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Leader-Member Exchange as a Predictor of Leaders' Positive Work Outcomes: A Field Study

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**Leader-Member Exchange as a Predictor of Leaders' Positive Work Outcomes:
A Field Study**

A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Matthew Jason Shaffer
May 2016

DEDICATION

To my grandfather, Henry Baker (aka Pop)

Who taught me to always reach further and try harder

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ABSTRACT

Prior research found that the quality of the working relationships between leaders and their followers, or Leader-Member Exchange (LMX) quality in leader-member dyads, predicts positive work outcomes for followers, including job satisfaction, engagement, and performance. Though leaders might be expected to receive similar benefits from high quality LMX with their followers, almost no published, empirical research to-date has reported benefits of LMX for leaders. The current study tested the relationships of LMX and positive work outcomes for leaders among middle managers and their direct supervisees in a large manufacturing company. Hypotheses predicted that average leader-rated LMX and average follower-rated LMX would positively correlate with three beneficial outcomes for leaders: job satisfaction, engagement, and their own performance as rated by their supervisors, while leader-follower deviance on ratings of LMX would negatively correlate with these three variables. The study used an archival dataset that included questionnaire-based measures of LMX quality and the three work outcomes among 25 middle managers and 84 of their supervisees. The supervisors of the 25 managers (17 senior managers) also provided ratings of the managers' individual performance. All measures were collected the same week; all had good reliability (coefficient alpha ≥ 0.80). Contrary to hypotheses, leader outcomes were unrelated to average leader-rated LMX or average follower-rated LMX. In the only significant finding involving leader outcomes, leader-follower LMX deviance correlated *positively* with leader engagement ($r = .42$ – opposite the hypothesis.) Leaders' LMX ratings were also unexpectedly lower than their followers' ratings of LMX, so leaders' engagement trended higher the further their followers' perceptions of the quality of their relationships exceeded the leaders' own perceptions of LMX. Implications for theory, research, and application of LMX are discussed.

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CHAPTER I
INTRODUCTION

Leader-Member Exchange (LMX), a relationship-based approach to leadership, suggests that a leader's effectiveness depends on the quality of the relationships he or she develops with each of his or her followers (Graen & Uhl-Bien, 1991). Over 40 years of research on LMX have demonstrated the positive outcomes for followers of their leaders establishing high-quality working relationships. A recent meta-analysis by Martin, Guillaume, Thomas, Lee, and Epitropaki (2015) shows a positive relationship between LMX and follower task performance (146 samples, $\rho = .30$). These researchers were able to demonstrate that trust in the leader, motivation, empowerment, and job satisfaction all mediate the relationship between LMX and performance for followers (Martin et al., 2015), highlighting the importance of LMX for a wide variety of positive workplace outcomes. However, as noted in Erdogan and Bauer's (2014) review of LMX, much less is known about the positive outcomes of high-quality relationships for leaders. While it is theorized that leaders benefit from LMX with their followers (Erdogan & Bauer, 2014; Wilson, Sin, & Conlon, 2010), there is little evidence to support this idea.

The primary purpose of the current study is to extend prior LMX research on work outcomes associated with high-quality relationships between leader and follower, which in the past has focused almost exclusively on followers' outcomes (Martin, et al., 2015). In contrast, this study aims to fill a void in current knowledge by examining the potential benefits to leaders of high quality relationships with followers in the form of leaders' work outcomes. Specifically, the current study examined LMX in relation to leaders' job satisfaction, engagement, and performance. The following sections provide a summary of LMX research – including early findings and current state of the art, and develop 9 hypotheses for empirical test in the current study.

LMX Research: Early Findings and Current Knowledge

Early findings: VDL and LMX

Researchers differed on how to measure LMX, but agreed on a conceptual definition based on an early theory called "Vertical Dyad Linkage" (VDL; Dansereau, Graen, & Haga, 1975). Researchers first demonstrated that "...leaders ...develop differentiated relationships with their direct reports" (Graen & Uhl-Bien, 1995, p. 225). The VDL model suggested that a key outcome of leaders' differentiated relationships with followers is development of an "in-group" and an "out-group" among followers in relations with the leader (Dansereau, 1995), in which the "in-group" has comparatively high-quality relationships with their leader. Research found that they subsequently experienced positive outcomes and progress beyond their job descriptions, while members of the "out-group" with low-quality leader-member relationships experienced negative outcomes and lower performance on average (Zalesny & Graen, 1987). High-quality relationships are those characterized by trust, respect, loyalty, liking, intimacy, support, openness, and honesty (Graen & Scandura, 1987).

However, even at the time, the "in-group/out-group" distinction received criticism of being trivial (Mintzberg, 1982), of being explainable within traditional methodologies (Bass, 1985), and of having little empirical support (Nachman, Dansereau, & Naughton, 1983). Indeed, Dansereau (1995), a major proponent of the VDL model, at the time, now admits that, "…I could find virtually no empirical support for [the in-group / out-group distinction]" (p. 484).

Researchers investigated the alternative hypotheses that the quality of differentiated relationships a leader forms with each supervisee represents that leader's effectiveness (Bass, 1985). What followed was decades of research attempting to define, measure, and describe the important antecedents, elements, and outcomes of the relationship between a leader and follower.

Current, empirical research on LMX quality & work outcomes

Outcomes studied in research on LMX have mostly involved job attitudes – especially job satisfaction – and job behaviors. High quality LMX has consistently been found positively related to general job satisfaction, as well as satisfaction with supervisor, pay, and other facets of satisfaction, and negatively related to role ambiguity and role conflict (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). For job behaviors, high-quality LMX has been demonstrated to relate negatively to turnover intentions and actual turnover (Dulebohn, et al., 2012), as well as organizational deviance (Townsend, Phillips, & Elkins, 2000), and relate positively to organizational-citizenship behaviors (OCB), engagement, job performance, and organizational commitment (Dulebohn, et al., 2012), as well as career success (Erdogan & Bauer, 2014).

Job satisfaction

Job satisfaction refers to an individual's subjective evaluation of his or her work role, which includes affective (Cranny, Smith, & Stone, 1992) and cognitive (Brief & Roberson, 1989) components. Some researchers study job satisfaction as a global construct (i.e. general or overall satisfaction), while others investigate specific facets of overall job satisfaction, including: pay, opportunity for promotion, co-workers, supervision, work itself, recognition, working conditions, and others (Judge, Parker, Colbert, Heller, & Ilies, 2001). Meta-analyses and reviews of job satisfaction have shown consistent, positive relationships between job satisfaction and life satisfaction, customer satisfaction, engagement, productivity, safety, and performance, as well as negative relationships between job satisfaction and withdrawal behaviors, including lateness, absenteeism, and turnover (Harter, Schmidt, & Hayes, 2002; Judge, et al., 2001).

Job satisfaction is also one of the most studied outcomes of LMX. In their meta-analysis of 164 studies of LMX, Gerstner and Day (1997) found a strong, positive correlation between

LMX and job satisfaction for followers (p. 835). Furthermore, they demonstrated that LMX is more strongly related to subjective performance ratings, such as job satisfaction, than objective performance ratings, such as productivity or turnover, for followers (Gerstner & Day, 1997). Overall, job satisfaction is widely studied and considered one of the most important constructs throughout Industrial/Organizational research, yielding over 10,000 studies on the topic since 1935. However, in the LMX literature, it is best understood as an outcome of LMX for followers, and little is known about leaders' job satisfaction.

Engagement

Engagement differs from job satisfaction in that it is not really an attitude, but the degree to which an individual is attentive and absorbed in their work role (Rothbard, 2001). It is generally defined as a positive, fulfilling, work-related state of mind (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002) and is viewed as the positive antithesis of burnout (i.e. exhaustion, cynicism, and inefficacy; Maslach, Schaufelli, & Leiter, 2001). Common, empirical antecedents of engagement have included the job characteristics defined by Hackman and Oldham (1980) – skill variety, task identity, task significance, autonomy, and feedback – and more recently: perceived organizational and supervisor support, rewards and recognition, and procedural and distributive justice. Common outcome variables correlated with engagement have included job satisfaction, commitment, organizational citizenship behavior, performance, and safety, as well as lower absenteeism and turnover (Saks, 2006). Lack of engagement has been cited by some as a key factor in lost productivity in the United States, with roughly half of Americans reporting that they are either not fully engaged or they are disengaged in their roles at work (Saks, 2006).

In the LMX literature, engagement has been studied in a number of different ways. Engagement has been used as an antecedent of LMX quality, such that more engaged employees

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report higher quality LMX with their supervisors (Dulebohn, et al., 2012). Similarly, engagement has been used as an outcome of LMX quality, such that employees who report higher quality LMX with their supervisors also report higher engagement and lower burnout (Erdogan & Bauer, 2014). Engagement has been used to mediate the relationship between LMX quality and other consequences of LMX, such as follower turnover intentions (Agarwal, Datta, Blake-Beard, & Bhargava, 2012), and LMX has also been shown to moderate the relationship between job characteristics and engagement, such that the effect of high workload on employee cynicism was weak for employees who perceived a high quality relationship between themselves and their supervisors (Lee, 2011). However, as with job satisfaction, while engagement is understood with respect to followers, there is a lack of research on leader engagement with respect to LMX quality.

Performance

Performance, in general, is the efficiency and effectiveness of action (Neely, Gregory, & Platts, 2005). Individual performance in manufacturing generally breaks down into the dimensions of quality, time, flexibility, and cost (Leong, Snyder, & Ward, 1990). While the literature is quite varied in the measurement of performance and ratings of performance can be obtained from multiple sources, it is most common for supervisors to rate their subordinates on performance variables related to the nature of the work (Viswesvaran, Scmidt, & Ones, 2005). As a metric used to quantify previous action, performance is often treated as an outcome variable (Neely, Gregory, & Platts, 2005). Job performance is best understood as positively related to general mental ability, job knowledge, and personality traits (Scmidt & Hunter, 1992). However, as one of the most important outcomes in Industrial/Organizational research, relationships have been demonstrated between performance and nearly any other variable in the field, including positive relationships with job satisfaction and engagement (Rich, Lepine, & Crawford, 2010).

The relationship between LMX and job performance has yielded somewhat mixed results. Although it is widely accepted that LMX should relate positively to job performance in followers (Erdogan & Bauer, 2014), the correlation between LMX and objective ratings of performance for followers in one meta-analysis was only $r = .10$ (Gerstner & Day, 1997). In their review, Erdogan and Bauer (2014) note that the low correlation may be due to the fact that higher quality LMX between leaders and followers may influence leaders to ask more of their followers, assigning these followers more demanding tasks (p. 417). The correlation between LMX and supervisor-rated performance of followers has been shown to be much higher, at $r = .41$ (Gerstner & Day, 1997), providing evidence for using this type of performance measure when investigating LMX. However, as with the previously mentioned outcome variables, LMX has not been measured with regard to the leader.

LMX Outcomes for Leaders

As discussed above, the basic proposition of LMX comes from VDL and suggests that leaders form differentiated relationships with their direct reports (Graen & Uhl-Bien, 1995), and the quality of these relationships affects the cycles of exchange between the leader and the direct report (Graen & Cashman, 1975; Graen & Scandura, 1987). The quality of the relationship between a leader and follower develops around the dimensions of trust, respect, loyalty, liking, intimacy, support, openness, and honesty (Graen & Scandura, 1987). The cycles of exchange include valued resources that the leader and member offer each other (Graen & Scandura, 1987; Liden, Sparrowe, & Wayne, 1997), which can include money, goods, information, status, service, and affiliation (Wilson, Sin, & Conlon, 2010). LMX generally characterizes cycles of exchange as being initiated by the leader (Graen & Scandura, 1987), such as a leader sending requests or assignments to the member. However, as noted by Wilson, Sin, & Conlon (2010),

consequences of LMX have largely been studied with relation to the follower as opposed to the leader. While it is true that followers tend to be more dependent on leaders than vice versa, mainly due to the power differential between these roles (Snodgrass, Hecht, & Ploutz-Snyder, 1998), the cycles of exchange should include both inputs and outputs for both the leader and follower.

In their theoretical paper, Wilson, Sin, and Conlon (2010) apply Foa and Foa's (1974) resource theory to LMX in an attempt to highlight, based on the constraints of the organizational structure, what each type of resource might look like when provided to the leader by the member, instead of vice versa. They suggest that, while substitution of resources is possible (i.e. a leader receiving information resources, such as the latest update from another work group, in exchange for providing monetary resources, such as pay), it is much more common and likely that individuals exchange the same type of resources (i.e. a leader receiving service resources, such as member effort and performance, in exchange for providing service resources, such as the leader lobbying the department to give the member a preferred work space) (Wilson, Sin, & Conlon, 2010). Further, they suggest that leaders value receiving various types of resources differentially based on the quality of their relationships with their followers. For instance, a leader will value receiving status resources (admiration and respect) and affiliation resources (commitment and loyalty) more from members with which they have a high quality relationship (Wilson, Sin, & Conlon, 2010). While it is theorized that leaders obtain affiliation, status, services, information, goods, and/or money (Wilson, Sin, & Conlon, 2010) from their exchanges with their followers, little research to-date has been designed to test these ideas.

Researchers have noted the lack of research on the benefits (if any) of LMX for leaders (Erdogan & Bauer, 2014; Wilson, et al., 2010), but this gap in understanding of LMX is still apparent. Based on the dyadic-nature of the leader-follower relationship, it seems likely that the

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leader would experience similar job attitude and job behavior outcomes as the follower from high quality LMX, including high job satisfaction, engagement, and performance.

Levels of Analysis in LMX

LMX research, like most organizational research, in general, can involve phenomena that occur at many different levels of analysis. Variables of interest and relationships between those variables might take place at the individual level (within persons), the dyadic level (within relationships), the level of the work group (within groups), or even the departmental or organizational level (within collectives) (Yammarino, Dionne, Chun, & Dansereau, 2005). As such, it is important to clearly specify the level or levels of analysis at which a particular phenomenon is expected to exist (Schriesheim, Castro, & Cogliser, 1999). For LMX research, the level of analysis is most often considered to be the vertical, dyadic relationship between a leader and a follower (Schriesheim, Castro, & Cogliser, 1999), which comes from the roots in VDL (Graen & Cashman, 1975).

However, the vertical, dyadic relationship between leader and follower is not always the level of analysis under investigation in LMX research (Yammarino et al., 2005). In fact, hypothesis testing has occurred at all 4 of the above levels of analysis, with many studies proposing phenomena that occur at multiple levels or even across levels of analysis (Yammarino et al., 2005). While it is theoretically possible for LMX to have relationships with variables outside of the dyadic level of analysis, a major concern for LMX has been the explicit description of the level of analysis under investigation. In their review, Yammarino, Dionne, Chun, & Dansereau (2005) found that even for researchers with studies of LMX published in the highest impact-factor journals, most used measures that were not aligned on the level of analysis at which their major concept was purported to exist, failed to use a multi-level analysis technique

or used a multi-level analytical technique incorrectly, and described theory that was misaligned with the level of analysis on which data was collected. In their review of 137 empirical studies, Schriesheim, Castro, and Cogliser (1999) found that only 10 of these studies provide analytically sound evidence by utilizing appropriate data-analytic techniques for the level(s) of analysis under investigation.

Hypotheses

The current study attempted to investigate LMX quality at the leader level. This study treated leader and follower reports of LMX quality as a variable about the leader, aggregated across followers, and tested their relationships to leader outcomes (job satisfaction, engagement, and performance).

Because LMX refers to dyadic relationships, measures of LMX must be designed to investigate the quality of the relationship between leader and follower from the follower's and leader's individual perspectives (Greguras & Ford, 2006). However, recent reviews and meta-analyses have shown a strong and consistent bias toward the followers' perspective. Hiller, DeChurch, Murase, and Doty (2011) reported that over 83 percent of the LMX literature contains measurement from only the subordinates' perspective. Studies of LMX in which researchers collected both leaders' and followers' ratings of LMX show a correlation of only .37 between those ratings (Sin, Nahrgang, & Morgeson, 2009). Erdogan and Bauer (2014) argue that these studies call for better understanding of the antecedents and consequences of LMX, especially from the leader's perspective. In brief, current research suggested collecting both leader- and follower-rated LMX to assess differential relationships with leader-outcomes.

As discussed above, leaders and followers tend to agree only moderately on their ratings of LMX, which researchers explained by suggesting that leaders are often influenced to report

higher LMX than their followers, due to social desirability bias and the possibility that LMX ratings may represent self-evaluation for leaders (Graen & Scandura, 1987). However the meta-analysis by Sin, Nahrgang, and Morgeson (2009) found low LMX agreement unrelated to the publication status of studies, suggesting that low agreement does not mean low-quality data (p. 1054), and that more research is needed to determine the outcomes of low- vs. high- agreement.

While comparison of scores for agreement can be measured in many different ways, one of the most widely regarded methods for comparing scores is root-mean-square deviation (RMSD) (Barchard, 2012). This is an index of divergence between sets of ratings that is calculated by taking the square root of the mean of the squared deviations between ratings. In the case of LMX, the deviations would be between each leader and follower dyad on their ratings of LMX. Unlike correlations between leaders and followers or simple average difference measures, RMSD is on the same scale as the original data and is also sensitive to values of numbers on the scale, such that even if two response patterns are identical, the RMSD will be high if there are large absolute discrepancies between the two sets of values (Barchard, 2012).

The current study assessed both leader- and follower- rated LMX, allowing assessment of agreement. Initial research in this area suggests that positive outcomes for followers, including engagement, are highest for followers who have high agreement with their leaders on their ratings of LMX, even if both parties agree that LMX quality is low, and these outcomes are lowest in dyads with the most disagreement (Matta, Scott, Koopman & Conlon, in press). Similar positive outcomes should exist for leaders in similar circumstances.

Table 1

Summary of Hypotheses

#	Hypothesis
1a	Leader job satisfaction and average follower-rated LMX are positively related
1b	Leader job satisfaction and average leader-rated LMX are positively related
1c	Leader job satisfaction and average leader-follower LMX deviance are negatively related
2a	Leader engagement and average follower-rated LMX are positively related
2b	Leader engagement and average leader-rated LMX are positively related
2c	Leader engagement and average leader-follower LMX deviance are negatively related
3a	Leader performance and average follower-rated LMX are positively related
3b	Leader performance and average leader-rated LMX are positively related
3c	Leader performance and average leader-follower LMX deviance are negatively related

CHAPTER II
METHODS

Research Design

This archival field study assessed followers' and leaders' perceptions of LMX quality; leaders' job satisfaction; leaders' engagement; and leaders' performance from the perspective of their own supervisors, through a series of questionnaires administered concurrently to middle managers, their direct supervisees, and their direct supervisors at a large manufacturing company in the south-eastern U.S. The questionnaires included a compilation of well-established and validated measures of LMX quality, measured from both leader's and follower's perspectives, in addition to job satisfaction, engagement, and performance. The questionnaires also assessed age, tenure, ethnicity, and gender.

Participants

The population for this study included 25 middle-managers and each of their direct-reports (approximately 3 each) and direct supervisors (1, each) currently working for the same, large, south-eastern manufacturing company. The overall participation was $N = 126$, consisting of leaders (25), their followers (84), and the leaders' managers (17, for performance ratings).

For the 23 of 25 leaders who responded to demographic questions, 91% of the participants were male, and all of the participants were over 31 years of age, with 57% in the 41-50 years range. While there were leaders in each category of tenure in their current position, the largest response-rate occurred in the "15 years or more" category, which accounted for 30% of the participants. In addition, 83% of the leaders in the data set were white.

For followers, of 79 responses out of the 84 in the data set, 84% were male. All followers were over 22 years of age, with the majority in the 41-50 years range at 36%. While followers

were represented in each category of tenure, the largest response-rate occurred at 1-2 years, with 22%. Similar to leaders, 87% of followers were white.

Procedure

For participants, all variables were assessed during working hours at the organization in a meeting room at a company facility. These employees were notified via email of the opportunity participate in the study. Paper copies of the survey were provided to participants, including informed consent forms. Participants had approximately 30 minutes to complete the survey, although it generally took about 15 minutes to complete.

After the data was collected and compiled by the organization, it was released to me as archival data with all personal identifiers removed. The dataset matched followers with their leaders via numerical codes. There was no way to link an ID number back to the actual identity of any individual participant.

Measures

LMX. LMX is generally measured using the LMX-7, a 7-item scale. The response format for this measure is a 5-point Likert scale, where 1 represents the low end (Rarely, Not a Bit, Not at All, None, Strongly Disagree, and Extremely Ineffective) and 5 represents the high end (Very Often, A Great Deal, Fully, Very High, Strongly Agree, and Extremely Effective). A sample item from the scale is: "How would you characterize your working relationship with your leader (follower)?" Cronbach's alpha for the scale has been shown to fall anywhere between $\alpha = .71$ to $\alpha = .90$, with most studies reporting values near the $\alpha = .80$ range (Graen & Uhl-Bien, 1995).

However, upon examination of the scale, several issues presented themselves for the current research. First, both items 1 ("Do you know where you stand with your leader (follower) and do you usually know how satisfied your leader (follower) is with you?") and 2 ("How well

does your leader (follower) understand your job problems and needs?") are double-barreled questions, in that they require respondents to respond on a single scale to more than one question. Furthermore, some of the question wording and response options between the leader- and follower-versions of the instrument were inconsistent. For example, on item 3, leaders were asked to respond to the item "I think I recognize his/her potential" on anchors ranging from "Strongly Disagree" to "Strongly Agree" while followers were asked to respond to the item "How well does your leader recognize your potential?" on anchors ranging from "Not at all" to "Fully."

Since the current study contained hypotheses about both leader- and follower-rated LMX, as well as hypotheses about deviance between leaders and followers on this scale, the LMX-7 was altered in advance to address these issues. Double-barreled questions were each broken into two separate questions, resulting in a LMX-9. Question wording and response options were also adjusted to reflect consistency across the leader- and follower-versions of the questionnaire.

Job Satisfaction. A single item measure was used: a 5-point Likert scale, with options 1-5 representing levels of overall job satisfaction (Very dissatisfied, Somewhat dissatisfied, Neither satisfied nor dissatisfied, Somewhat satisfied, Very satisfied). The item was, "How satisfied are you will your job, overall?" While Cronbach's alpha cannot be computed on a single-item measure, correction for attenuation minimum reliability of single-item job-satisfaction has been shown to fall between $r_{xx} = .73$ and $r_{xx} = .90$, depending on the assumed true, underlying correlation between single-item job satisfaction and multi-item job satisfaction, (Dolbier, et al., 2004). Single-item measures of job satisfaction have also been shown to be the most inclusive of all possible facets of job satisfaction, when compared to measures that use multiple questions and sub-scales to address these facets (Scarpello & Campbell, 1983).

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Engagement. Engagement was measured using the Gallup 12, a 12-item scale. The response format for this measure was a 5-point Likert scale, where 1 represents the low end (Strongly disagree) and 5 represents the high end (Strongly agree) for agreement with the 12 items. A sample item from the scale is: "At work, I have the opportunity to do what I do best every day." Gallup has reported the Cronbach's alpha of this measure at $\alpha = .91$.

Performance. Performance was measured as a supervisor-rating on a 4-item scale. The response format for this measure was a 7-point Likert scale, where 1 represents the low end (Bottom 2%) and 7 represents the high end (Top 2%) for the 7 items. A sample item from the scale is: "How would you rate his/her performance compared to others in the same position?" This measure was included by the organization as one of their ways to determine supervisor-rated performance, and no existing literature has determined the reliability of this scale. Reliability of the scale is reported in the results section of the current paper to address the psychometric properties of this scale.

Variables

LMX. LMX was measured with a 9-item scale, the LMX-9, given to leaders to rate each of their followers and given to each follower to rate their leader. All responses were scored from 1 to 5 with a maximum aggregated average score of 5.0, representing the highest quality LMX, and a minimum aggregated average score of 1.0, representing the lowest quality LMX. Leader outcomes were assessed in comparison to average leader- and average follower-rated LMX, collapsed across followers.

Job Satisfaction. Job satisfaction was measured with the same single-item scale given to leaders and followers. All responses were scored from 1 to 5, with 1 representing the lowest possible job satisfaction and 5 representing the highest possible job satisfaction.

Engagement. Engagement was measured with a 12-item scale, the Gallup 12, given to leaders and followers. All responses were scored from 1 to 5 with a maximum aggregated average score of 5.0, representing the highest possible engagement, and a minimum aggregated average score of 1.0, representing the lowest possible engagement.

Performance. Performance was measured with a 4-item scale, given to supervisors to rate each leader. All responses were scored from 1 to 7 with a maximum aggregated average score of 7.0, representing the highest possible performance, and a minimum aggregated average score of 1.0, representing the lowest possible performance.

Leader-Follower Deviance. Deviance on LMX between leader and follower was generated as a Root Mean Square deviation of LMX-9 items, to represent deviation between leader- and follower-rated LMX, computed separately for each leader-follower pair, then averaged for each leader. Followers' scores were subtracted from their leaders' scores on each LMX item, and the square-root of the average of these squared values was used to create a value between 0.0 and 5.0, where 0.0 represents the most agreement between leader and follower and 5.0 represents the least agreement between leader and follower. Leader outcomes were assessed in comparison to average value of this variable, collapsed across followers. This method avoids the problem of summing difference scores with different signs, like using variance.

CHAPTER III
RESULTS

Data Analysis

Hypotheses were tested using General Linear Regression analysis. Each leader outcome variable (job satisfaction, engagement, and performance) was regressed onto each predictor variable (average follower-rated LMX, average leader-rated LMX, and average deviance between leader and follower on ratings of LMX) in a linear regression.

Scale Reliability

LMX-9. Cronbach's alpha was calculated for the 9 items that made up the LMX-9. While the overall scale demonstrated good reliability with $\alpha = .84$ for leader-rated LMX and $\alpha = .88$ for follower-rated LMX, analyses revealed that the reliability was higher with item 7 (leader version: "I would be willing to 'bail him/her out,' even at my own expense"; follower version: "I think my leader would be willing to 'bail me out,' even at his/her own expense") removed. With item 7 removed, the leader-rated LMX scale demonstrated reliability of $\alpha = .85$ and the follower-rated LMX scale demonstrated reliability of $\alpha = .89$, higher than average for the LMX literature. The steps taken to revise the LMX-7 seem to have improved the reliability of the scale, relative to the existing literature.

Anecdotal evidence from the organization from which these data originated suggests that respondents may have been confused by item 7, and possibly interpreted the phrase "bail out" as "to literally bail another person out of jail," as opposed to the colloquial use "to help another person out of trouble" within the work environment. Future use of this scale might exclude this item, which would result in the LMX-8. All further analyses in the current study were conducted with item 7 omitted.

Engagement. The Gallup-12 measure of engagement showed strong reliability, with Cronbach's alpha of $\alpha = .82$ for all 12 items across all participants. Analyses revealed that the alpha would not be improved by omitting any items, and all 12 items were used in further analyses.

Performance. The 4-item measure of supervisor-rated performance demonstrated strong internal consistency reliability, with Cronbach's alpha of $\alpha = .93$ for the 4 items for leaders. However, analyses revealed that the alpha was improved by the omission of item 2 ("How would you rate his/her ability to get along with others?"). With this item removed, the reliability of the scale was $\alpha = .95$. All further analyses in the current study were conducted with item 2 omitted.

Descriptive Statistics

Table 2 displays the number of cases (N), mean, standard deviation, and minimum and maximum values for all variables in the study. The descriptive statistics are broken down by leader outcome variables, leader predictor variables, follower outcome variables, and follower predictor variables. Leader performance was the only variable rated on a 1-7 scale, which accounts for it having the highest mean, minimum, and maximum values. As can be seen in Table 2, LMX was rated very highly in general, with averages on these variables ranging from 3.86 to 4.03 on a scale with maximum value of 5.0. Deviance between leaders and followers was also fairly low. Variability on these measures was somewhat low for leaders, and somewhat higher for followers, though this is to be expected given that there were approximately 3 followers for each leader in the data set.

Table 2

Study Variables: Descriptive Statistics for Leaders and Followers

Leader Outcomes	N	Mean	SD	Min	Max
Job Satisfaction	25	3.84	0.90	2.00	5.00
Engagement	25	3.81	0.46	3.00	4.75
Performance	17	5.53	0.99	4.00	7.00
Leader Predictors					
Mean Follower LMX	25	4.03	0.32	3.59	4.75
Mean Leader LMX	25	3.86	0.32	3.28	4.67
Mean Deviance	25	1.01	0.20	0.66	1.44
Follower Outcomes					
Job Satisfaction	84	3.96	1.01	1.00	5.00
Engagement	80	3.84	0.56	2.33	4.83
Follower Predictors					
Follower LMX	82	3.93	0.66	1.50	5.00
Leader LMX	83	3.84	0.51	2.50	5.00
Deviance	81	1.02	0.43	0.35	2.52

Zero-Order Correlations

Zero-order correlations between leader outcome and predictor variables are presented in Table 3. Follower variables are included, though no hypotheses were made concerning follower outcomes in the current study. Performance was not measured for followers and is not in Table 3.

Examination of the variables of interest reveals a clear absence of most of the relationships predicted by the 9 hypotheses. Average leader-rated and average follower-rated LMX did not correlate with any of the hypothesized leader outcomes. Average leader-follower deviance is correlated with leader engagement at $r = 0.42$, $p = .04$, but this represents the opposite direction of hypothesis 2c.

Table 3

Study Variables: Zero-Order Correlations for Leaders and Followers

Leader Outcomes	1	2	3	4	5	6
1. Job Satisfaction	X					
2. Engagement	0.33	X				
3. Performance	-0.14	0.15	X			
Leader Predictors						
4. Mean Follower LMX	0.09	-0.14	0.31	X		
5. Mean Leader LMX	-0.01	0.23	-0.14	-0.59**	X	
6. Mean Deviance	0.13	0.42*	-0.14	-0.03	-0.01	X
Follower Outcomes	1	2	3	4	5	
1. Job Satisfaction	X					
2. Engagement	0.57**	X				
Follower Predictors						
3. Follower LMX	0.51**	0.73**	X			
4. Leader LMX	0.15	0.13	0.14	X		
5. Deviance	-0.43**	-0.43**	-0.50**	-0.14	X	

* = Significant at $p < .05$, ** = Significant at $p < .001$

Regression Analyses

To test each of the hypotheses, each of the three outcome variables were regressed onto each of the three predictor variables in three separate regression equations. Due to the low correlation between outcome and predictor variables, as shown in Table 3, all variables were entered into each equation at the same time, as a stepwise regression would not include predictor variables with such low correlations to the outcome variable in a regression model. The results are represented in Table 4.

Hypotheses 1a, 1b and 1c were not supported by the first regression equation. Average follower-rated LMX, average leader-rated LMX, and average deviance between leader and follower were all not significant predictors of leader job satisfaction. It is important to note that the observed power for this analysis was .09, which means that it is very unlikely that I would be

able to detect an effect using this analysis, even if these variables were actually related to one another.

Hypotheses 2a, and 2b were not supported by the second regression equation. Average follower-rated LMX and average leader-rated LMX were not significant predictors of leader engagement. However, hypothesis 2c was partially supported, as average deviance between leader and follower did positively and significantly predict leader engagement. I conducted a further regression equation to investigate leader engagement regressed onto only average deviance between leader and each of their followers. The results indicated that leader engagement was positively related to the deviance variable ($B = 0.96$, $t(23) = 2.22$, $p = .036$; $R^2 = 0.177$, $F(1, 23) = 4.94$, $p < .036$). This result indicates that leader engagement was higher when leader-follower deviance was higher. This result is the opposite direction of the predicted relationship between these variables, which is why only partial support was found for hypothesis 2c. The power of the model with all three predictor variables entered was .54 and the power of the individual test of the deviance variable was .61.

Hypotheses 3a, 3b, and 3c were not supported by the third regression equation. Average follower-rated LMX, average leader-rated LMX, and average deviance between leader and follower were all not significant predictors of leader performance. As for the first regression equation, the observed power for this analysis was very low, at .19.

Table 4

Regression Analyses

Leader Job Satisfaction	B	t (21)	*p*	Model R^2	*F*	df	Sig.
(Constant)	1.14	0.22	0.83				
Mean Fol. LMX	0.36	0.48	0.64	0.03	0.20	3, 21	0.90
Mean Le. LMX	0.17	0.25	0.81				
Mean Deviance	0.59	0.62	0.55				

Leader Engagement	B	t (21)	*p*	Model R^2	*F*	df	Sig.
(Constant)	1.49	0.63	0.53				
Mean Fol. LMX	0.03	0.10	0.92	0.23	2.10	3, 21	0.13
Mean Le. LMX	0.31	1.04	0.32				
Mean Deviance	0.97	2.21	0.04				

Leader Performance	B	t (13)	*p*	Model R^2	*F*	df	Sig.
(Constant)	0.73	0.10	0.92				
Mean Fol. LMX	1.27	1.10	0.29	0.13	0.64	3, 13	0.61
Mean Le. LMX	0.13	0.15	0.89				
Mean Deviance	-0.84	-0.68	0.51				

CHAPTER IV
DISCUSSION

The primary purpose of the current study was to understand the influence of LMX on three workplace outcomes for leaders – job satisfaction, engagement, and performance. This study sought to provide further evidence for LMX theory by demonstrating that leaders benefit from high-quality relationships with their followers. The study was an attempt to extend prior research that demonstrated benefits for followers from high-quality relationships with their leaders. The following section provides a summary of results, post hoc analyses, general discussion, limitations, and implications of the current field study.

Summary of Results

The current study hypothesized that leader-rated LMX and follower-rated LMX each relate positively to the important work outcomes of job satisfaction, engagement, and performance, for leaders, while deviance between leaders and their followers on LMX relates negatively to these same outcomes. Almost no relationship between leader-rated LMX or follower-rated LMX was found for leader job satisfaction or engagement, and none of the three LMX variables were related to leader performance. These results are inconsistent with the current understanding of LMX theory, which predicts that leaders ought to receive similar benefits from high-quality exchange with their followers (Erdogan & Bauer, 2014; Wilson, et al., 2010).

The hypothesis for which results were significant concerned the relatively new variable, deviance between leaders and followers. The variations in score for each leader and follower across the 8 items of the LMX scale were computed using Root Mean Square Deviation (RMSD), and used as an index measure of deviance, with higher values representing leaders and followers that disagreed more on their evaluations of their working relationships with one

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another. The average of this deviance variable was calculated across followers for each leader, and significantly predicted leader engagement, but in the opposite of the hypothesized direction. Based on prior research (Matta, Scott, Koopman, & Conlon, in press), it was hypothesized that those leaders that had the strongest agreement with their followers on the quality of their relationships would also report the highest job satisfaction and engagement, even if the leader and followers all reported that the quality of their relationship was low. However, the current study revealed that those leaders that had the worst agreement with their followers on the quality of their relationships reported the highest job satisfaction and engagement.

Due to the striking lack of results for leader- and follower-rated LMX for leader outcomes, as well as the significant findings in the opposite of the hypothesized direction for deviance, alternative explanations for these results were considered. The alternative explanations fall into three different categories – psychometric, statistical, and file-drawer phenomenon.

One alternative explanation to these results could be that the psychometric properties of these scales were not adequate to reliably test the hypotheses. However, investigation of the measures' Cronbach's alphas, as well as comparisons between these measures and well-established measures used in previous research reveal no problems or issues. In fact, based on previous literature, the measure of LMX used in this study was actually shown to be an improvement over previous studies. All other measures for which Cronbach's alpha was calculated have higher-than-acceptable levels of reliability, and there is no reason to suspect that single-item or composite measures fail to meet reliability standards.

Post Hoc Analyses

A more reasonable alternative explanation might concern the statistical elements of the study. Relatively low power to detect effects among leaders along with very low correlations

between outcome and predictor variables are generally considered to be red-flags for statistical analyses. To determine whether there was reason to suspect that these data reflected a statistically anomalous group of individuals, post hoc analyses were conducted to test the relationships between two of the available three outcome variables, job satisfaction and engagement, and the three predictor variables, leader-rated LMX, follower-rated LMX, and LMX deviance for followers, for whom there was more statistical power due to higher N. While no hypotheses were made concerning follower outcomes, these outcomes have been well-established in the current literature (Erdogan & Bauer, 2014) and if these findings were not replicated in the current study, it could provide evidence for why the current study's findings were either null or in the opposite of the predicted direction. Performance data was not available for followers, so this outcome variable could not be tested in post hoc analyses.

Table 5

Post Hoc Regression Analyses

Follower Job Satisfaction	B	t (77)	*p*	Model R^2	*F*	df	Sig.
(Constant)	1.61	1.47	0.15				
Follower LMX	0.61	3.59	0.00	0.31	11.36	3, 77	0.00
Leader LMX	0.12	0.64	0.52				
Deviance	-0.52	-2.01	0.05				

Follower Engagement	B	t (75)	*p*	Model R^2	*F*	df	Sig.
(Constant)	1.57	3.26	0.00				
Follower LMX	0.58	7.72	0.00	0.55	30.10	3, 75	0.00
Leader LMX	0.02	0.24	0.81				
Deviance	-0.09	-0.78	0.44				

As is evident from these post hoc analyses, the relationships between the variables of interest existed just as strongly, if not more strongly, than those demonstrated in prior research. Follower job satisfaction and engagement were both positively related to follower-rated LMX, and follower job satisfaction was negatively related to the deviance variable, which matches the predicted direction and is the opposite direction of the relationship demonstrated for leaders. The power for both of these analyses was 1.0, which is very strong. Based on these results, it is unlikely that this data set reflects some statistically anomalous set of leaders and followers.

However, these analyses do not address the lack of power in the leader analyses. The lack of number of leaders, as compared to the number of followers, could make it so that these relationships are not detectable, even though they do exist. The problem with this alternative explanation is that significant findings were demonstrated for leader engagement on the deviance variable. If there was a lack of power to detect relationships between job satisfaction and engagement with leader- and follower-rated LMX, it ought to also affect the ability to detect relationships with the deviance variable.

While power issues may not solely account for the lack of findings, these issues may have been amplified by the relative restriction of range for leaders. Leader outcome and predictor variables clearly lacked variability, with relatively low standard deviations, as well as smaller ranges of scores, compared to followers. This may account for the lack of correlation between leader job satisfaction and leader engagement, which one would expect to be positive and moderate in strength (Judge, et al., 2001). This is also a possible explanation for why leader-rated LMX was consistently one of the weakest predictors across all analyses in the current study. However, this does not help explain the finding of leader-follower deviance on LMX predicting leader engagement, which is the outcome variable with arguably the most restricted range throughout all analyses. This explanation also does not help explain why average leader-

rated LMX and average follower-rated LMX scores were negatively correlated with one another. While existing literature has shown ratings of LMX from leaders and followers do not often correlate with one another (Sin et al., 2009), there is little evidence to suggest that they might be negatively correlated with one another, especially as strongly as the relationship was demonstrated for this study.

Contribution to Current Knowledge

The main purpose of the current study was to test the relationships between different measures of LMX (leader-rated, follower-rated, and deviance between leader and follower) and outcome variables for leaders. While previous research in the area of LMX theory has suggested that leaders ought to receive benefits from high-quality exchange relationships with their followers (Erdogan & Bauer, 2014; Wilson et al., 2010), no prior research has been specifically designed to test what leader outcomes might be associated with high quality LMX. The current study considered LMX reported from leaders and followers, as well as the deviance between leaders and followers. This addresses issues raised in the LMX literature concerning the over-representation of the follower perspective (Hiller, et al., 2011) as well as the lack of understanding around leader-follower deviance (Sin, et al., 2009). This study integrated commonly accepted theoretical perspectives of LMX in an attempt to extend understanding to what benefits, if any, leaders receive from high quality LMX.

Surprisingly, leader outcomes were found to be quite unrelated to average leader-rated LMX, average follower-rated LMX, and average leader-follower deviance. Only partial support was found for 1 out of 9 hypotheses, and this finding was in the opposite direction of predicted. Based on previous research, it was hypothesized that average leader-follower deviance should negatively predict leader job satisfaction, engagement, and performance (Matta, Scott, Koopman, & Conlon, in press), but results indicated that average leader-follower deviance positively

predicted leader engagement. One possible reason for this relationship includes another element of the current study that departs from established literature on LMX; leader-rated LMX was not, on average, higher than follower-rated LMX. Prior research has suggested that leaders' ratings of LMX may include bias, as they perceive LMX ratings of their followers as self-evaluations (Graen & Scandura, 1987). Yet, in the current study, followers tended to rate leaders higher than leaders rated themselves. Therefore, the deviance between leader and follower on LMX ratings may actually represent followers' positive illusions of their leaders. This, however, is difficult to confirm in the current study, especially considering the fact that leader-rated LMX was consistently the weakest predictor of both leader and follower outcomes.

As mentioned above, another possible alternative explanation for the results of the current study could be the file-drawer phenomenon, or the idea that prior researchers have tested similar hypotheses or relationships between the current study's variables and found similar lack of results, but only published the significant findings of their studies (Rosenthal, 1979) With the amount of data collected in reference to LMX over the last 60 years, it seems unlikely that researchers have yet to test the relationships between LMX and outcomes for leaders. Yet the literature has almost no mention of leader outcomes of LMX. The more likely explanation is that other researchers have not been able to demonstrate relationships between LMX and common organizational outcomes for leaders. The issue here is that the theoretical basis of LMX treats it as an exchange relationship between leaders and followers, and leaders and followers are both expected to receive benefits from high-quality LMX. If researchers have been unable to determine what, if any, benefits leaders receive from high-quality relationships with their followers, then the theory needs to be revised to reflect this lack of findings.

Limitations

As mentioned above, there are clear limitations to the current study. While the psychometric properties of the measures are strong, power to demonstrate relationships between variables was quite low, as was variability on measured variables. The way that the current study could most clearly be improved would be a higher N, which would likely help with both of these problems. While some variables of interest seem to have almost no relationship with one another, such as average leader-rated LMX and leader job satisfaction, more participants in the study may have aided in detecting relationships among variables that are more likely to relate, such as average leader-rated LMX and leader engagement as well as average follower-rated LMX and leader performance. However, these data were provided as part of an archival data-set from the organization at which these participants work, so solicitation of more data was not possible.

Another limitation of the current study is the analyses used. One might consider the use of more advanced statistical techniques to account for non-independence within the data due to relationships between leaders and followers, such as hierarchical linear modeling, structural equation modeling, or actor-partner interdependence modeling. Collapsing across followers to create an average leader-rated LMX score, average follower-rated LMX score, and average deviance between leader and follower may have contributed to the overall lack of power demonstrated in analyses. However, advanced statistical testing procedures often involve many more assumptions about the data that were likely not satisfied in the current study. HLM in particular requires higher N than multiple linear regression, so there would likely not be enough power in the current study to adequately test relationships using these methods. These advanced statistical procedures often assume data are multivariate-normally distributed, homoscedastic, and lack multicollinearity. Based on these assumptions, these types of analyses do not seem appropriate for the data of the current study. While the analyses chosen for this study may have

been imperfect, I was really only looking to demonstrate what I thought was a clear relationship between leader outcome variables and various ratings of LMX, and I think these analyses would have suited my hypothesis testing if the effect size was higher, but it seems that the relationships between these variables was much lower than anticipated.

Implications for Future Research

The current study has many implications. First, hundreds of empirical studies and multiple meta-analyses have attempted to understand the relationships between high-quality LMX and work outcomes at multiple levels of organizations. A great deal of the research is focused on follower outcomes, and results have demonstrated many positive outcomes, including job satisfaction, engagement, and performance. However, there is little research investigating leader outcomes of LMX, though it has been suggested that leaders ought to receive benefits from high quality relationships with their followers (Erdogan & Bauer, 2014; Wilson, Sin, & Conlon, 2010). The results of the current study indicate that leaders may not benefit from high quality LMX in ways that LMX has been understood for followers. Future research should focus on identifying what, if any, benefits leaders receive from high-quality relationships with their followers and theoretical rationale needs to be developed for why and how leader outcomes differ from follower outcomes.

Another implication of the current study is the update to the LMX-7 measure (Graen & Scandura, 1987). Review of the items on this measure revealed that at least 2 of the 7 items contained double-barreled questions, while question wording and response anchors on many other items were inconsistent between leader and follower versions of the measure. For the current study, the measure was originally developed into the LMX-9, but reliability analyses revealed that the measure was actually stronger as the LMX-8, with item 7 removed. This item seemed to confuse participants, and further research may want to take into account the colloquial

meaning of the phrases used in this measure, and revise accordingly based on where and with whom this measure is implemented.

There are also applied implications of the current study. While organizations may try to build on the findings that suggest there are positive outcomes of high LMX for employees, leader-follower dyads, work groups, and organizations as whole entities (Yammarino et al., 2005), there is no evidence to suggest that leaders within these relationships benefit from high quality LMX. Application of initiatives or training programs designed to increase LMX among leaders and followers should consider this lack of impact for leaders, as outcomes of high-quality LMX are really only understood from the perspective of the follower. In fact, the majority of the understanding of LMX relates follower ratings of relationship quality to follower outcomes, and relatively little is understood about leaders, at all. Other perspectives of leadership and individual, group, and organizational outcomes better account for the inputs and outputs of leaders, and LMX may be best understood as only a facet of workplace outcomes for followers.

CHAPTER V
CONCLUSION

In conclusion, the current study lends almost no support for the theoretically accepted but previously untested relationship between leader-member exchange and beneficial workplace outcomes for leaders. Leader job satisfaction, engagement, and performance were unrelated to average leader-rated LMX and average follower-rated LMX. The only significant relationship – between leader engagement and average deviance between leader and follower ratings of LMX – was opposite the hypothesis. Leaders' engagement correlated *positively* with deviance between leaders and followers about LMX. These findings appear to contradict the relatively well-accepted but nearly untested element of LMX theory, which suggests that leaders ought to benefit from high-quality relationships with their followers. The present study had low power for testing hypotheses from LMX theory concerning outcomes for leaders, but clearly suggests further investigation of LMX and leader outcomes. Earlier researchers may also have found a lack of association of leader LMX and desirable work outcomes, but if so apparently did not publish these results (and instead left them in the file drawer). If benefits of LMX exist for leaders, they have yet to be adequately tested, demonstrated, or explained, and LMX theory is clearly incomplete without an understanding of leaders' outcomes.

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APPENDIX

Leader Questionnaire

1. I know what is expected of me at work.

   □ Strongly disagree
   □ Disagree
   □ Neutral
   □ Agree
   □ Strongly agree

2. I have the materials and equipment I need to do my job right.

   □ Strongly disagree
   □ Disagree
   □ Neutral
   □ Agree
   □ Strongly agree

3. At work, I have the opportunity to do what I do best every day.

   □ Strongly disagree
   □ Disagree
   □ Neutral
   □ Agree
   □ Strongly agree

4. In the last seven days, I have received recognition or praise for doing good work.

   □ Strongly disagree
   □ Disagree
   □ Neutral
   □ Agree
   □ Strongly agree

5. My supervisor or someone at work seems to care about me as a person.

   □ Strongly disagree
   □ Disagree
   □ Neutral
   □ Agree
   □ Strongly agree

6. There is someone at work who encourages my development.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

7. At work, my opinions seem to count.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

8. The mission or purpose of my company makes me feel my job is important.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

9. My associates or fellow employees are committed to doing quality work.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

10. I have a best friend at work.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

11. In the last six months, someone at work has talked to me about my progress.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

12. This last year, I have had opportunities at work to learn and grow.

     ☐ Strongly disagree
     ☐ Disagree
     ☐ Neutral
     ☐ Agree
     ☐ Strongly agree

1. How satisfied are you with your job, overall?

      ☐ Very dissatisfied
      ☐ Somewhat dissatisfied
      ☐ Neither satisfied nor dissatisfied
      ☐ Somewhat satisfied
      ☐ Very satisfied

1. What is your gender?

   ☐ Male   ☐ Female

2. What is your age?
   - ☐ 18 to 21 years old
   - ☐ 22 to 25 years old
   - ☐ 26 to 30 years old
   - ☐ 31 to 40 years old
   - ☐ 41 to 50 years old
   - ☐ 51 years or older

3. How long have you been working in your current position?
   - ☐ Less than 6 months
   - ☐ 6 months – 1 year
   - ☐ 1 – 2 years
   - ☐ 3 – 4 years
   - ☐ 5 – 9 years
   - ☐ 10 – 14 years
   - ☐ 15 or more years

4. How would you classify your race/ethnicity?
   - ☐ Black/African-American (non-Hispanic)
   - ☐ Asian/Pacific Islander
   - ☐ White/Caucasian (non-Hispanic)
   - ☐ Hispanic/Latino
   - ☐ Native American/Alaskan Native
   - ☐ Other (please describe _____)

The following questions ask about your relationship with your direct report: _____.

Please answer by marking the box with your answer. ☑

1. How often do you let him know where he stands with you?

   ☐ Rarely
   ☐ Occasionally
   ☐ Sometimes
   ☐ Fairly often
   ☐ Very often

2. How often do you let him know how satisfied you are with him?

   ☐ Rarely
   ☐ Occasionally
   ☐ Sometimes
   ☐ Fairly often
   ☐ Very often

3. I think I understand his job problems.

   ☐ Not at all
   ☐ A little
   ☐ Moderately
   ☐ Mostly
   ☐ Fully

4. I think I understand his job needs.

   ☐ Not at all
   ☐ A little
   ☐ Moderately
   ☐ Mostly
   ☐ Fully

5. I think I recognize his potential.

   ☐ Not at all
   ☐ A little
   ☐ Moderately
   ☐ Mostly
   ☐ Fully

6. I would be personally inclined to use my power to help him solve problems in his work.

       ☐ Strongly disagree
       ☐ Disagree
       ☐ Neutral
       ☐ Agree
       ☐ Strongly agree

7. I would be willing to bail him out, even at my own expense, if he really needed it.

       ☐ Strongly disagree
       ☐ Disagree
       ☐ Neutral
       ☐ Agree
       ☐ Strongly agree

8. I believe he has enough confidence in me that he would defend my decision if I were not present to do so.

       ☐ Strongly disagree
       ☐ Disagree
       ☐ Neutral
       ☐ Agree
       ☐ Strongly agree

9. How would you characterize your working relationship with him?

       ☐ Extremely ineffective
       ☐ Worse than average
       ☐ Average
       ☐ Better than average
       ☐ Extremely effective

Follower Questionnaire

The following questions ask about your relationship with your supervisor:

Please print supervisor name:_____.

Mark the box (☑) with your answer.

1. How often does your leader let you know where you stand with him?

   □ Rarely
   □ Occasionally
   □ Sometimes
   □ Fairly often
   □ Very often

2. How often does your leader let you know how satisfied he is with you?

   □ Rarely
   □ Occasionally
   □ Sometimes
   □ Fairly often
   □ Very often

3. How well does your leader understand your job problems?

   □ Not at all
   □ A little
   □ Moderately
   □ Mostly
   □ Fully

4. How well does your leader understand your job needs?

   □ Not at all
   □ A little
   □ Moderately
   □ Mostly
   □ Fully

5. How well does your leader recognize your potential?

   □ Not at all
   □ A little
   □ Moderately
   □ Mostly
   □ Fully

6. I think my leader would use his power to help me solve problems at work.

    ☐ Strongly disagree
    ☐ Disagree
    ☐ Neutral
    ☐ Agree
    ☐ Strongly agree

7. I think my leader would be willing to "bail me out" at his own expense.

    ☐ Strongly disagree
    ☐ Disagree
    ☐ Neutral
    ☐ Agree
    ☐ Strongly agree

8. I have enough confidence in my leader that I would defend his decision if he were not present to do so.

    ☐ Strongly disagree
    ☐ Disagree
    ☐ Neutral
    ☐ Agree
    ☐ Strongly agree

9. How would you characterize your working relationship with your leader?

    ☐ Extremely ineffective
    ☐ Worse than average
    ☐ Average
    ☐ Better than average
    ☐ Extremely effective

10. How satisfied are you with your job, overall?

    ☐ Very dissatisfied
    ☐ Somewhat dissatisfied
    ☐ Neither satisfied nor dissatisfied
    ☐ Somewhat satisfied
    ☐ Very satisfied

The following questions are about your own experience at work.
Please rate the extent to which you agree with the following statements.

1. I know what is expected of me at work.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

2. I have the materials and equipment I need to do my job right.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

3. At work, I have the opportunity to do what I do best every day.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

4. In the last seven days, I have received recognition or praise for doing good work.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

5. My supervisor or someone at work seems to care about me as a person.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

6. There is someone at work who encourages my development.

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Neutral
   ☐ Agree
   ☐ Strongly agree

7. At work, my opinions seem to count.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

8. The mission or purpose of my company makes me feel my job is important.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

9. My associates or fellow employees are committed to doing quality work.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

10. I have a best friend at work.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

11. In the last six months, someone at work has talked to me about my progress.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

12. This last year, I have had opportunities at work to learn and grow.

    □ Strongly disagree
    □ Disagree
    □ Neutral
    □ Agree
    □ Strongly agree

1. What is your gender?

    ☐ Male   ☐ Female

2. What is your age?
    ☐ 18 to 21 years old
    ☐ 22 to 25 years old
    ☐ 26 to 30 years old
    ☐ 31 to 40 years old
    ☐ 41 to 50 years old
    ☐ 51 years or older

3. How long have you been working in your current position?
    ☐ Less than 6 months
    ☐ 6 months – 1 year
    ☐ 1 – 2 years
    ☐ 3 – 4 years
    ☐ 5 – 9 years
    ☐ 10 – 14 years
    ☐ 15 or more years

4. How would you classify your race/ethnicity?
    ☐ Black/African-American (non-Hispanic)
    ☐ Asian/Pacific Islander
    ☐ White/Caucasian (non-Hispanic)
    ☐ Hispanic/Latino
    ☐ Native American/Alaskan Native
    ☐ Other (please describe _____)

Supervisor Questionnaire

The following questions ask about the current level of performance of your direct report,
_____.

Please answer by marking the box with your answer. ☑

1. How would you rate his/her performance compared to others in a similar position?
   - ☐ Bottom 2%
   - ☐ Bottom 10%
   - ☐ Bottom 25%
   - ☐ Top 50%
   - ☐ Top 25%
   - ☐ Top 10%
   - ☐ Top 2%

2. How would you rate his/her ability to get along with others?
   - ☐ Bottom 2%
   - ☐ Bottom 10%
   - ☐ Bottom 25%
   - ☐ Top 50%
   - ☐ Top 25%
   - ☐ Top 10%
   - ☐ Top 2%

3. How would you rate his/her ability to produce results?
   - ☐ Bottom 2%
   - ☐ Bottom 10%
   - ☐ Bottom 25%
   - ☐ Top 50%
   - ☐ Top 25%
   - ☐ Top 10%
   - ☐ Top 2%

4. How would you rate his/her overall effectiveness in his/her current job?
   - ☐ Bottom 2%
   - ☐ Bottom 10%
   - ☐ Bottom 25%
   - ☐ Top 50%
   - ☐ Top 25%
   - ☐ Top 10%
   - ☐ Top 2%

VITA

Matthew J. Shaffer was born in Greenwich, CT and was raised in Scottsdale, AZ and Annandale, NJ. He attended Anasazi Elementary School in Scottsdale, AZ, Patrick McGaheran Elementary School in Clinton, NJ, Round Valley Middle School, and North Hunterdon High School. He graduated with a B.A. degree in Psychology from The University of Delaware in 2009. He received his M.A. in Experimental/Applied Psychology from The University of Tennessee in 2012 and completed the requirements for his doctorate degree in April, 2016.