hospital A	Hospital B
Age	44.45	45.53	44.07	46.00	47.50	46.00	10.30	10.12	10.38
Hours of work	36.03	36.46	35.88	37.5	37.50	37.50	8.23	8.32	8.33
Tenure at hospital	11.75	12.88	11.35	8.00	8.00	8.00	9.39	10.18	9.12
Tenure in position	9.21	10.18	8.89	6.50	7.00	6.00	8.80	9.55	8.56
Tenure with leader	3.94	3.49	4.09	2.25	2.00	2.50	4.02	4.34	3.91
Gender (% female)	95%	97%	95%						
Education (% higher education)	73%	68%	75%						
N	131	34	97						

Table 5: Leader Demographic Variables, Total Sample and by Hospital

	Total	Mean		Total	Median		Total	SD	
		Hospital A	Hospital B		Hospital A	Hospital B		Hospital A	Hospital B
Age	46.60	47.71	46.17	47.00	48.00	45.50	7.30	4.46	8.22
Hours of work	41.88	42.25	41.75	40.00	42.50	40.00	5.89	3.52	6.58
Tenure at hospital	12.83	14.14	12.32	10.00	15.00	7.00	9.83	6.24	11.03
Tenure in position	8.30	4.71	9.69	5.00	4.00	5.00	9.88	2.86	11.30
Number of Employees	39.33	21.00	46.88	30.50	7.00	45.00	35.49	33.27	35.46
Gender (% female)	76%	57%	83%						
Education (% higher education)	92%	72%	100%						
N	25	7	18						

Table 6: Summary of Hierarchical Regression Analysis for Subordinate Attachment Anxiety, Reappraisal, and LMX.

Variable	B	SE B	β
Step 1			
Subordinate Attachment Anxiety	-.062	.084	.065
Step 2			
Attachment Anxiety	-.061	.085	-.065
Subordinate Reappraisal	.029	.074	.035
Step 3			
Attachment Anxiety	-.065	.084	-.069
Subordinate Reappraisal	.044	.074	.054
Anxiety-Reappraisal Interaction	.167	.080	.185*
($\Delta R^2 = .034$, $F = 4.28$, $p < .05$, $N = 125$)		* $p < .05$	** $p < .01$

Table 7: Summary of Hierarchical Regression Analysis for Leader Attachment Anxiety, Suppression, and LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Anxiety	.141	.101	.175
Step 2			
Leader Attachment Anxiety Attachment Anxiety	.112	.102	.139
Leader Suppression	.195	.138	.179
Step 3			
Leader Attachment Anxiety	.097	.099	.120
Leader Suppression	.251	.136	.231
Anxiety-Suppression Interaction	.303	.140	.265*
($\Delta R^2 = .07$, $F = 4.67$, $p < .05$, $N = 63$)		* $p < .05$	** p

Table 8: Summary of Hierarchical Regression Analysis for Leader Attachment Avoidance, Suppression, and LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Avoidance	.154	.143	.136
Step 2			
Leader Attachment Avoidance	-.501	.171	-.442**
Leader Suppression	.528	.164	.486**
Step 3			
Leader Attachment Avoidance	-.605	.174	-.534**
Leader Suppression	.608	.164	.560**
Anxiety-Suppression Interaction	.493	.237	.248*
$(\Delta R^2 = .06, F = 4.31, p < .05, N = 63)$		* $p < .05$	** p

Table 9: Summary of Hierarchical Regression Analysis for Leader Attachment Anxiety, Negative Affect, Suppression, and Subordinate-Rated LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Anxiety	.141	.101	.175
Step 2			
Leader Attachment Anxiety	.201	.099	.249*
Leader Negative Affectivity	-.555	.206	-.329**
Step 3			
Leader Attachment Anxiety	.180	.103	.224
Leader Negative Affectivity	-.510	.215	-.302*
Leader Suppression	.105	.138	.097
Step 4			
Leader Attachment Anxiety	.174	.104	.217
Leader Negative Affectivity	-.504	.217	-.299*
Leader Suppression	.069	.154	.064
Anxiety x Negative Affect Interaction	-.148	.273	-.075
Step 5			
Leader Attachment Anxiety	.146	.107	.182
Leader Negative Affectivity	-.360	.253	-.214
Leader Suppression	.128	.162	.118
Anxiety x Negative Affect Interaction	-.146	.272	-.073
Anxiety x Suppression Interaction	.180	.164	.157
Step 6			
Leader Attachment Anxiety	.101	.120	.126
Leader Negative Affectivity	-.471	.286	-.279
Leader Suppression	.117	.163	.108
Anxiety x Negative Affect Interaction	-.273	.312	-.137
Anxiety x Suppression Interaction	.226	.173	.197
Negative Affect x Suppression Interaction	-.344	.411	-.161
Step 7			
Leader Attachment Anxiety	.079	.112	.098
Leader Negative Affectivity	.187	.340	.111
Leader Suppression	.101	.152	.093
Anxiety x Negative Affect Interaction	.125	.318	.063
Anxiety x Suppression Interaction	.432	.174	.378*
Negative Affect x Suppression Interaction	.099	.409	.046
Anxiety x Negative Affect x Suppression Interaction	1.329	.426	.512**

Note: $R^2 = .03$ for Step 1; $\Delta R^2 = .10^{**}$ for Step 2; $\Delta R^2 = .01$ for Step 3; $\Delta R^2 = .00$ for Step 4; $\Delta R^2 = .02$ for Step 5; $\Delta R^2 = .01$ for Step 6; $\Delta R^2 = .12^{**}$ for Step 7.

* $p < .05$ ** $p < .01$

Table 10: Summary of Hierarchical Regression Analysis for Leader Attachment Anxiety, Positive Affect, Suppression, and Subordinate-Rated LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Anxiety	.141	.101	.175
Step 2			
Leader Attachment Anxiety	.130	.103	.162
Leader Positive Affectivity	-.145	.232	-.079
Step 3			
Leader Attachment Anxiety	.109	.104	.136
Leader Positive Affectivity	-.049	.243	-.027
Leader Suppression	.186	.146	.171
Step 4			
Leader Attachment Anxiety	.034	.109	.043
Leader Positive Affectivity	-.072	.238	-.039
Leader Suppression	.239	.146	.220
Anxiety x Positive Affect Interaction	.382	.206	.246
Step 5			
Leader Attachment Anxiety	-.038	.103	-.047
Leader Positive Affectivity	.119	.226	.065
Leader Suppression	.412	.143	.380**
Anxiety x Positive Affect Interaction	.675	.208	.436**
Anxiety x Suppression Interaction	.512	.148	.448**
Step 6			
Leader Attachment Anxiety	-.168	.116	-.208
Leader Positive Affectivity	.017	.224	.010
Leader Suppression	.528	.148	.486**
Anxiety x Positive Affect Interaction	1.028	.257	.663**
Anxiety x Suppression Interaction	.467	.145	.408**
Positive Affect x Suppression Interaction	-.851	.387	-.346*
Step 7			
Leader Attachment Anxiety	-.265	.122	-.329*
Leader Positive Affectivity	.365	.276	.200
Leader Suppression	.553	.145	.509**
Anxiety x Positive Affect Interaction	1.116	.254	.721**
Anxiety x Suppression Interaction	.682	.176	.596**
Positive Affect x Suppression Interaction	-1.013	.385	-.412*
Anxiety x Positive Affect x Suppression Interaction	-.713	.350	-.354*
Note: $R^2 = .03$ for Step 1; $\Delta R^2 = .01$ for Step 2; $\Delta R^2 = .03$ for Step 3; $\Delta R^2 = .05$ for Step 4; $\Delta R^2 = .15^{**}$ for Step 5; $\Delta R^2 = .06^*$ for Step 6; $\Delta R^2 = .05^*$ for Step 7.			
* $p < .05$ ** $p < .01$			

Table 11: Summary of Hierarchical Regression Analysis for Leader Attachment Avoidance, Positive Affect, Suppression, and Subordinate-Rated LMX.				
	Variable	B	SE B	β
Step 1				
	Leader Attachment Anxiety	-0.154	0.143	-0.136
Step 2				
	Leader Attachment Anxiety	-0.299	0.165	-0.264
	Leader Positive Affectivity	-0.447	0.265	-0.245
Step 3				
	Leader Attachment Anxiety	-0.645	0.186	-0.569**
	Leader Positive Affectivity	-0.444	0.246	-0.244
	Leader Suppression	0.527	0.161	0.486**
Step 4				
	Leader Attachment Anxiety	-0.728	0.184	-0.643**
	Leader Positive Affectivity	-0.668	0.258	-0.367*
	Leader Suppression	0.463	0.159	0.426**
	Anxiety x Positive Affect Interaction	-0.768	0.343	-0.278*
Step 5				
	Leader Attachment Anxiety	-0.753	0.185	-0.665**
	Leader Positive Affectivity	-0.567	0.273	-0.311*
	Leader Suppression	0.519	0.166	0.478**
	Anxiety x Positive Affect Interaction	-0.647	0.358	-0.235
	Anxiety x Suppression Interaction	0.283	0.248	0.142
Step 6				
	Leader Attachment Anxiety	-1.007	0.221	-0.889**
	Leader Positive Affectivity	-0.670	0.271	-0.368*
	Leader Suppression	0.805	0.216	0.742**
	Anxiety x Positive Affect Interaction	0.099	0.512	0.036
	Anxiety x Suppression Interaction	0.051	0.269	0.026
	Positive Affect x Suppression Interaction	-1.078	0.542	-0.439
Step 7				
	Leader Attachment Anxiety	-1.066	0.215	-0.941**
	Leader Positive Affectivity	-0.026	0.385	-0.014
	Leader Suppression	0.818	0.209	0.753**
	Anxiety x Positive Affect Interaction	0.862	0.597	0.312
	Anxiety x Suppression Interaction	-0.006	0.261	-0.003
	Positive Affect x Suppression Interaction	-1.915	0.639	-0.779**
	Anxiety x Positive Affect x Suppression Interaction	-1.671	0.732	-0.504*
Note: $R^2 = .02$ for Step 1; $\Delta R^2 = .04$ for Step 2; $\Delta R^2 = .14^{**}$ for Step 3; $\Delta R^2 = .06^*$ for Step 4; $\Delta R^2 = .02$ for Step 5; $\Delta R^2 = .05$ for Step 6; $\Delta R^2 = .06^*$ for Step 7.				
* $p < .05$ ** $p < .01$				

Table 12: Summary of Hierarchical Regression Analysis for Leader Attachment Avoidance, Leader Negative Affect, and LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Avoidance	-.154	.143	-.136
Step 2			
Leader Attachment Avoidance	-.128	.139	-.113
Leader Negative Affectivity	-.443	.207	-.263*
Step 3			
Leader Attachment Avoidance	-.170	.135	-.150
Leader Negative Affectivity	-.225	.219	-.133
Leader Avoidance – Negative Affectivity Interaction	-1.003	.418	-.312*
$(\Delta R^2 = .08, F = 5.76, p < .05, N = 63)$		* $p < .05$	** $p < .01$

Table 13: Summary of Hierarchical Regression Analysis for Leader Attachment Avoidance, Leader Positive Affect, and LMX.

Variable	B	SE B	β
Step 1			
Leader Attachment Avoidance	-.154	.143	-.136
Step 2			
Leader Attachment Avoidance	-.299	.165	-.264
Leader Positive Affectivity	-.447	.265	-.245
Step 3			
Leader Attachment Avoidance	-.454	.168	-.400**
Leader Positive Affectivity	-.723	.273	-.397*
Leader Avoidance – Positive Affectivity Interaction	-.950	.358	-.344*
$(\Delta R^2 = .099, F = 7.05, p = .01, N = 63)$		* $p < .05$	** $p < .01$

Table 14: Summary of the Results of the Hypotheses Tests

Supported Hypotheses		
#	Hypothesis	Result
7c	Subordinates' use of reappraisal will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher if a subordinate with attachment anxiety uses reappraisal.	$\Delta R^2 = .03$, $F = 4.28$, $p < .05$, $N = 125$
7e	Leaders' use of suppression will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher for leaders with attachment anxiety if they use suppression.	$\Delta R^2 = .07$, $F = 4.67$, $p < .05$, $N = 63$
7f:	Leaders' use of suppression will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher for leaders with attachment avoidance if they use suppression.	$\Delta R^2 = .06$, $F = 4.31$, $p < .05$, $N = 63$
8a	Leaders' attachment anxiety will be more negatively associated with LMX under conditions of high (as compared to low) leader negative affectivity and low (as compared to high) levels of leader suppression.	$\Delta R^2 = .12$, $F = 9.71$, $p < .01$, $N = 63$
8c	Leaders' attachment anxiety will be less negatively associated with LMX under conditions of high (as compared to low) leader positive affectivity and among leaders who use high (as compared to low) levels of suppression.	$\Delta R^2 = .05$, $F = 4.17$, $p < .05$, $N = 63$
Unsupported Hypotheses		
#	Hypothesis	Result
1a	Leaders' attachment anxiety will correlate negatively with their subordinates' ratings of LMX quality.	$r = .18$, <i>ns</i> , $N = 63$
1b	Leaders' attachment avoidance will correlate negatively with their subordinates ratings of LMX quality.	$r = -.14$, <i>ns</i> , $N = 63$
1c	Subordinates' attachment anxiety will correlate negatively with their ratings of LMX quality.	$r = -.09$, <i>ns</i> , $N = 122$
1d	Subordinates' attachment avoidance will correlate negatively with their ratings of LMX quality.	$r = -.09$, <i>ns</i> , $N = 122$)
1e	Attachment avoidance moderates the negative association between attachment anxiety and LMX, such that this association is stronger when attachment avoidance is high than when it is low.	$\Delta R^2 = .01$, <i>ns</i> , $N = 63$ ($\beta = -.09$)

Table 14: Summary of the Results of the Hypotheses Tests – continued

Unsupported Hypotheses		
#	Hypothesis	Result
2a	Subordinates' attachment anxiety will correlate negatively with their OCB.	$r = -.15$, <i>ns</i> , $N = 122$
2b	Subordinates' attachment avoidance will correlate negatively with their OCB.	$r = -.17$, <i>ns</i> , $N = 122$
3	Subordinates' attachment anxiety will correlate positively with their CWB.	$r = .13$, <i>ns</i> , $N = 122$
4	LMX quality will correlate negatively with subordinates' CWB.	$r = .01$, <i>ns</i> , $N = 128$
7a	Leaders' use of reappraisal will moderate the association between their attachment anxiety and LMX quality, such that LMX will be higher for leaders with attachment anxiety if they use reappraisal.	$\Delta R^2 = .02$, $F = .99$, $\beta = .12$, <i>ns</i> , $N = 63$
7b	Leaders' use of reappraisal will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher for leaders with attachment avoidance if they use reappraisal.	$\Delta R^2 = .01$, $F = .67$, $\beta = .11$, <i>ns</i> , $N = 63$
7d	Subordinates' use of reappraisal will moderate the association between their attachment avoidance and LMX quality, such that LMX will be higher if a subordinate with attachment avoidance uses reappraisal	$\Delta R^2 = .03$, $F = 3.26$, $\beta = .16$, $p < .10$, $N = 125$
8b	Leaders' attachment avoidance will be more negatively associated with LMX under conditions of high (as compared to low) leader negative affectivity and low (as compared to high) levels of leader suppression.	$\Delta R^2 = .08$, $F = 5.76$, $p < .05$, $N = 63$
8d	Leaders' attachment avoidance will be less negatively associated with LMX under conditions of high (as compared to low) leader positive affectivity and among leaders who use high (as compared to low) levels of suppression.	$\Delta R^2 = .06$, $F = 5.21$, $p < .05$, $N = 63$ <i>Interaction not consistent with hypothesis.</i>

Table 14: Summary of the Results of the Hypotheses Tests – continued

Mediation Hypotheses Not Tested		
#	Hypothesis	Result
5a	LMX quality will partially mediate the negative association between subordinates' attachment anxiety and their OCB.	<i>Not tested</i>
5b	LMX quality will partially mediate the negative association between subordinates' attachment avoidance and their OCB.	<i>Not tested</i>
6	LMX quality will partially mediate the positive association between subordinates' attachment anxiety and their CWB.	<i>Not tested</i>

APPENDIX B: FIGURES

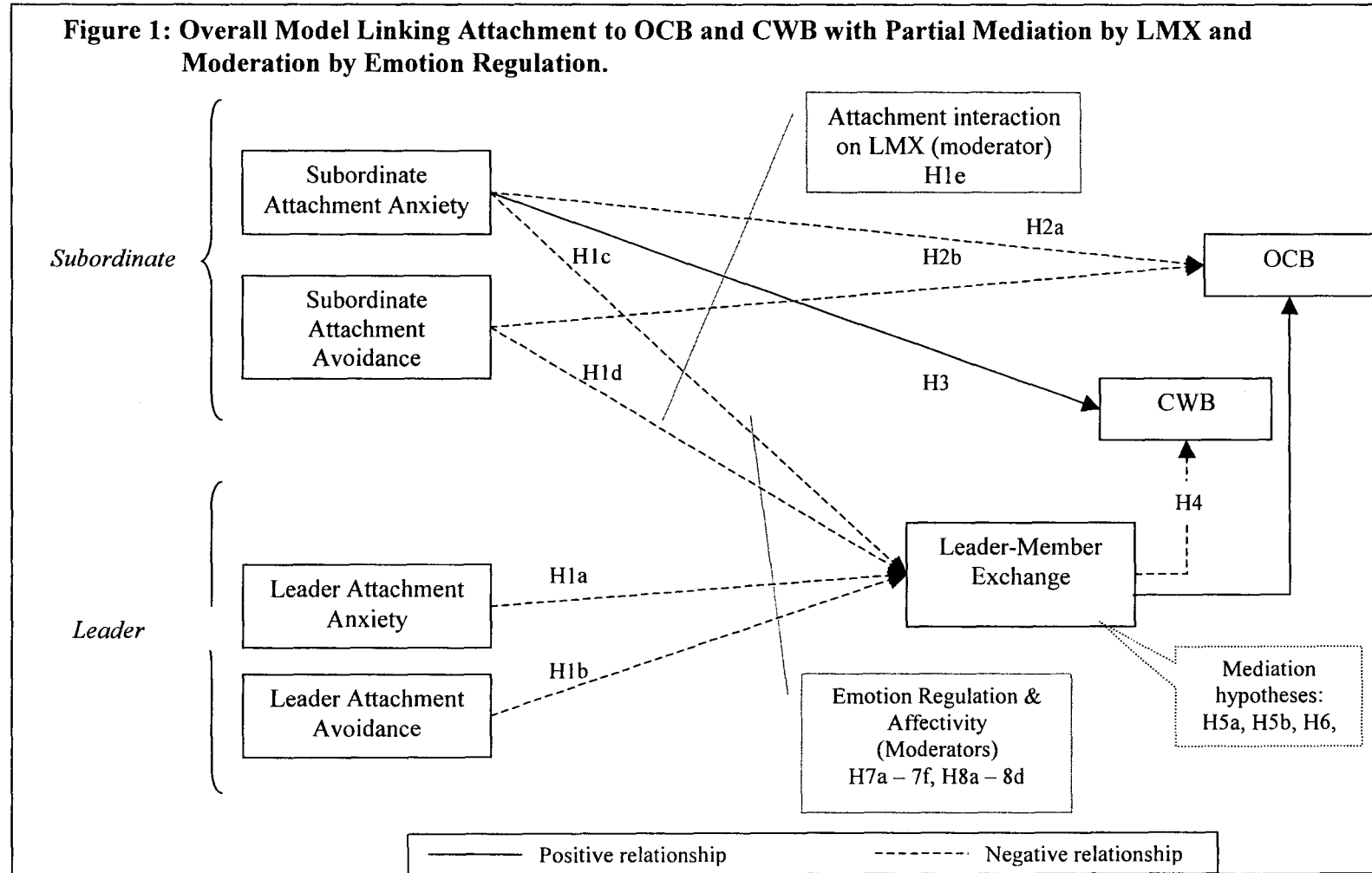
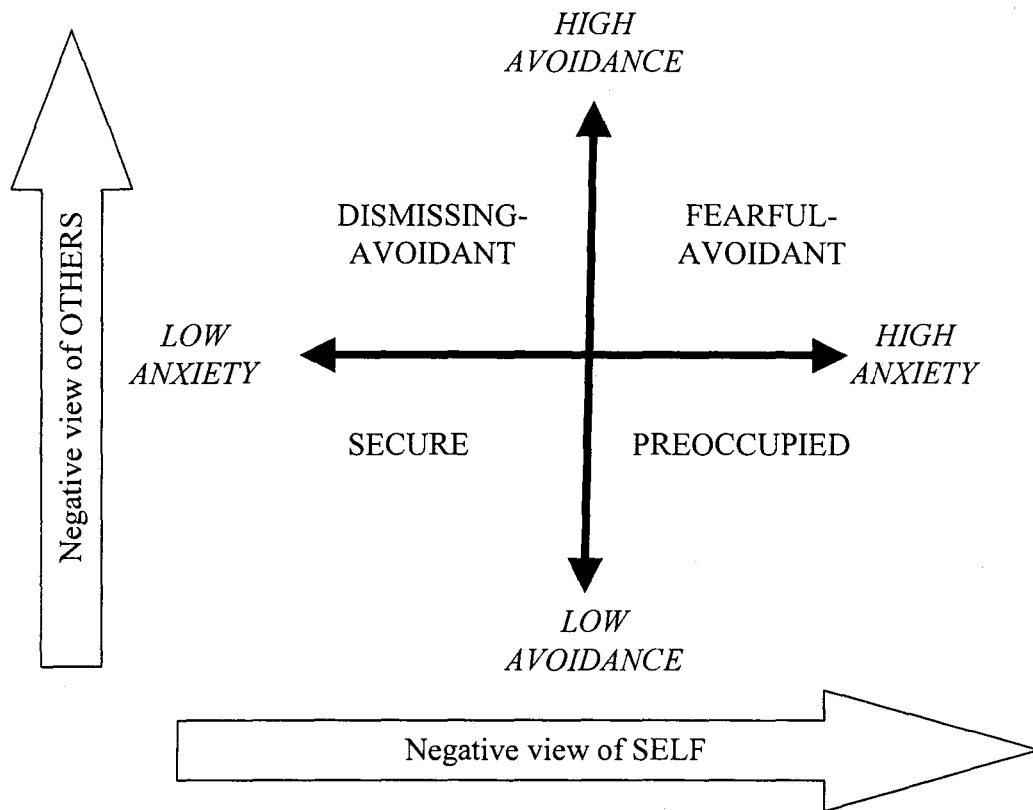


Figure 2: Mapping View of Self, Anxiety/Avoidance Dimensions, and Attachment Styles



Adapted from: Griffin & Bartholomew (1994); Brennan et al. (1998); and Ross, McKim, & DiTommaso, (2006).

Figure 3: Attachment Confirmatory Factor Analysis

$\chi^2 = 1200.10$
 $df = 587$
 $RMSEA = .08$
 $CFI = .74$
 $NFI = .61$

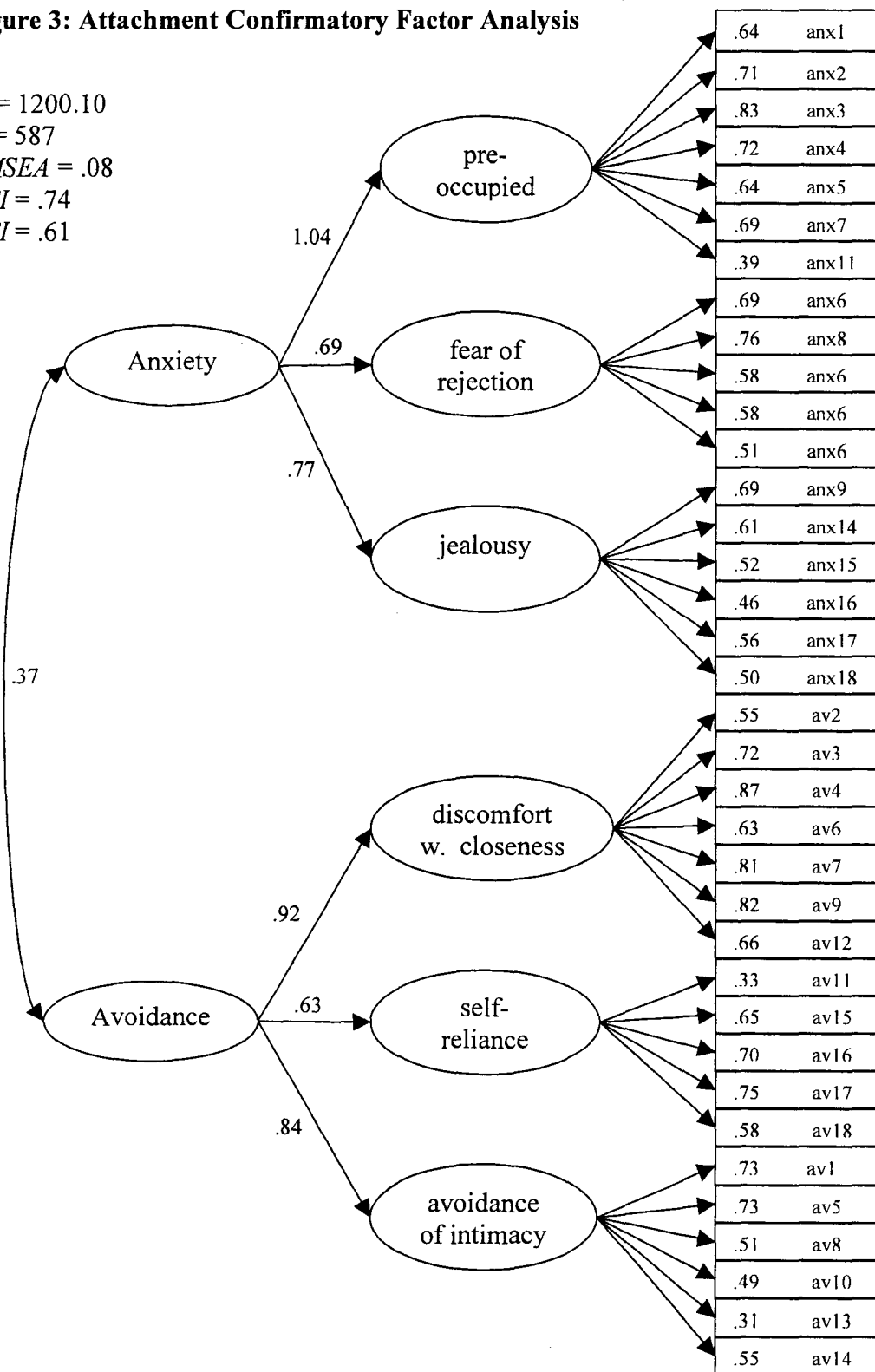


Figure 4: Moderating Effect of Reappraisal on the Association between Subordinate Attachment Anxiety and LMX

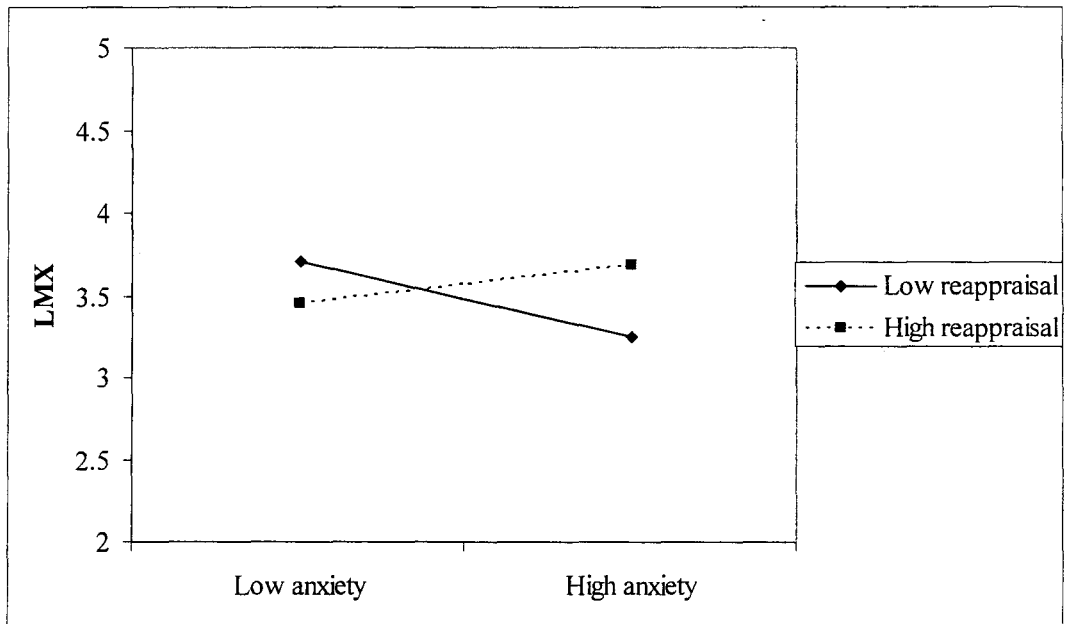


Figure 5: Moderating Effect of Leader Suppression on the Association between Leader Attachment Anxiety and LMX

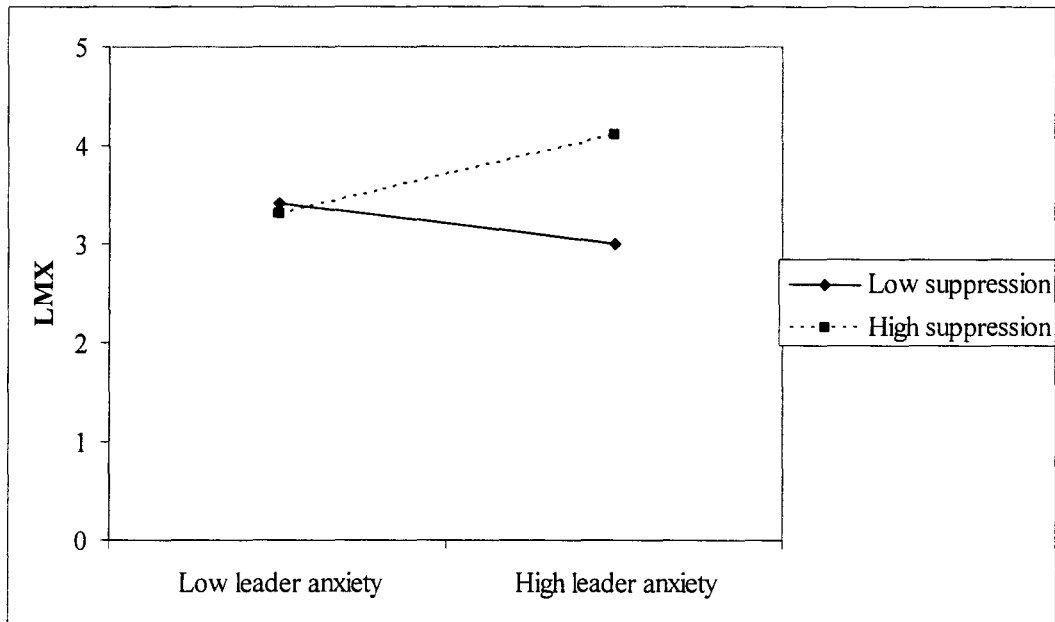


Figure 6: Moderating Effect of Leader Suppression on the Association between Leader Attachment Avoidance and LMX

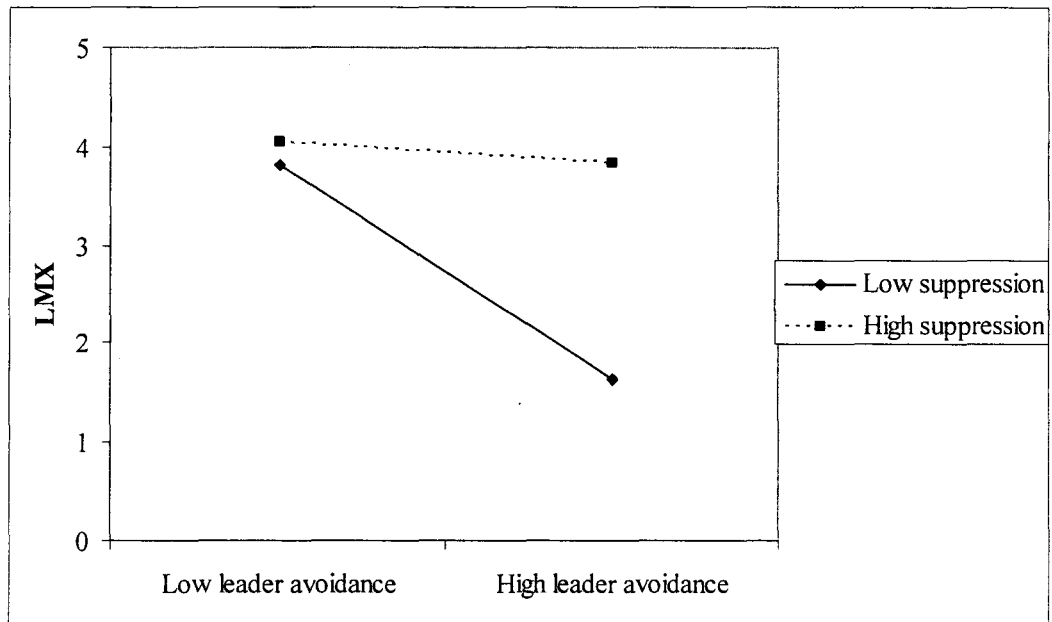


Figure 7: Three-Way Interaction: Leader Attachment Anxiety, Leader Negative Affectivity, and Leader Suppression on Subordinate-Rated LMX.

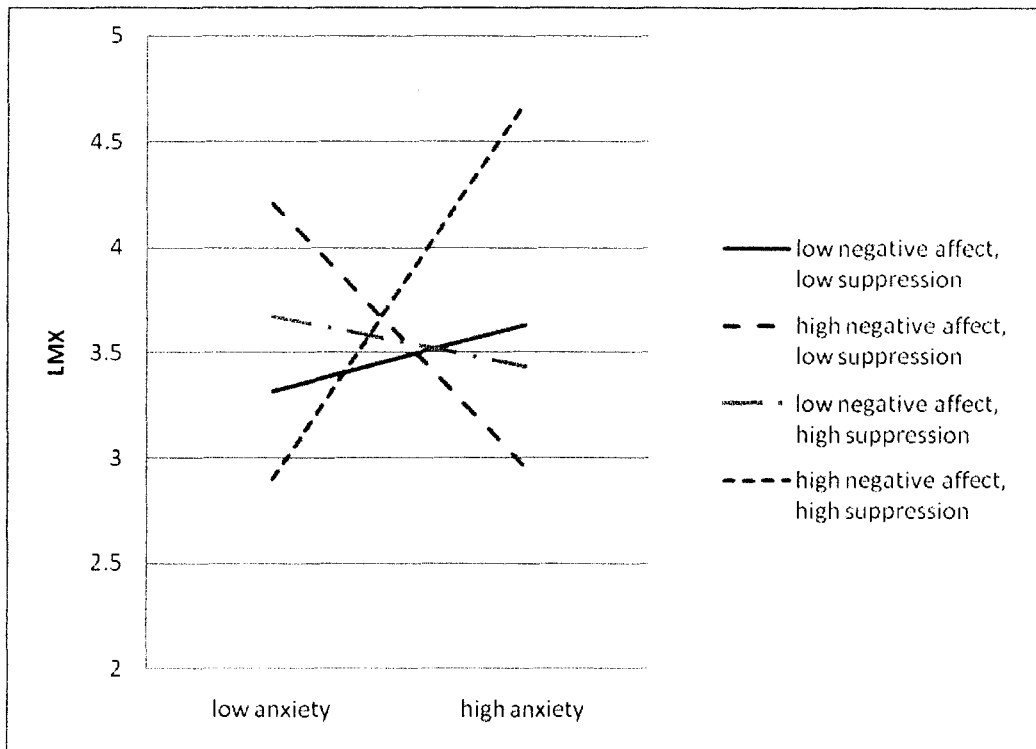


Figure 8: Three-Way Interaction: Leader Attachment Anxiety, Leader Positive Affectivity, and Leader Suppression on Subordinate-Rated LMX.

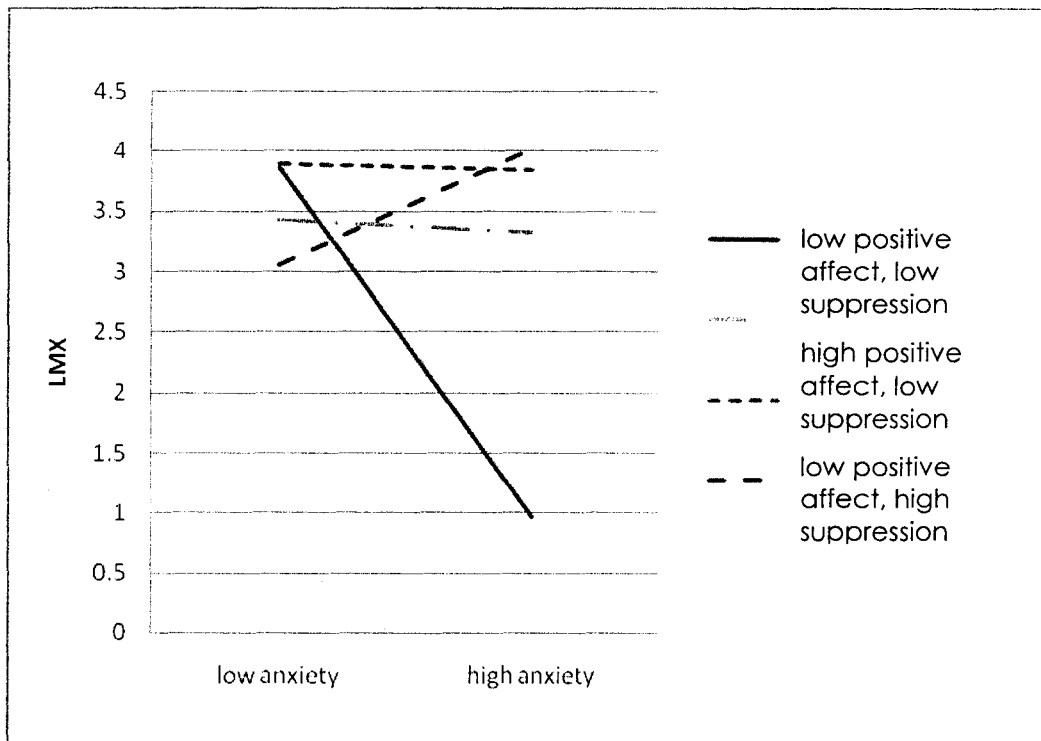


Figure 9: Three-Way Interaction: Leader Attachment Avoidance, Leader Positive Affectivity, and Leader Suppression on Subordinate-Rated LMX.

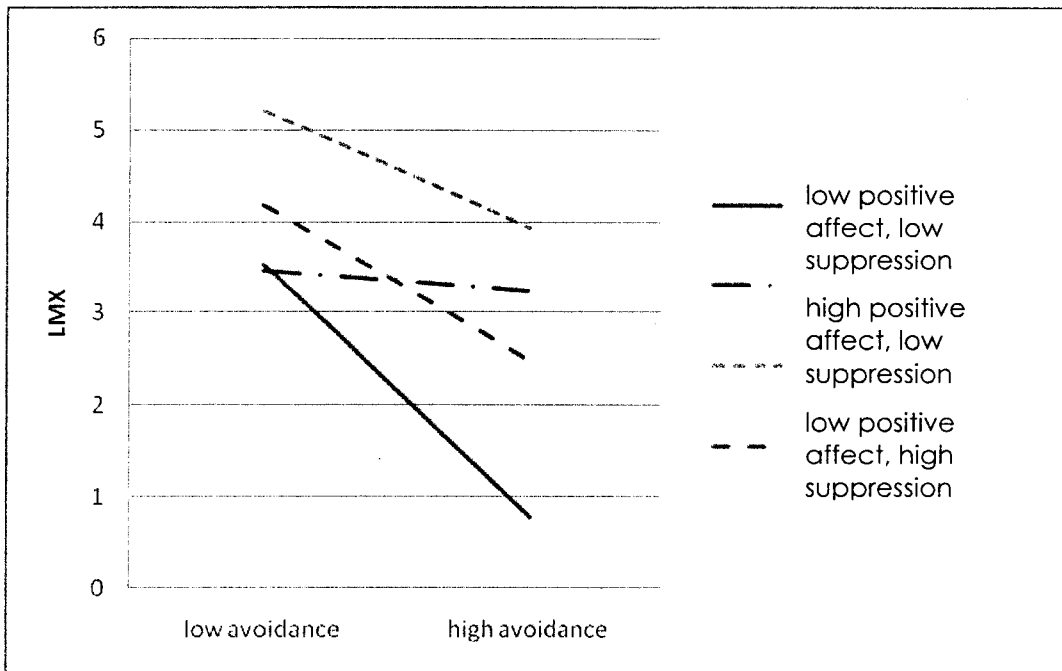


Figure 10: Moderating Effect of Leader Negative Affect on the Association between Leader Attachment Avoidance and LMX

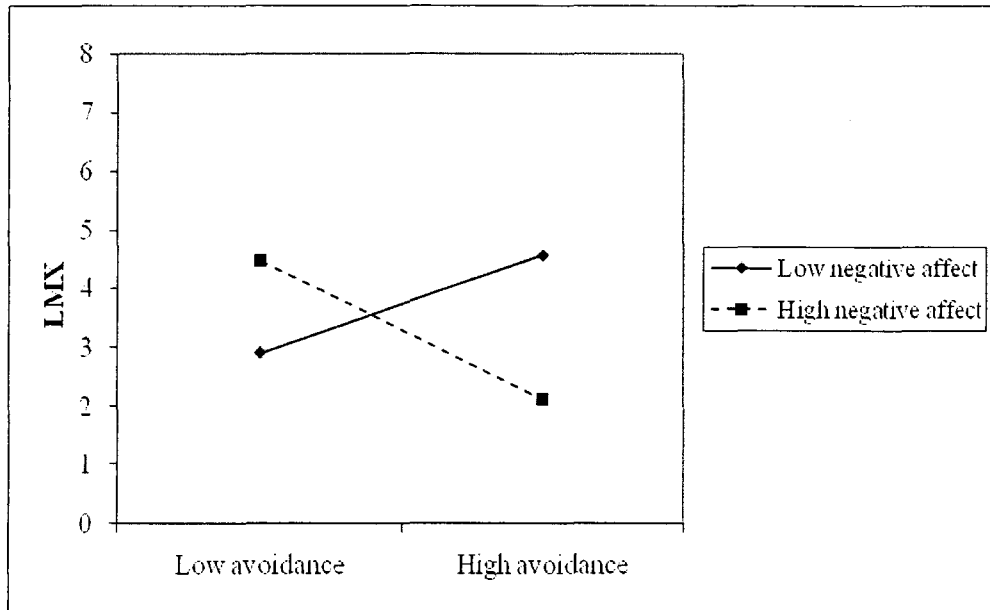
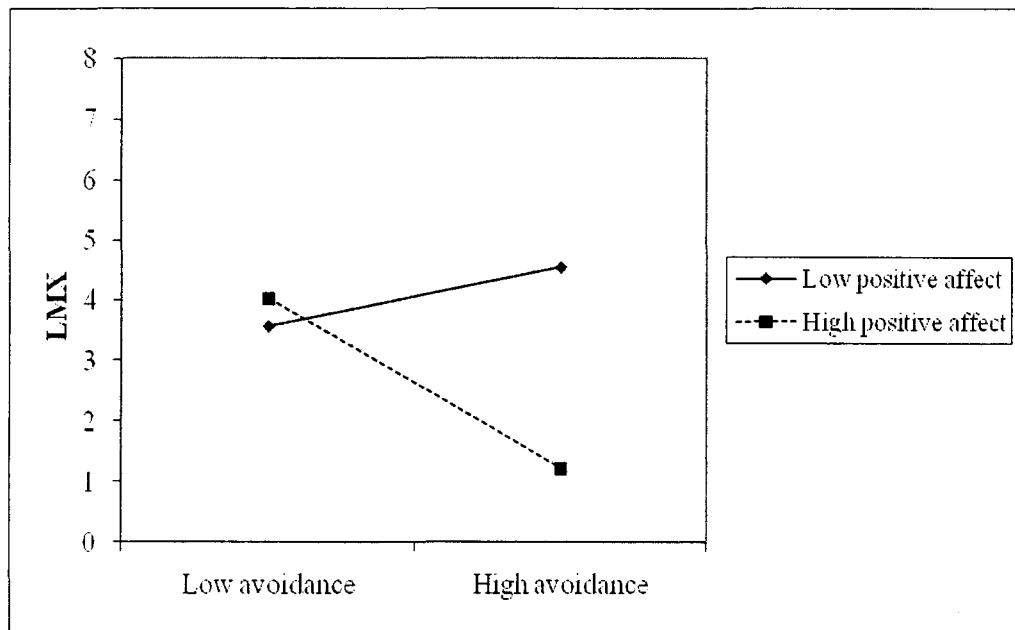


Figure 11: Moderating Effect of Leader Positive Affect on the Association between Leader Attachment Avoidance and LMX



APPENDIX C: SUMMARY OF MEASURES

Participant	Scale	Reference	#Items
Leader	Experience of Relationships Scale	Richards & Schat, 2007	36 items
	Positive and Negative Affectivity (PANAS) *	Watson, Clark, & Tellegen, 1988	20 items
	Emotion Regulation	Gross & John, 2003	10 items
	Demographic information		6 items
	Unit information		2 items
Subordinate	Experience of Relationships Scale	Richards & Schat, 2007	36 items
	Positive and Negative Affectivity (PANAS) *	Watson, Clark, & Tellegen, 1988	20 items
	LMX-MDM	Liden & Maslyn, 1998	12 items
	Emotion Regulation	Gross & John, 2003	9 items
	Organizational Citizenship Behaviour	Podsakoff, MacKenzie, Moorman, & Fetter, 1990	15 items
	Measure of Workplace Deviance (self-report) **	Bennett & Robinson, 2000	10 items
	Demographic information		9 items
Subordinate's Co-Worker	Organizational Citizenship Behaviour	Podsakoff, MacKenzie, Moorman, & Fetter, 1990	15 items
	Measure of Workplace Deviance	Bennett & Robinson, 2000	19 items
	Demographic information		7 items

* Control variable.

** Co-workers completed a 19 item inventory of workplace deviance; the self-report measure included 10 items with the largest factor loadings based on Bennett and Robinson (2000).

APPENDIX D: SURVEY ITEMS

Note: ® = reverse-scored items

Attachment Anxiety

- ANX1. I worry about being abandoned.
- ANX2. I worry a lot about my relationships.
- ANX3. I worry that other people won't care about me as much as I care about them.
- ANX4. I worry a fair amount about losing my connections with others.
- ANX5. I often wish that others' feelings for me were as strong as my feelings for them.
- ANX6. I often want to merge completely with other people, and this sometimes scares them away.
- ANX7. I worry about being alone.
- ANX8. My desire to be very close sometimes scares people away.
- ANX9. I need a lot of reassurance that I am liked and appreciated by other people.
- ANX10. Sometimes I feel that I force others to show more feeling, more commitment.
- ANX11. I do not often worry about being abandoned. ®
- ANX12. If I can't get others to show interest in me, I get upset or angry.
- ANX13. I find that other people don't want to get as close as I would like.
- ANX14. When I'm not connected to people, I feel somewhat anxious and insecure.
- ANX15. I get frustrated when others are not around as much as I would like.
- ANX16. I get frustrated if others are not available when I need them.
- ANX17. When other people disapprove of me, I feel really bad about myself.
- ANX18. I resent it when others spend time away from me.

Attachment Avoidance

- AVOID1. I prefer not to show others how I feel deep down.
- AVOID2. I am very comfortable being close to others. ®
- AVOID3. Just when other people start to get close to me I find myself pulling away.
- AVOID4. I get uncomfortable when others want to be very close.
- AVOID5. I don't feel comfortable opening up to other people.
- AVOID6. I want to get close to others, but I keep pulling back.
- AVOID7. I am nervous when other people get too close to me.
- AVOID8. I feel comfortable sharing my private thoughts and feelings with others. ®
- AVOID9. I try to avoid getting too close to others.
- AVOID10. I find it relatively easy to get close to other people. ®
- AVOID11. I find it difficult to allow myself to depend on others.
- AVOID12. I prefer not to be too close to other people.
- AVOID13. I tell others just about everything. ®
- AVOID14. I usually discuss my problems and concerns with other people. ®
- AVOID15. I feel comfortable depending on others. ®
- AVOID16. I don't mind asking other people for comfort, advice, or help. ®
- AVOID17. It helps to turn to others in times of need. ®
- AVOID18. I turn to other people for many things, including comfort and reassurance. ®

Note: Attachment anxiety and avoidance items are administered in the same scale alternating items from the two dimensions.

Emotion Regulation

Reappraisal

- RAP1. I control my emotions by changing the way I think about the situation I'm in.
- RAP2. When I want to feel less negative emotion, I change the way I'm thinking about the situation.
- RAP3. When I want to feel more positive emotion, I change the way I'm thinking about the situation.
- RAP4. When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
- RAP5. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
- RAP6. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.

Suppression

- SUP1. I control my emotions by not expressing them.
- SUP2. When I am feeling negative emotions, I make sure not to express them.
- SUP3. I keep my emotions to myself.
- SUP4. When I am feeling positive emotions, I am careful not to express them.

Leader-Member-Exchange

- LMXMDM1. I like my manager very much.
- LMXMDM2. My manager is the kind of person one would like to have as a friend.
- LMXMDM3. My manager is a lot of fun to work with.
- LMXMDM4. My manager defends my actions to others, even without complete knowledge of the issue in question.
- LMXMDM5. My manager would come to my defense if I were 'attacked' or criticized by others.
- LMXMDM6. My manager would defend me to others in the organization if I made an honest mistake.
- LMXMDM7. I do work for my manager that goes beyond what is specified in my placement requirements.
- LMXMDM8. I am willing to apply extra efforts, beyond those normally required, to meet my manager's work goals.
- LMXMDM9. I do not mind working my hardest for my manager.
- LMXMDM10. I am impressed with my manager's knowledge of his/her job.
- LMXMDM11. I respect my manager's knowledge of and competence on the job.
- LMXMDM12. I admire my manager's professional skills.

Organizational Citizenship Behaviour

Conscientiousness

- OCB-CN1. Attendance at work is above the norm.
- OCB-CN2. Does not take extra breaks.
- OCB-CN4. Is one of the department's most conscientious employees.

Sportsmanship

- OCB-SP2. Always finds fault with what the organization is doing. ®
- OCB-SP3. Always focuses on what's wrong, rather than the positive side. ®
- OCB-SP4. Consumes a lot of time complaining about trivial matters. ®

Civic Virtue

- OCB-CV1. Attends meetings that are not mandatory, but are considered important.
- OCB-CV2. Keeps abreast of changes in the organization.
- OCB-CV3. Reads and keeps up with organization announcements, memos, and so on.

Courtesy

- OCB-CR1. Considers the impact of his/her actions on co-workers.
- OCB-CR2. Takes steps to try to prevent problems with other employees.
- OCB-CR3. Is mindful of how his/her behaviour affects other people's jobs.

Altruism

- OCB-A1. Helps others who have heavy work loads.
- OCB-A2. Willingly helps others who have work-related problems.
- OCB-A3. Is always ready to lend a helping hand to those around him/her.

Counterproductive Work Behaviour*Interpersonal Deviance*

- CWB-ID1. Made fun of someone at work
- CWB-ID2. Said something hurtful to someone at work
- CWB-ID3. Made an ethnic, religious, or racial remark at work
- CWB-ID4. Cursed at someone at work
- CWB-ID5. Played a mean prank on someone at work
- CWB-ID6. Acted rudely toward someone at work
- CWB-ID7. Publicly embarrassed someone at work

Organizational Deviance

- CWB-OD1. Taken property from work without permission
- CWB-OD2. Spent too much time fantasizing or daydreaming instead of working
- CWB-OD3. Falsified a receipt to get reimbursed for more money than you spent on business expenses
- CWB-OD4. Taken an additional or longer break than is acceptable at your workplace
- CWB-OD5. Come in late to work without permission
- CWB-OD6. Littered your work environment
- CWB-OD7. Neglected to follow your boss's instructions
- CWB-OD8. Intentionally worked slower than you could have worked
- CWB-OD9. Discussed confidential company information with an unauthorized person
- CWB-OD10. Used an illegal drug or consumed alcohol on the job
- CWB-OD11. Put little effort into your work
- CWB-OD12. Dragged out work in order to get overtime

Affectivity*Positive Affectivity*

- PA1 Excited
- PA2 Determined
- PA3 Proud
- PA4 Enthusiastic
- PA5 Inspired
- PA6 Alert
- PA7 Attentive
- PA8 Active
- PA9 Interested
- PA10 Strong

Negative Affectivity

- NA1 Distressed
- NA2 Guilty
- NA3 Nervous
- NA4 Upset
- NA5 Scared
- NA6 Ashamed
- NA7 Afraid
- NA8 Jittery
- NA9 Hostile
- NA10 Irritable