

Abstract

Purpose: This study examines psychological attachment styles (secure, anxious, and avoidant) as antecedents to LMX quality both directly and through their impact on employees' efforts to build high quality LMX relationships. Employees with secure attachment styles are proposed to be successful at building high quality LMX relationships while employees with anxious and avoidant styles are proposed to display the opposite effect.

Design/methodology/approach: Data were collected through a survey of 213 employees nested in 37 work groups. Hypotheses were tested using multilevel modeling within MPlus.

Findings: Results indicated that secure and anxious attachment styles were associated with LMX only by impacting the exertion of effort specifically aimed at relationship development with the manager. Alternatively, the avoidant style was directly and negatively linked to LMX but not associated with effort undertaken to build a high quality relationship.

Practical implications: The effects of attachment style on effort to develop high quality LMX relationships reveal that subordinate attachment style may impact those subordinates' ability and interest in developing positive LMX relationships. Therefore, managers may need to purposively deviate from typical LMX development processes in order to create a more conducive environment for developing high quality relationships with subordinates of differing attachment styles.

Originality/value: This study is one of the first to examine the mediating impact of effort to build high quality LMX relationships given personal propensities (attachment style) to form relationships in the workplace.

Article classification: Research paper

Keywords: Attachment Theory, Leader-member exchange, LMX, Relationship development

Attachment Style and Leader-Member Exchange:
The Role of Effort to Build High Quality Relationships

Introduction

Leader-Member Exchange theory (LMX) theory posits that managers and subordinates develop unique dyadic relationships that, when of high quality, are associated with benefits for managers and subordinates, their work groups, and organizations (Gerstner and Day, 1997; Ilies et al., 2007). While the outcomes of LMX relationships are widely researched, there is less research on the antecedents of LMX (Anand et al., 2011). This may be due in part to an implicit assumption that managers and followers begin their relationship in a “stranger” phase (Graen and Uhl-Bien, 1995), implying that managers and their subordinates start the relationship as blank slates and thus less attention has been focused on characteristics each person brings to the relationship. Because LMX quality is such an important driver of critical employee outcomes, more needs to be known about antecedents and how they result in varying exchange qualities.

A personal attribute that holds great promise for understanding LMX development is psychological attachment styles—the way a person approaches, builds, and maintains relationships (Hazan and Shaver, 1987). These styles are fundamentally relational and ought to affect the development of LMX relationships (Thomas et al., 2013). In this study we examine attachment styles as antecedents of LMX quality. Psychological attachment is crucial for the development and maintenance of relationships generally; yet research directly examining attachment and LMX has been limited (Harms, 2011; Richards and Hackett, 2012). We advance previous research by examining subordinates’ effort invested into relationship development as a mediating mechanism between attachment styles and LMX. We assume that attachment style impacts the effort that individuals put into relationship development (Ainsworth and Bowlby,

1991; Mikulincer and Shaver, 2007). Together, attachment style and effort reflect what Nahrgang et al. (2009) identify as factors that spur initial interaction and subsequent testing process, resulting in different LMX relationships. Further, rather than examining an attachment style that refers to relationships with others in general, we use a work-related attachment approach consistent with arguments that attachment styles can be specific to types of relationships (Overall et al., 2003). Figure 1 summarizes our research model.

Insert Figure 1 about here.

2. LMX development

LMX relationships can vary in quality within work groups so that subordinates of the same manager perceive and experience different LMX qualities (Graen and Uhl-Bien, 1995). High quality LMX relationships are related to positive job attitudes, extra-role behavior, dyadic trust, and increased communication between members while lower quality relationships are characterized by lower levels of interaction, trust, and support (Gerstner and Day, 1997; Ilies et al., 2007). LMX relationships develop through the interaction between managers and their subordinates as they progress through a series of stages labeled stranger, acquaintance, and mature partner (Graen and Uhl-Bien, 1995). Liden and colleagues (Dienesch and Liden, 1986; Liden et al., 1997) describe LMX development as an exchange of “valued currencies” between managers and subordinates in which individuals determine the extent to which a positive or beneficial relationship may develop. These relationships are usually initiated and established in the early stages of interaction between the manager and subordinate (Liden et al., 1993) and the process is driven by the amount of effort put into the relationship. Consistent with the exchange

aspect of the theory, both members must perceive effort exerted toward the relationship for relationship development to proceed (Maslyn and Uhl-Bien, 2001). If one member's offer to build a positive exchange relationship is satisfying to the other, the individuals continue to build a higher-quality relationship. If not, or not reciprocated, relationships will likely remain at lower levels of LMX development (Dienesch and Liden, 1986).

Ferris et al. (2009) identified a four-step process of relationship development: initial interaction, development and expansion of roles, expansion and commitment, and increased interpersonal commitment, each influenced by individual characteristics of the dyad members. Similarly, Nahrgang et al. (2009) studied antecedents of LMX that included variables that affect initial interaction (e.g., personality characteristics) and behavioral influences (e.g., performance-related responses) that follow initial interaction. These researchers support the conclusion that both relationship-relevant personality characteristics and relationship-relevant behavior are key in the process of LMX development.

Empirical study of variables that contribute to LMX development is, however, somewhat limited (Anand et al., 2011). In this study, we pursue the LMX development approaches noted above and examine attachment style, identified by Ferris et al. (2009) and Schyns (2015) as a relational disposition that impacts the initial interactions that lead to different LMX relationship qualities.

3. Attachment style in the Workplace

Attachment style describes the way in which a person generally relates or is able to relate to others on the basis of childhood experiences with caregivers (e.g., Bowlby, 1969/1982). Though developed during childhood, attachment style is believed to influence adult experiences of relationships (Mikulincer and Shaver, 2007). Mostly, attachment style research has focused

on generalized attachment style (the reference group being “others,” e.g., Feeney et al., 1994) or romantic partners (e.g., Hazan and Shaver, 1987). Three types of attachment styles can be differentiated: secure, anxious, and avoidant. The latter two are considered different types of insecure attachment (Ainsworth et al., 1978). A secure attachment style indicates that a person is willing and able to relatively easily build and maintain relationships. In contrast, anxiously attached individuals worry about and are preoccupied with relationships, while avoidant individuals generally find it difficult to be close to others (Ainsworth et al., 1978). Insecure attached individuals have negative views of others (at least in the longer run); anxious individuals because their attachment needs can never be fulfilled and they end up being disappointed, and avoidant individuals because they do not even expect others to fulfill their needs.

While research into attachment style and LMX generally uses an assessment of attachment style to relevant others in general, attachment to specific types of targets (e.g., in this case managers) develops based on experiences later in life (Overall et al., 2003). In line with this thinking, Neustadt et al. (2006, 2011) created a work-related attachment instrument. Here, we use this instrument in order to allow for a better prediction of work-based relationships.

4. Hypotheses

Attachment style has been examined in the context of leadership (e.g. Davidovitz et al., 2007; Kafetsios et al., 2014) because leaders can be regarded like parents by some (Keller and Cacioppe, 2001). For example, Hansbrough (2012) shows that anxiously attached individuals perceive more transformational leadership as they assume that leaders can fulfill their need for attachment lending support to the notion that attachment style influences perceptions of leadership. Davidovitz et al. (2007) proposed that insecure followers would evaluate leadership

negatively as they are more likely to distrust their leaders. Indeed, they found a negative relationship between insecure attachment style and ratings of leadership as well as leadership effectiveness for avoidant individuals. They also found that insecure styles are negatively related to ratings of leaders functioning as a secure base. This supports the notion that both insecure attachment styles are negatively related to follower rated leadership.

LMX is the most relevant approach to leadership with regard to attachment style since it directly describes the quality of the exchange relationship between an individual and a relevant attachment object (here: the manager) and the process by which these relationships develop. In the workplace, secure individuals typically work well with others, viewing themselves positively and others as trustworthy (Mikulincer and Florian, 1998; Mikulincer and Shaver, 2005) and can be expected to be interested in and adept at building high quality relationships with their managers (Ainsworth and Bowlby, 1991). These individuals are likely to signal their openness to the opportunities for relationship development.

In contrast, anxiously attached individuals are likely to refuse offers to engage in LMX relationship development, such as actively taking over delegated tasks, since they do not seek independence but prefer to depend on their managers (Richards and Hackett, 2012). Thus, they might react inappropriately to their leader's effort to build a relationship, ultimately hindering the development of a high quality exchange (and thus confirming their negative views of others) and decreasing the likelihood of building a good LMX relationship with their manager. Richards and Hackett (2012) similarly argue that avoidant individuals do not seek out relationships and thus their LMX quality with their managers should be low. Their results support this assertion.

Consequently, we argue that subordinates who are securely attached will find it easier to build and maintain good relationship qualities with their managers than insecurely attached

subordinates (Richards and Hackett, 2012; Schyns, 2012). In contrast, we expect a negative relationship between insecure attachment styles of attachment and LMX.

H1a. Secure attachment style is positively related to LMX.

H1b. Anxious attachment style is negatively related to LMX.

H1c. Avoidant attachment style is negatively related to LMX.

In this study, we are also interested in mechanisms that link attachment styles with LMX. Accordingly, this study investigates the role of a relationship-relevant subordinate behavior, namely, effort put into the relationship.

Richards and Hackett (2012) use self-verification theory (Swann, 1990) to explain the association between attachment style and LMX. According to self-verification theory, individuals aim to uphold their views of themselves by making others behave towards them in a way that aligns with their views of themselves (Swann et al., 2000). Therefore, because of their positive view of others, securely attached followers should put an appropriate amount of effort into building LMX relationships. This is consistent with Little et al.'s (2011) findings of a significant relationship between secure attachment and vigor at work, a state that “encompasses arousal as well as positive feelings” (p. 467), underlining that secure individuals view others as a positive resource.

Conversely, both anxious and avoidant individuals are less likely to put effort into a relationship, and indeed, anxious individuals might wait for the leader to show initiative and not reciprocate appropriately. In a study of romantic relationships, Feeney et al. (1993) found that avoidant individuals interacted less and with fewer friends than secure individuals, and anxious individuals interacted less with strangers. Mikulincer and Shaver (2007) summarize that avoidant individuals interact less, while anxious individuals show similar levels of interaction as

secure individuals. They also report that anxious and avoidant attachment style is negatively related to responsiveness to partner signals, a key to the development of high quality LMX.

In sum, this research shows that attachment style is related to relationship development-relevant behavior. Based on our review of the literature, we expect that anxious and avoidant attachment styles are negatively related to effort put into relationship development, while secure attachment style is positively related to such effort.

H2a. Secure attachment style is positively related to effort put into LMX relationships.

H2b. Anxious attachment style is negatively related to effort put into LMX relationships.

H2c. Avoidant attachment style is negatively related to effort put into LMX relationships.

We further argue that effort is related LMX quality. This is in line with studies suggesting that higher quality LMX relationships are the result of not only personal qualities or characteristics of the members of a dyad but also the extent of effort that members put into relationships (e.g., Ferris et al., 2009; Nahrgang et al., 2009). Maslyn and Uhl-Bien (2001) directly tested the question of reported effort exerted toward LMX relationship development, showing effort as a key predictor of LMX quality as well as finding it to increase the likelihood of greater future effort into relationship development. We therefore propose:

H3. Subordinate reported effort toward relationship development is positively related to LMX.

Taking together our arguments so far, attachment is expected to act both directly on LMX quality and as an activator of efforts critical in relationship development. Therefore, we propose that effort will mediate the relationship between each attachment style and LMX.

H4a. The relationship between secure attachment style and LMX is mediated by effort put into building the relationship.

H4b. The relationship between anxious attachment style and LMX is mediated by effort put into building the relationship.

H4c. The relationship between avoidant attachment style and LMX is mediated by effort put into building the relationship.

5. Methods

Sample and Procedure

Survey questionnaires were distributed to all 266 employees in a claims processing organization through an on-line survey system via email; 213 (80%) completed the surveys. All employees responded from the standpoint of their subordinate role. Sample characteristics were: 78% female, average 13.8 years full time work experience, 45% with high school diploma or beyond, and modal age of 31-40 years. Respondents were nested within 37 work groups ranging from 1 to 18 persons ($M = 7.23$).

Measures

Participants responded on a 5-point Likert format for measures of secure, anxious, and avoidant attachment style, effort exerted toward relationship development, and LMX.

Psychological Attachment. Neustadt et al.'s (2006) 16-item Adult Attachment in the Workplace (AAW) scale, a workplace-oriented adaptation of Collins and Read's (1990) measure of romantic attachment, was used to measure attachment style. As their items were based on Collins and Read's (1990) measure that differentiates three styles, and recent research by Scrima et al. (2014) that showed a superior fit of a three factor model, we used confirmatory factor analysis on the *a priori* classifications of the items (secure, anxious, avoidant), dropping two items ("Top management is never there when you need them"; "I want to be completely in tune with my supervisor") because of questionable relevance for this sample. The hypothesized three-factor structure (secure, anxious, and avoidant attachment) fit significantly better than a two-factor structure with secure and insecure styles (see Neustadt et al., 2006) and a single factor

structure, suggesting adequate discriminant and convergent validity for the three attachment styles (results available upon request). Coefficients alpha were .65 (secure, 6 items), .78 (anxious, 4 items), and .78 (avoidant, 4 items).

Effort toward relationship development. Based on Maslyn and Uhl-Bien (2001) participants were asked to think about how their relationship with their supervisor has developed and then respond to a question asking “How much effort have you put into developing a good relationship with your supervisor?” with responses ranging from “None” to “A lot.” Although the use of single-item measures can be problematic (see Schriesheim et al., 1991), research on the equivalence of single item measures with multiple item measures of the same construct have shown that one can obtain equally valid ratings from either measure (e.g., Gardner et al., 1998; Tierney and Farmer, 2004; Wanous et al., 1997). Maslyn and Uhl-Bien (2001) addressed the question of equivalence of this single item measure both theoretically and through test-retest and social desirability analysis, supporting its validity.

Leader-member exchange. LMX was assessed with the 12-item LMX-MDM (Liden and Maslyn, 1998), designed to assess follower perceptions of manager-follower relationship quality. The alpha for the 12-item scale was .94.

Control variables. Control variables included in the analysis were span of control, dyadic tenure, and follower’s perceived similarity with their manager. Schyns et al. (2012) found span of control relevant to the relationship between personality characteristics and LMX, and Green et al. (1996) reported a negative relationship between work unit size and LMX. Dyadic tenure was included as it correlates with LMX (Erdogan and Bauer, 2014).

Perceived similarity was included since similarity promotes interaction and reduces barriers between members of the exchange (Liden et al., 1993). Four items were drawn from

Liden et al.'s (1993) study of LMX relationship development to assess perceived similarity (alpha = .89).

6. Results

Descriptives and correlations are reported in Table 1. We conducted confirmatory factor analyses for the five multi-item scales (LMX, perceived similarity, and secure, anxious, and avoidant attachment) comparing the hypothesized five-factor model ($\chi^2 = 373.93$, $df = 199$, $p < .001$, CFI = .90, RMSEA = .07) to a four-factor model collapsing perceived similarity and LMX ($\chi^2 = 452.92$, $df = 203$, $p < .001$, CFI = .86, RMSEA = .08; scaled χ^2 difference with hypothesized model = 61.95, $df = 4$, $p < .01$), and to a single factor model (not estimable due to a not positive definite matrix). This suggests appropriate factor structure and discriminant and convergent validity for the multi-item scales.

Insert Table 1 about here.

Hypothesis Tests

Because our sample consisted of members of 37 work groups, we tested separate simultaneous path models within MPlus 7.11 for within-supervisor and between-supervisor relations (Hoffman and Gavin, 1998). This parses between-group effects to allow an uncontaminated test of our hypotheses at the person-within-group level (Preacher et al., 2010) addressing the possibility that attachment styles may vary across supervisor groups, as well as LMX if dyadic relations across employees with certain supervisors tend to be particularly good or particularly poor. Results for between-supervisor models showed no significant relationships other than for span, which negatively predicted relationship effort for secure and anxious

attachment styles. Results for within-group effects were markedly different. In this case, model estimates ought to be separated to avoid conflation of within-supervisor and between-supervisor effects (Preacher et al., 2010). Accordingly, the model results presented in the text and Table 2 are within-supervisor tests only.

Separate models were run for each attachment style with relationship effort and LMX (see Table 2). For secure attachment, robust fit statistics show $\chi^2 = 33.52$ on 9df, $p < .01$, CFI = .93, RMSEA = .11. This RMSEA shows poor fit in terms of error per model degree of freedom. However, the CFI, which assesses improvement in fit relative to a null model, shows reasonably good fit. The relationship between secure attachment and relationship effort was positive and significant (.50, $p < .01$), supporting *H2a*. As expected, relationship effort positively predicted LMX quality (.17, $p < .01$), supporting *H3*. The direct link between secure attachment and LMX was not significant (.09, $p > .05$), so *H1a* was not supported. However, the indirect link between secure attachment and LMX via relationship effort as a mediator, testing *H4a*, was significant (.09, $p < .05$, CI .01, .17), indicating full mediation.

Insert Table 2 about here.

Overall fit for the anxious attachment model was quite good ($\chi^2 = 14.65$ on 9df, $p > .05$, CFI = .98, RMSEA = .05). *H2b* was supported: anxious attachment was negatively related to relationship effort (-.36, $p < .01$), and relationship effort was positively related to LMX (.19, $p < .01$), supporting *H3*. While there was no direct relationship between anxious attachment and LMX, failing to support *H1b* (-.04, $p > .05$), in testing *H4b* we found a negative, fully mediated relationship via relationship effort (-.07, $p < .05$, CI -.13, -.00).

In estimating the model for avoidant attachment, the dyadic tenure control was dropped as its inclusion caused a non-positive definite first-order derivative product matrix and untrustworthy estimates of standard errors for some model parameters. The CFI and RMSEA values (1.0 and .01, respectively) of the re-estimated model cannot be interpreted as CFI will be 1.0 and RMSEA will be or approach 0 whenever degrees of freedom are greater than or equal to chi-square, which is the case here (or nearly so). However, the chi-square test showed very good fit of the model to the sample covariance matrix ($\chi^2 = 4.17$ on 4df, $p > .05$). Contrary to *H2c*, avoidant attachment was unrelated to relationship effort (.01, $p > .05$). Supporting *H3*, relationship effort was significantly related to LMX quality (.20, $p < .01$). There was no significant mediation (*H4c*; .00, $p > .05$) since avoidant attachment did not predict relationship effort. Instead, there was a negative, direct relationship between avoidant attachment and LMX (-.26, $p < .05$), supporting *H1c*.

We used procedures described by Podsakoff et al. (2003) and Williams and Anderson (1994) to assess whether common method variance resulted in changes in model fit and substantive structural relationships. This approach compared hypothesized mediation models for each style to the same model fitted with an additional method factor as an additional cause of all observed items. Results (available upon request) indicated that adding a method factor significantly improved fit in each case, indicating that method effects are present in the data. Scaled chi-square differences were: for secure attachment, 111.49 (19 df), $p < .01$; for anxious attachment, 137.46 (16 df), $p < .01$; for avoidant attachment, 107.63 (16 df), $p < .01$. However, in each comparison, the pattern of significance of the substantive relationships reported earlier between styles, effort, and LMX was completely unaffected. While method variance is present, it did not affect the significance of the hypothesized relationships.

7. Discussion

As predicted, both secure and anxious attachment styles were related to LMX indirectly through effort put forth toward relationship development. In both cases, follower effort fully mediated the relationship between attachment style and LMX. A secure style was positively associated with effort put forth toward relationship development and ultimately LMX and an anxious style was similarly associated with these variables but in the negative direction. However, our prediction that these attachment styles would also have a direct, unmediated relationship with LMX was not supported. Conversely, we found that an avoidant attachment style had a direct negative relationship with LMX but no effect on effort toward relationship development and thus no mediated effect.

Ainsworth and Bowlby (1991) suggested that those with a secure style are inclined to work well with others and successfully build reciprocal relationships. In light of such qualities, however, a secure attachment style did not by itself impact LMX quality. This is surprising given that managers generally value employees that are successful at self-regulation, a quality associated with secure individuals (Mikulincer et al., 1998). The similar results for the anxious attachment style support the suggestions by Quick et al. (1992) regarding overdependence on managers by anxious subordinates. They argued that such individuals might react inappropriately to attempts to build a high quality relationship. Our findings suggest that overdependence is additionally manifested through a lower level of effort undertaken to build relationships. One explanation for this is that anxiously attached individuals ruminate about their relationships and, in so doing, have little energy left to engage in relationship development (Little et al., 1992). Putting less effort into a relationship can also serve as a self-fulfilling prophecy: As anxious individuals expect that their relationship needs will be frustrated, they

exert less effort in the first place to lower the disappointment they expect. This, however, leads to a lower relationship quality, in line with research showing the importance of effort being perceived by *both* leader and subordinate (Maslyn and Uhl-Bien, 2001).

In this study, an avoidant style was directly associated with lower quality LMX relationships, regardless of effort. Since avoidant individuals find it difficult to be close to others (Ainsworth et al., 1978) and do not generally expect others to fulfill their needs, they are likely to lack the ability to appropriately reciprocate offers that come from the manager. These results are in line with previous research into avoidant attachment style and leadership (e.g., Davidovitz et al., 2007; Richards and Hackett, 2012).

The most interesting result of our study in terms of attachment style is the clear difference in the relationships of the two insecure attachment styles with effort and LMX. Although both these attachment style were associated with lower levels of LMX, the different paths to lower LMX underscore the importance of differentiating between them. Specifically, managers may need to more openly guide relationship development, encouraging anxious followers to put more effort into their relationship with their supervisor to achieve higher LMX quality. Further, managers may need to recognize and allow the relationship development process to unfold more slowly than the few days that has been typically reported in the LMX literature (e.g., Liden et al., 1993). Although this needs further testing, we can assume that since anxious individuals are very interested in relationships they might be eager to learn how to improve relationships with their supervisors and thus be open to relevant suggestions or training/team building exercises.

For avoidant style subordinates, managers may need to initiate relationship development by showing support or other relations-oriented behavior (Mahsud et al., 2009) instead of making the more typical attribution of a subordinate's inappropriate response to an offer of exchange

(like a test of the subordinate, Dienesch and Liden, 1986). Since avoidant individuals naturally avoid relationships and their behavior confirms their negative views of others (i.e., that no good quality relationships develop) managers may need to make extra effort to increase the awareness of avoidant followers of the process and benefits of high quality relationships in general before working on relationship development. Although further research is needed to understand the role of avoidant attachment style in the workplace better, it might ultimately be a consideration to allocate tasks to avoidant individuals that are less reliant on building and maintaining relationships.

Regarding LMX development, the vast majority of such research has evaluated antecedents without testing the mechanisms between those antecedents and LMX. By examining the role of effort specifically it was discovered in this study that for some attachment styles, effort fully mediated the connection between the antecedent and LMX. Given the positive relationship between effort and follower rated LMX quality, leaders can think about encouraging followers to engage in more relationship development effort. Similarly, our findings present a cautionary tale for those employees who expect that it will be sufficient if their bosses will make an effort at relationship development. To help extend understanding the effects of antecedents on eventual relationship quality, future research should consider the inclusion of effort expended toward relationship development.

Overall, our results highlight that LMX is very much a relationship phenomenon (Uhl-Bien et al., 2011). This implies that future research should take into account antecedents of LMX that have been linked to relationship and relationship building such as personality variables of both leaders and followers (e.g., propensity to trust, agreeableness, need for affiliation) but also relationship building variables such as reciprocity norms. Since LMX can also be a management

tool, due to its positive relationship to individual and team outcomes (Gerstner and Day, 1997; Ilies et al., 2007), organizations can be advised, based on our results, to carefully consider the composition of LMX dyads to enhance LMX to improve individual and team outcomes.

Strengths and limitations

Rather than focusing on general attachment style as many previous studies have done, this study used a measure of attachment style specific to the workplace, thus expanding workplace attachment research. Since attachment style is based on experiences, attachment style towards a specific target group might be more malleable. Indeed, some authors point out that secure leaders might be able to change, over the long run, the relationship related behavior of their followers (Davidovitz et al., 2007).

Our study is limited in a few important ways. First, our findings are based on a single organization, potentially limiting the generalizability of the results to other workplaces. Second, our measures, while established in the literature, relied on follower self-report. While self-report, same source data is relevant for assessment of our key personality and perceptual variables, a concern here is that common method variance accounted for some of the significant relationships we report. To some extent, this concern is mitigated by the supplemental analysis finding method variance but does not change the pattern of relationships. Future research could include the manager's perspectives of both LMX and the subordinates' or their own effort toward relationship development. Third, our assessment of effort toward relationship development utilized a single-item measure. While validated in past research (Maslyn and Uhl-Bien, 2001), future research could include separate sample-specific validation. Finally, we have relied on a cross-sectional design to test our ideas, limiting claims of causality. Future tests of our model could utilize a longitudinal design.

In conclusion, this study identifies and differentiates the mechanisms by which attachment style relates to the quality of LMX relationships and provides support for the importance of the exchange and reciprocity aspects as explanatory mechanisms between dyad members' personal characteristics such as attachment style and LMX quality.

References

- Ainsworth, M. D. S., Blehar, M. C., Waters, E. and Wall, S. (1978), *Patterns of Attachment: Assessed in the Strange Situation and at Home*, Erlbaum, Hillsdale, NJ.
- Ainsworth, M. and Bowlby, J. (1991), “An ethological approach to personality development”, *American Psychologist*, Vol. 46 No. 4, pp. 333–341.
- Anand, S., Hu, J., Liden, R. C. and Vidyarthi, P. R. (2011), “Leader-member exchange: recent research findings and prospects for the future”, in Bryman, A., Collinson, D., Grint, K., Jackson, B., and Uhl-Bien. M. (Eds.), *The Sage Handbook of Leadership*, Sage, Thousand Oaks, CA, pp. 311-325.
- Bowlby, J. (1969/1982), *Attachment and Loss*, Basic Books, New York, NY.
- Collins, N.L. and Read, S.J. (1990), “Adult attachment, working models, and relationship quality in dating couples”, *Journal of Personality and Social Psychology*, Vol. 58 No. 4, pp. 644–663.
- Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R. and Popper, M. (2007), “Leaders as Attachment Figures: leaders’ Attachment Orientations Predict Leadership-Related Mental Representations and Followers' Performance and Mental Health”, *Journal of Personality and Social Psychology*, Vol. 93 No. 4, pp. 632–650.
- Dienesch, R. M. and Liden, R. C. (1986), “Leader-member exchange model of leadership: a critique and further development”, *Academy of Management Review*, Vol. 11 No. 3, pp. 618-634.
- Erdogan, B. and Bauer, T. N. (2014), “Leader-member exchange (LMX) theory: the relational approach to leadership”, in Day, D. V. (Ed.), *The Oxford Handbook of Leadership and Organizations*, Oxford University Press, Oxford, England, pp. 407-430.

- Feeney, J. A., Noller, P. and Hanrahan, M. (1994), "Assessing adult attachment", in Sperling, M. and Berman, W. (Eds), *Attachment in Adults: Clinical and Developmental Perspectives*, Guilford Press, New York, NY, pp.128–154.
- Feeney, J.A., Noller, P. and Patty, J. (1993), "Adolescents' interactions with the opposite sex: influence of attachment style and gender", *Journal of Adolescence*, Vol. 16 No. 2, pp. 169-186.
- Ferris, G. R., Liden, R. C., Munyon, T. P., Summers, J. K., Basik, K. J. and Buckley, M. R. (2009), "Relationships at work: toward a multidimensional conceptualization of dyadic work relationships", *Journal of Management*, Vol. 35 No. 6, pp. 1379-1403.
- Gardner, D.G., Cummings, L.L., Dunham, R.B. and Pierce, J.L. (1998), "Single-item versus multiple-item measurement scales: an empirical comparison", *Educational and Psychological Measurement*, Vol. 58 No. 6, pp. 898-915.
- Gerstner, C. R. and Day, D. V. (1997), "Meta-analytic review of leader–member exchange theory: correlates and construct issues", *Journal of Applied Psychology*, Vol. 82 No. 6, pp. 827-844.
- Graen, G. B. and Uhl-Bien, M. (1995), "Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: applying a multi-level multi-domain perspective", *Leadership Quarterly*, Vol. 6 No. 2, pp. 219-247.
- Green, S. G., Anderson, S. E. and Shivers S. L. (1996), "Demographic and organizational influences on leader-member exchange and related work attitudes", *Organizational Behavior and Human Decision Processes*, Vol. 66 No. 2, pp. 203-214.

- Hansbrough, T.K. (2012), "The construction of a transformational leader: follower attachment and leadership perceptions", *Journal of Applied Social Psychology*, Vol. 42 No. 6, pp. 1533-1549.
- Harms, P.D. (2011), "Adult attachment styles in the workplace", *Human Resource Management Review*, Vol. 21 No. 4, pp. 285-296.
- Hazan, C. and Shaver, P. R. (1987), "Romantic love conceptualized as an attachment process", *Journal of Personality and Social Psychology*, Vol. 52 No. 3, pp. 511-524.
- Hoffman, D.A. and Gavin, M.B. (1998), "Centering decisions in Hierarchical Linear Models: theoretical and methodological implications for organizational science", *Journal of Management*, Vol 24 No. 5, pp. 623-641.
- Ilies, R., Nahrgang, J. D. and Morgeson, F. P. (2007), "Leader-member exchange and citizenship behaviors: a meta-analysis", *Journal of Applied Psychology*, Vol. 92 No. 1, pp. 269-277.
- Kafetsios, K., Athanasiadou, M. and Dimou, N. (2014), "Leaders' and Subordinates' Attachment Orientations, Emotion Regulation Capabilities and Affect at Work: a Multilevel Analysis", *Leadership Quarterly*, Vol. 25 No. 3, pp. 512-527.
- Keller, T. and Cacioppe, R. (2001), "Leader-follower attachments: understanding parental images at work", *Leadership & Organizational Development Journal*, Vol. 22 No. 2, pp. 70- 75.
- Liden, R. C. and Maslyn, J. (1998), "Multidimensionality of leader-member exchange: an empirical assessment through scale development", *Journal of Management*, Vol. 24 No. 1, pp. 43-72.
- Liden, R. C., Sparrowe, R. T. and Wayne, S. J. (1997), "Leader-member exchange theory: the past and potential for the future", in Ferris, G. (Ed.), *Research in Personnel and Human*

- Resources Management*, JAI, Greenwich, CT, pp. 47-119.
- Liden, R. C., Wayne, S. J. and Stilwell, D. (1993), "A longitudinal study on the early development of leader-member exchanges", *Journal of Applied Psychology*, Vol. 78 No. 4, pp. 662-674.
- Little, L. M., Nelson, D. L., Wallace, J. C. and Johnson, P. D. (2011), "Integrating attachment style, vigor at work, and extra-role performance", *Journal of Organizational Behavior*, Vol. 32 No. 3, pp. 464-484.
- Mahsud, R., Yukl, G. and Prussia, G. (2009), "Leader empathy, ethical leadership, and relations-oriented behavior as antecedents of leader-member exchange quality", *Journal of Managerial Psychology*, Vol. 25 No. 6, pp. 561-577.
- Maslyn, J. M. and Uhl-Bien, M. (2001), "Leader-member exchange and its dimensions: effects of self-effort and other's effort on relationship quality", *Journal of Applied Psychology*, Vol. 86 No. 4, pp. 697-708.
- Mikulincer, M. and Florian, V. (1998), "The relationship between adult attachment styles and emotional and cognitive reactions to stressful events", in Simpson, J. and Rholes, W. (Eds.), *Attachment Theory and Close Relationships*, Guilford Press, New York, NY, pp. 143-165.
- Mikulincer, M., Orbach, I. and Iavnieli, D. (1998), "Adult attachment style and affect regulation: Strategic variations in subjective self-other similarity", *Journal of Personality and Social Psychology*, Vol. 75 No. 2, pp. 436-448.
- Mikulincer, M. and Shaver, P. R. (2005), "Attachment theory and emotions in close relationships: exploring the attachment-related dynamics of emotional reactions to relational events", *Personal Relationships*, Vol. 12 No. 2, pp. 149-168.

- Mikulincer, M. and Shaver, P. R. (2007), *Attachment in Adulthood: Structure, Dynamics, and Change*, Guilford Press, New York, NY.
- Nahrgang, J. D., Morgeson, F. P. and Ilies, R. (2009), "The development of leader-member exchanges: exploring how personality and performance influence leader and member relationships over time", *Organizational Behavior and Human Decision Processes*, Vol. 108 No. 2, pp. 256-266.
- Neustadt, E., Chamorro-Premuzic, T. and Furnham, A. (2006), "The relationship between personality traits, self-esteem, and attachment at work", *Journal of Individual Differences*, Vol. 27 No. 4, pp. 208-217.
- Neustadt, E., Chamorro-Premuzic, T. and Furnham, A. (2011), "Attachment at work and performance", *Attachment and Human Development*, Vol. 13 No. 5, pp. 471-488.
- Overall, N. C., Fletcher, G. J. O. and Friesen, M. D. (2003), "Mapping the Intimate Relationship Mind: comparisons between Three Models of Attachment Representations", *Personality and Social Psychology Bulletin*, Vol. 29 No. 12, pp. 1479-1493.
- Podsakoff, P.M., MacKenzie, S.B., Podsakoff, N.P. and Lee, J.Y. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Preacher, K. J., Zyphur, M. J. and Zhang, Z. (2010), "A general multilevel SEM framework for assessing multilevel mediation", *Psychological Methods*, Vol. 15 No. 3, pp. 209-233.
- Quick, J.C., Joplin, J.R., Nelson, D.L. and Quick, J.D. (1992), "Behavioral responses to anxiety: Self-reliance, counterdependence, and overdependence", *Anxiety, Stress, and Coping*, Vol. 5 No. 1, pp. 41-53.

- Richards, D. A. and Hackett, R. D. (2012), "Attachment and emotion regulation: compensatory interactions and leader-member exchange", *Leadership Quarterly*, Vol. 23 No. 4, pp. 686-701.
- Schriesheim, C. A., Hinkin, T. R. and Podsakoff, P. M. (1991). Can ipsative and single-item measures produce erroneous results in field studies of French and Raven's (1959) five bases of power? An empirical investigation", *Journal of Applied Psychology*, Vol. 76 No. 1, pp. 106-114.
- Schyns, B. (2012), "The role of distance in leader-member exchange (LMX)", in Bligh, M. and Riggio, R. (Eds.), *Exploring Distance In Leader-Follower Relationships: When Near Is Far And Far Is Near*, Routledge, New York, NY, pp. 136-154.
- Schyns, B. (2015), "Leader and Follower Personality and LMX", in Bauer, T. and Erdogan, B. (Eds.), *Oxford Handbook of Leader-Member Exchange*, Oxford University Press, Oxford, England, pp. 119-135.
- Schyns, B., Maslyn, J. M. and van Veldhoven, M. P. (2012), "Can some leaders have a good relationship with many followers? The role of personality in the relationship between Leader-Member Exchange and span of control", *Leadership & Organization Development Journal*, Vol. 33 No. 6, pp. 594-606.
- Scrima, F., Rioux, L. and Lorito, L. (2014), "Three-factor structure of adult attachment in the workplace: comparison of British, French, and Italian samples", *Psychological Reports*, Vol. 115 No. 2, pp. 627-642.
- Swann, W. B. (1990), "To be adored or to be known? The interplay of self-enhancement and self-verification", in Higgins, E. and Sorrentino, R. (Eds.), *Handbook of Motivation and Cognition: Foundations of Social Behavior*, Guilford Press, New York, NY, pp. 408-448.

- Swann, W.B., Milton, L.P. and Polzer, J.T. (2000), "Should we create a niche or fall in line? Identity negotiation and small group effectiveness", *Journal of Personality and Social Psychology*, Vol. 79 No. 2, pp. 238-250.
- Tierney, P. and Farmer, S.M. (2004). "The Pygmalion process and employee creativity", *Journal of Management*, Vol. 30 No. 3, pp. 413-432.
- Thomas, G., Martin, R., Epitropaki, O., Guillaume, Y. and Lee, A. (2013), "Social cognition in leader–follower relationships: applying insights from relationship science to understanding relationship-based approaches to leadership", *Journal of Organizational Behavior*, Vol. 34 No. 51, pp. 63-81.
- Uhl-Bien, M., Maslyn, J. and Ospina, S. (2011). "The nature of relational leadership: a multi-theoretical lens on leadership relationships and processes", in Day, D. and Antonakis, J. (Eds.), *The Nature of Leadership, 2nd ed.*, Sage, London, pp. 289-330.
- Wanous, J.P., Reichers, A.E. and Hudy, M.J. (1997). "Overall job satisfaction: how good are single-item measures", *Journal of Applied Psychology*, Vol. 82 No. 2, pp. 247-252.
- Williams, L. J. and Anderson, S. E. (1994), "An alternative approach to method effects by using latent-variable models: applications in organizational behavior research", *Journal of Applied Psychology*, Vol. 79 No. 3, pp. 323-331.

Figure 1: Study Model

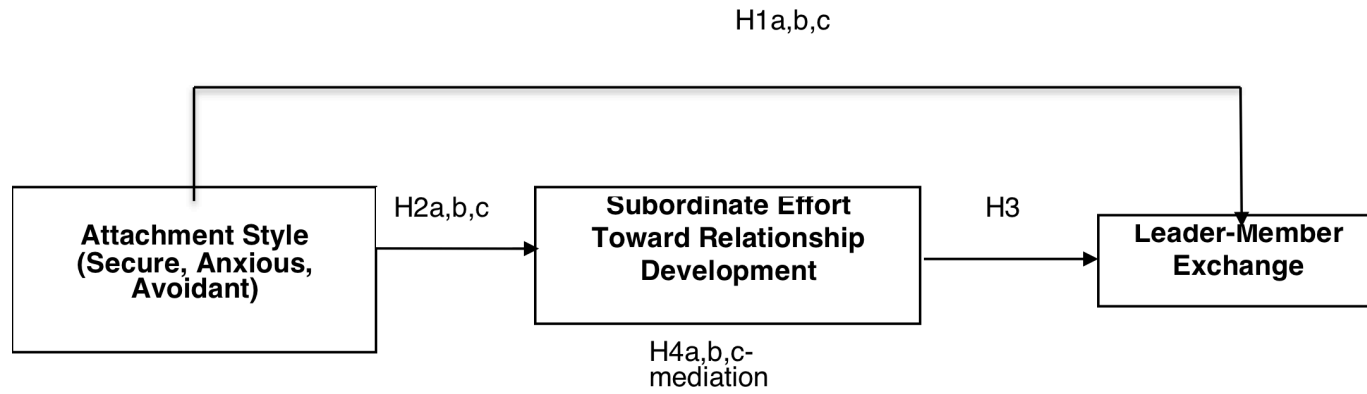


Table 1: Means, Standard Deviations, and Intercorrelations for Individual Level Variables ^a

Variable	<u>M</u>	<u>SD</u>	2	3	4	5	6	7
1. Span of control ^a	10.12	4.48						
2. Tenure with supervisor	12.37	13.01						
3. Perceived similarity	3.39	0.81	.07					
4. Secure attachment	3.73	0.53	.06	.30**				
5. Anxious attachment	2.14	0.64	.03	-.12	-.45**			
6. Avoidant attachment	2.92	0.38	.11	.07	.05	.09		
7. Relationship effort	3.85	0.83	.09	.38**	.43**	-.29**	.04	
8. LMX-MDM	3.96	0.78	.10	.76**	.38**	-.20**	-.09	.49**

Notes. $n = 190$; * $p < .05$, ** $p < .01$. ^a Correlations not reported for span of control as it has between-supervisor variation only.

Table 2: Results of Path Analyses for Secure, Anxious, and Avoidant Attachment

Predictors	Model 1: Secure Attachment		Model 2: Anxious Attachment		Model 3: Avoidant Attachment	
	Relationship Effort	LMX-MDM	Relationship Effort	LMX-MDM	Relationship Effort	LMX-MDM
Tenure with supervisor	.00 (-.01, .01)	.00 (-.01, .01)	.00 (-.01, .01)	.00 (-.00, .01)	^a	^a
Perceived similarity	.20* (.01, .39)	.61** (.48, .73)	.27** (.08, .47)	.62** (.46, .77)	.31** (.12, .49)	.63** (.52, .74)
Secure attachment	.50** (.39, .68)	.09 (-.11, .29)				
Anxious attachment			-.36** (-.58, -.15)	-.04 (-.16, .08)		
Avoidant attachment					.01 (-.58, .59)	-.26* (-.49, -.03)
Relationship effort		.17** (.05, .30)		.19** (.07, .30)		.20** (.09, .31)
Chi-square (df)		33.52 (9)**		14.65 (9)		4.17 (4)
CFI (Comparative Fit Index)		.93		.98		1.0 ^b
RMSEA (Root Mean Square Error of Approximation)		.11		.05		.01

Notes: N = 241 for all models. * p < .05; ** p < .01. Unstandardized coefficients are reported. Confidence intervals are reported in parentheses.

^a Tenure with supervisor was dropped as its inclusion resulted in a non-positive definite first-order derivative product matrix and untrustworthy estimates of standard errors for some model parameters. Accordingly, degrees of freedom for avoidant attachment model differ from the other models.

^b CFI will be 1.0 whenever degrees of freedom are greater than or equal to chi-square.