RELATIONAL PREDICTORS OF LEADER-MEMBER EXCHANGE: A SOCIAL COGNITIVE AND AFFECTIVE PERSPECTIVE

by

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ABSTRACT

COURTNEY E. WILLIAMS. Relational predictors of leader-member exchange: A social cognitive and affective perspective. (Under the direction of DR. JANAKI GOOTY)

The study of dyadic relationships in the workplace has gained increasing importance in the organizational sciences, with one such relationship being the leader-follower relationship. While relationship quality can be operationalized in multiple ways, the most prevalent theoretical framework for leader-follower relationships is Leader-Member Exchange (LMX), which focuses on the quality of reciprocal exchanges within the relationship. High-quality LMX relationships are linked to a variety of beneficial outcomes for organizations; however, we still know very little about predictors of high-quality LMX relationships that are derived from the relationship itself. This dissertation addresses this gap in the LMX literature by drawing upon the multidisciplinary relationship sciences to examine relational predictors of LMX from both a cognitive and affective lens. From a cognitive perspective, this work examines leader-follower agreement in implicit theories of relationships (i.e., growth and destiny beliefs) and the relationship-specific communal motive as predictive of both leader and follower LMX. From an affective perspective, this work examines the emotional tone of the relationship by accounting for the simultaneous influence of cognition and emotion in predicting both leader and follower LMX, as well as adopting a more holistic perspective of emotion to examine the ratio of positive to negative emotional tone in LMX relationships. Overarchingly, this work contributes to a better understanding of how both leaders' and followers' cognitions and emotions about their relationship influence the quality of the reciprocal exchanges in their LMX relationship.

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CHAPTER I

INTRODUCTION

The study of dyadic relationships has gained more importance in management scholarship as the nature of work has become increasingly interdependent within modern organizations (Chiaburu & Harrison, 2008; Colbert et al., 2016; Ferris et al., 2009; Grant & Parker, 2009; Liden et al., 2016). Dyads are the primary building block to enacting such interdependence as they are the "fundamental unit of interpersonal interaction" (Kenny et al., 2006, p. 1). While the study of dyadic relationships in the workplace spans multiple forms (e.g., coworker-coworker, mentor-protégé: Ferris et al., 2009; Liden et al., 2016), my dissertation specifically focuses on the leader-follower dyadic relationship. Here, the most prevalent theoretical framework is Leader-Member Exchange (LMX) in which the quality of reciprocal exchanges within a specific leader-follower dyad is of substantive interest (Dienesch & Liden, 1986; Gerstner & Day, 1997; Graen & Scandura, 1987; Graen & Schiemann, 1978; Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998; Schriesheim et al., 1999). LMX is important for organizations as multiple meta-analytic reviews have demonstrated that high quality LMX relationships lead to improved follower performance, organizational citizenship behavior, satisfaction, commitment, and reduced turnover (Dulebohn et al., 2012; Dulebohn et al., 2017; Gerstner & Day, 1997; Ilies et al., 2007; Martin et al., 2016).

Despite the evidence for the value of high-quality LMX relationships in terms of follower outcomes, far less empirical attention has been given to the drivers of high-quality LMX relationships. This is problematic as the theoretical and practical value of LMX is muddled without a clear understanding of the nomological network. Further, given the multilevel nature of LMX (i.e., the *dyadic* leader-follower relationship), this nomological network must address both

the leader and the follower as well as their relationship. The extant literature that focuses on predictors of the LMX relationship typically examines perceptions of leader behaviors, follower competence and use of influence tactics, and other individual characteristics (e.g., personality, intelligence, demographics: Dulebohn et al., 2012), with the "relational" lens primarily focusing on similarity between such individual characteristics (e.g., leader-follower personality similarity). Notably missing from this discussion are drivers of the LMX relationship derived from the actual relationship between the leader and follower. My dissertation addresses this gap in the LMX literature by drawing upon the relationship sciences, a multidisciplinary domain dedicated to understanding the science of interpersonal relationships of all types (Berscheid, 1999), to identify potential relational predictors from both a cognitive and affective lens. This is in line with multiple management reviews that identified the importance of bridging the parallel development of the relationship sciences literature with the workplace relationships literature (Dutton & Ragins, 2007; Epitropaki et al., 2013; Martin et al., 2010; Thomas et al., 2013).

More specifically, my dissertation makes the following four contributions to the LMX literature. First, the relationship sciences demonstrate the primacy of relational cognition in the form of generalized beliefs about relationships (i.e., no specific relationship partner), as well as cognitive evaluations of specific relationships with specific partners, for influencing relationship quality across platonic and romantic relationships (e.g., Canevello & Crocker, 2010; Crocker et al., 2017; Gable & Reis, 2006; Laurenceau et al., 1998; Le et al., 2018; Lemay et al., 2007; Mills et al., 2004; Reis, 2012; Segal & Fraley, 2016). I integrate this study of relational cognition into LMX scholarship. In line with the social information processing approach to leadership in management, which focuses on implicit leadership and followership theories for leadership in general (Galambos et al., 1986; Epitropaki et al., 2013; Lord & Emrich, 2000; Lord & Maher,

1991; Walsh, 1995), I introduce generalized, implicit theories of relationships (ITR-L and ITR-F for the leader and follower respectively) comprised of growth and destiny beliefs as predictors of LMX. Growth and destiny beliefs represent enduring relational orientations with the former emphasizing the belief that successful relationships are built by overcoming challenges over time and the latter emphasizing the belief that successful relationships can be diagnosed at the outset of the relationship (Holmes & Boon, 1990; Holmes & Rempel, 1989; Knee, 1998; Knee et al., 2003; Lydon et al., 1997; Miller et al., 1986).

Additionally, I draw upon communal relationship theory in social psychology (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982) to introduce relationship-specific cognition in the form of communal strength as a predictor of LMX. Communal strength is the degree to which a leader or follower exhibits a communal motive in their relationship, or the desire to meet their specific partner's relational needs *without* expectations of a comparable return in benefits (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982; Mills et al., 2004; Le et al., 2018). Thus, the examination of communal strength in leader-follower relationships moves the LMX literature beyond the current preoccupation with social exchange to integrate a motive outside of the exchange motive that drives relationships.

Second, a voluminous body of work in both social psychology and management (e.g., Ashkanasy & O'Connor, 1997; Byrne, 1961; 1971; 1997; Dulebohn et al., 2012; Fairhurst, 2001; Graen & Schiemann, 1978; Liden et al., 1993; Phillips & Bedeian, 1994; Steiner, 1988; Turban & Jones, 1988; Uhl-Bien, 2011; Weiss, 1978; Wexley et al., 1980) speaks to the similarity-attraction paradigm in which similarity in relationship partners' personalities, values, attitudes, and cognitive evaluations anchors alignment in both intentions and behaviors, as well as promoting validation of the self. This, in turn, enhances feelings of intimacy and closeness in

relationships. Thus, I focus specifically on leader-follower *shared* growth beliefs, destiny beliefs, and communal strength in this dissertation as similarities between relationship partners can set the foundation for developing higher quality relationships. Further yet, this contribution also addresses methodological concerns with LMX as multiple influential reviews have pointed to the predominant use of one-sided, follower ratings of the LMX relationship as problematic for the understanding of *dyadic* LMX relationships (Gooty et al., 2012; Schriesheim et al., 1999; Schriesheim et al., 2001; Yammarino et al., 2005).

Third, relationships serve as a source for emotion elicitation when cognitive relational expectancies and both interpersonal and personal goals derived from the relationship are met and/or violated (Berscheid, et al., 1989; Bradbury & Fincham, 1987; Gooty et al., 2019; Lazarus & Folkman, 1984; Weiss & Cropanzano, 1996), thereby demonstrating the complex interplay of cognition and emotion in relationships. Despite this well-known linkage between cognition and emotion, the extant LMX literature takes a simplistic perspective by examining emotion and cognition in isolation of one another. This is problematic as any theoretical inferences built from the separate, empirical investigations of emotion or cognition in leader-follower relationships may be oversimplified (Bradbury & Fincham, 1987). Thus, I examine leaders' and followers' perception of the emotional tone of their relationship, or the stable, crystallized perception of the overarching positive and negative tone of the relationship (Beckes, 2009; Berscheid & Reis, 1998; Berscheid et al., 1989; Gooty et al., 2019). I then test the *simultaneous* effect of growth beliefs, destiny beliefs, communal strength, and emotional tone by examining their relative importance for predicting both leader and follower LMX.

Finally, the LMX literature (as well as the organizational science literature in general) typically adopts a symmetrical perspective of emotion, where positive emotions are cast as

beneficial for the relationship and negative emotions are destructive for the relationship. The relationship sciences, however, draw from the balanced affect model (Gottman, 1994; Gottman & Levenson, 1992) where the social-cognitive function of both positive and negative emotions is important for relational sensemaking and relationship stability when positive emotions occur at a higher rate than negative emotions in the relationship. Following Gottman and colleagues' body of work in conflict and marital relationships (Gottman, 1994; Gottman et al., 1998; Gottman & Levenson, 1992; 1999; 2002), which found that the ratio of positive to negative emotional interactions for marital partners predicts marriage stability and divorce, I examine the emotional tone ratio for both leaders and followers to see if the ratio is related to LMX. In sum, across all four contributions, my dissertation integrates relational predictors (i.e., predictors derived from the relationship itself) into the LMX literature from a cognitive and affective perspective. Next, I provide a brief overview of the LMX domain.

Leader-Member Exchange

Starting in the 1970s, leadership researchers began to question the predominant perspective of leadership as a singular, average behavior and style that leaders exhibit towards their collective followers. Departing from this viewpoint led to both within-group (i.e., ingroup versus outgroup: vertical dyad linkage or VDL) and dyadic (i.e., individualized leadership) perspectives of the leadership process (Dansereau, 1995; Dansereau et al., 1975; Graen & Schiemann, 1978). LMX evolved out of this body work with theoretical underpinnings in social exchange theory and role theory (Dienesch & Liden, 1986; Dulebohn et al., 2012; Gerstner & Day, 1997; Gooty & Yammarino, 2016; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995; Schriesheim et al., 1999). Drawing from social exchange theory, low-quality LMX is considered an economic exchange relationship typical to the formal agreement of the leader and follower

roles in which exchanges are comprised of less trust and more active monitoring (Blau, 1964; Dienesch & Liden, 1986; Gerstner & Day, 1997; Graen & Scandura, 1987; Graen & Schiemann, 1978; Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998; Schriesheim et al., 1999; Thibaut & Kelley, 1959). High-quality LMX is considered a social exchange relationship comprised of reciprocal exchanges of extra-role commodities, including reciprocal exchange of affect, loyalty, contribution, professional respect, support, trust, attention, obligation, influence, delegation, latitude, and innovativeness dimensions (Ferris et al., 2009).

While social exchange theory speaks to the content of LMX, role theory explains how high-quality LMX develops. Here, the leader's and follower's roles evolve beyond the formal employment agreement through a series of role-making episodes in which followers demonstrate their competence (Dienesch & Liden, 1986; Liden & Maslyn, 1998). Graen and Scandura (1987) originally theorized three phases for this process: 1) role taking –leader initiates a sent role to a follower and the follower responds in the received role, 2) role making –a leader and follower continuously test their roles and negotiate greater latitude, and 3) role routinization – roles and expectations are established between leader and follower and high-quality LMX ensues.

In the current state of the science, two, predominant conceptualizations of LMX exist – multidimensional LMX and social exchange LMX. Multidimensional LMX was introduced by Dienesch and Liden (1986) to account for the range of potential exchange dimensions (e.g., affect, loyalty, contribution, professional respect: Liden & Maslyn, 1998) that comprise high-quality LMX relationships (beyond the work-related commodities that were originally proposed in seminal LMX work: Graen, 1976; Graen & Scandura, 1987). In a critique of multidimensional LMX, Bernerth and colleagues (2007) argued that LMX occurs at a global-level and, therefore, exact dimensions do not need to be specified. As a result of these differing approaches to LMX,

different camps of LMX research have emerged. While both conceptualizations focus on reciprocity in LMX relationships, multidimensional LMX emphasizes *what* comprises reciprocity (i.e., the extra-role commodities within social exchanges and the psychological states therein) and social exchange LMX emphasizes *how* reciprocity ensues (i.e., global exchange behaviors). Thus, I examine LMX relationships from both perspectives: 1) the quality of the global exchange process (i.e., social exchange LMX) and 2) the quality of specific dimensions that are exchanged in the relationship (i.e., multidimensional LMX). The following section presents some challenges and limitations for LMX that are relevant to this dissertation.

A Critique of LMX Research

There are two critiques of LMX that are relevant to this dissertation. First, misalignment in level of analysis is prevalent in the LMX research domain. Misalignment in level of analysis occurs when a researcher specifies one level of analysis in their theory and hypotheses (e.g., dyad-level) and then collect and analyze data to test hypotheses at a different level of analysis (e.g., individual-level). In a recent review of all dyad-level leadership research in high quality journals in management, applied psychology, and leadership, Kim et al. (2020) found that only 27 studies examined dyad-level phenomenon in LMX research. This number is surprisingly low for such a popular theoretical framework in leadership (e.g., Graen & Uhl-Bien's, 1995, review of 25 years of LMX research has garnered over 6,000 citations on Google Scholar at the time of writing this dissertation). In 2012, Gooty and colleagues reviewed the LMX literature specifically and found that 68% of published LMX studies suffered from misalignment in level of theory and hypotheses with measurement and analysis. The majority of this misalignment occurred for dyad-level theory (in comparison to individual- and team-levels), with 96 out of 105 published articles using dyad-level theory demonstrating misalignment. Paruchuri and colleagues

(2018) identify the pitfalls of such misalignment as heightening the risk of mis-specified models, causing researchers to reach incorrect conclusions about their constructs of interest and the relationships they have with other constructs (Robinson, 1950; Thorndike, 1939).

Second, the LMX literature has given far less attention to how leaders and followers develop and sustain high-quality relationships. As noted previously, some research addresses predictors of LMX; however, missing from this literature is a focus on relational predictors. While multiple reviews have identified promising avenues for future research on relational predictors of LMX (Epitropaki et al., 2013; Ferris et al., 2009; Thomas et al., 2013), very few empirical studies have examined these phenomena to date. Using an affective lens, Gooty and colleagues (2019) empirically examined how leader-follower convergence in the positive and negative emotional tone of the relationship influences perceptions of LMX. They found that higher levels of convergence in positive emotional tone related to higher LMX ratings from both leaders and followers; however, convergence in negative emotional tone had no association with LMX ratings, despite the fact that reported convergence in negative emotional tone was equivalent to reported convergence in positive emotional tone.

In terms of relational cognition as a predictor of LMX, Tsai and colleagues (2017) examined two relational schemata based in social exchange theory – expressive relational schema (ERS; i.e., social exchange) and instrumental relational schema (IRS; i.e., economic exchange). Relational schemata are interpersonal knowledge structures developed from repeated social interactions that are used to process social information and dictate social behavior (Baldwin, 1992; 1997). They found that ERS congruence positively effects follower LMX while ERS incongruence impairs follower LMX. Loignon and colleagues (2019) drew upon the investment model of relationships (Rusbult, 1980) to examine the influence of leader-follower

shared relationship satisfaction and investment as antecedents to LMX. They found that disagreement in dyadic LMX can be a result of differences in leader and follower attributions for the importance of satisfaction and investment in the relationship. Finally, Richards and Hackett (2012) examined attachment-related working models and LMX and found that insecure attachment orientations (i.e., avoidance and anxiety) for leaders and followers are negatively related to LMX. However, the use of antecedent-focused emotion regulation strategies buffered the association for anxious attachment style, but not for avoidant attachment style.

While the above empirical work is a promising start to the examination of relational predictors for high-quality leader-follower relationships, there is much room for improvement in our understanding of the primacy of cognition and emotion derived from the relationship as drivers of leaders and follower LMX. The following sections provide an overview of the cognitive and affective lenses that I use in this dissertation to better integrate relational explanatory mechanisms into LMX scholarship. First, I will discuss leaders and followers use of generalized, implicit theories of leader-follower relationships.

Implicit Theories of Leader-Follower Relationships

The study of cognition in LMX has predominantly taken an individual-level lens, with an emphasis on the differing cognitive schemata that individuals hold for each other (i.e., not the dyadic relationship). In this respect, implicit leadership theories (ILTs) and implicit followership theories (IFTs) have garnered attention in the leader cognition literature. Implicit theories are learned, cognitive structures that specify expected characteristics for a category of people based on accumulated prior experiences, with ILTs specifying prototypical attributes of what a leader *should* be and IFTs specifying prototypical attributes of what a follower *should* be (Epitropaki et al., 2013; Lord et al., 1984; Lord & Maher, 1991; Sy, 2010). Notably, implicit theories (not to be

confused with the scientific use of the word "theory") are created by individuals as lay theories that reside in the mind and, thus, are a construct in themselves (Epitropaki et al., 2013; Levy et al., 2006; Rosenberg & Jones, 1972; Sternberg, 1985). This is in stark contrast to *explicit,* scientific theories that are created by researchers based on data and scientific observation. Individual's implicit theories vary based on the social category and their accumulated experiences with that category. These theories are stored in the individual's memory and activate when the individual interacts with someone that resembles the social category, with leaders and followers being social categories of people (Epitropaki & Martin, 2004; Kenney et al., 1996).

Implicit theories are an important component of the social information processing approach to leadership because they set the stage for an individual's "interpretive frame within which information is processed" (Epitropaki et al., 2013, p. 859), no matter the objective accuracy of the implicit theory (Chiu et al., 1997; Shondrick & Lord, 2010; Sy, 2010). Missing from the implicit theories literature in leadership is a focus on dyad-level implicit theories, or implicit theories of leader-follower relationships (ITR-L and ITR-F). This area of inquiry is ripe for integration of implicit theories of relationships (ITRs) as leaders and followers can enter into relationships with preexisting notions of an ideal *relationship* just as much as they enter with preexisting notions of an ideal leader or follower (i.e., ILTs or IFTs).

Drawing from the social psychology and relationship sciences literatures, a variety of relationship beliefs have been identified as part of individuals' ITRs in both platonic and romantic relationships. Of particular interest to the leader-follower relationship are ITRs comprised of growth beliefs versus destiny beliefs (Epitropaki et al., 2013; Thomas et al., 2013). Knee (1998) identified growth beliefs in ITRs as beliefs that ideal relationships are cultivated and nurtured over time, with relational stressors serving as growth opportunities in the

relationship. Knee (1998) also identified destiny beliefs in ITRs as the belief that relationships can be evaluated as either ideal or not from the outset of the relationship, with initial relational stressors signaling that the relationship is not ideal. I am interested in individual-level perceptions of LMX for leaders and followers that *share* ITRs comprised of growth and destiny beliefs. A detailed explanation of how growth and destiny beliefs affect the leader-follower relationship will follow in Chapter 2. Next, I provide a brief overview of the relationship-specific cognition that I examine in this dissertation.

Relationship-Specific Cognition

I draw from communal relationship theory (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982) as an opposing theoretical framework to the dominant social exchange perspective of LMX. In contrast to the exchange motivation in relationships (where benefits are dispersed with the contingency that a comparable, more immediate return in benefits will take place), a communal motivation prioritizes the welfare of a focal relationship partner with no expectations for a comparable return in benefits. Using the communal relationship framework, I examine communal strength, or the strength of the communal motivation in a specific relationship (Clark & Mills, 1979; 1993; Clark et al., 1987; Le et al., 2018; Mills & Clark, 1982; Mills et al., 2004). As stated previously, I focus on the extent to which leaders and followers *share* relationship-specific communal strength as predictive of LMX. While I expect that generalized and specific relational cognition will influence leader and follower LMX, cognition does not occur in a vacuum; rather, cognition and emotion occur simultaneously as relationships progress. In the following section, I provide a brief overview of the affective focus of this dissertation – the emotional tone of the relationship.

Emotional Tone in Leader-Follower Relationships

Relationships can serve as a source for emotion elicitation for both relationship partners (Berscheid, et al., 1989; Bradbury & Fincham, 1987; Gooty et al., 2019; Lazarus & Folkman, 1984; Weiss & Cropanzano, 1996). Berscheid and colleagues (1989) explain a cycle of cognitive, relational expectancies and emotion in platonic and romantic relationships in their emotion-in-relationships (ERM) model. Berscheid et al. posit that relationship partners hold cognitive expectancies of one another grounded in their own beliefs of how the relationship *should* proceed, as well as their interpersonal and personal goals related to the relationship. Discrete emotions are elicited in conjunction with interpersonal interactions that activate such relational expectancies and goals, with negative emotions elicited from violations of relational expectancies and obstruction of relational goals and positive emotions elicited when relational expectancies are met and relational goals are achieved. As accumulated affective experiences in the relationship ensue, an overarching positive and negative emotional tone of the relationship emerges at the individual-level for each relationship partner. This crystallized emotional tone is comprised of a cognitive repository of information about the relationship and the relationship partner derived from the accumulated affective experiences (Gooty et al., 2019).

As mentioned previously, Gooty et al. (2019) empirically examined leader-follower convergence in positive and negative emotional tone and LMX, with convergence in positive emotional tone relating to higher LMX ratings and no association for convergence in negative emotional tone and LMX. My dissertation extends this work on emotional tone as a relational predictor of LMX by taking a more nuanced perspective. First, I examine the relative importance of emotional tone in predicting LMX in comparison to relational cognition in the form of growth beliefs, destiny beliefs, and communal strength as the examination of emotion and cognition in

isolation can produce artificial and oversimplified inferences on the role of these constructs in the construction of relationship quality (Bradbury & Fincham, 1987). Second, I seek to overcome the simplistic perspective of emotion typically used in the organizational sciences in which positive and negative emotion are pit against each other with expectations of symmetrical effects (i.e., positive emotion leading to positive outcomes and negative emotion leading to negative outcomes). Here, I draw upon Gottman and colleagues' (Gottman, 1994; Gottman et al., 1998; Gottman & Levenson, 1992) balanced affect model which identifies a functional ratio of positive to negative emotional interactions as key to the development and maintenance of flourishing relationships. Such a holistic perspective of emotion is important for LMX scholarship as it is more realistic to the human experience, yet we still do not understand how both negative and positive emotion characterize high-quality relationships for leaders and followers. Thus, I examine if emotional tone ratio is related to LMX. In the following section, I summarize the research objectives of my dissertation.

Research Objectives

Overarchingly, my dissertation research seeks to understand predictors of LMX that are derived from the actual relationship between the leader and follower (in contrast to individual characteristics of the leader or follower). Note that while I take an explicit focus on relational predictors of LMX to build theory around the explanatory mechanisms that drive the development and maintenance of high-quality, leader-follower relationships, I use a non-causal framework. I cast relational cognition and emotional tone as predictors of LMX as this aligns with the body of work developed in the relationship sciences, social psychology, and management where cognition and emotion drive subsequent behaviors and relational outcomes (Barsade, 2002; Barsade et al., 2000; Bartel & Saavedra, 2000; Berscheid, 1983; Boiger &

Mesquita, 2012; Han, 2014; Hareli & Rafaeli, 2008; Kim et al., 2010; Tse et al., 2013; Weiss & Cropanzano, 1996). However, I do not rule out the possibility for reverse causality as perceptions of LMX might produce a self-reinforcing cycle of emotion and cognition in the relationship (Hareli & Rafaeli, 2008; Walter & Bruch, 2008).

Within this overarching focus, my dissertation has four, primary research objectives. First, I integrate relational cognition as potential predictors of leader and follower LMX. In this respect, I examine generalized implicit theories of relationships comprised of growth and destiny beliefs and relationship-specific communal strength. Second, I take a dyadic perspective of relational cognition and LMX by examining leader-follower shared growth beliefs, destiny beliefs, and communal strength as predictive of leader and follower LMX. This research objective aligns with the extant literature from both social psychology and management concerning the theoretical and methodological importance of obtaining ratings from both relationship partners to better understand the dyadic relationship. Third, I extend research on emotional tone in LMX by examining its relative importance with relational cognition to examine the simultaneous effect of these relational predictors. Finally, I further distinguish the emotional characterization of LMX relationships by taking a holistic perspective of emotion in the human experience. Here, I examine if emotional tone ratio is related to LMX for both leaders and followers. A complete discussion of each of these focal constructs and my hypotheses is presented in the next chapter.

CHAPTER II

REVIEW OF LITERATURE

This chapter begins with a review of the theoretical basis for LMX. Then, I review the literature on the current state of the social information processing approach to leadership (i.e., implicit leadership and followership theories). Finally, I discuss ITR-L and ITR-F, communal strength, and emotional tone in leader-follower relationships, culminating in the development of specific hypotheses for this dissertation work.

Leader Member Exchange: Theoretical Foundations

The seminal work for dyadic leader-follower relationships began with VDL (Dansereau et al., 1975; Graen, 1976). VDL challenged the prevailing assumption of an average leadership style and introduced the leader-follower dyad as a primary unit of analysis in the study of leadership. Following the initial VDL studies, empirical findings using this framework were inconsistent (Dansereau et al., 1975; Kim et al., 2020; Liden & Graen, 1980; Nachman et al., 1983; Rosse & Kraut, 1983); thus, the validity of this approach was called into question. Around the same time, LMX emerged (Graen & Cashman, 1975) and emphasized the quality of the dyadic exchange relationship between a leader and follower (Graen & Cashman, 1975; Graen et al., 1982; Graen & Uhl-Bien, 1991; 1995). Role theory and social exchange theory were used as the theoretical foundations to explicate a three-phase role making process of LMX development (Graen & Cashman, 1975)

In the initial role taking phase, a leader typically initiates a “sent role” to the follower (Dienesch & Liden, 1986; Graen & Cashman, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). The follower then receives and reacts to the sent role and the leader evaluates the follower reaction. The role taking phase is primarily comprised of economic exchanges (Blau,

1964) where exchanges are typical to the structured, formal employment agreement (Dienesch & Liden, 1986; Gerstner & Day, 1997; Graen & Scandura, 1987; Graen & Schiemann, 1978; Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998; Schriesheim et al., 1999). Based on the leader's evaluation of the follower during the role taking phase, the leader may initiate another sent role and thereby provide the opportunity to move into the next phase of LMX development, the role making phase (Graen & Cashman, 1975; Graen & Scandura, 1987). During a series of transactions in the role making phase, dyadic interdependencies develop to create mutually enforcing behavioral cycles between the leader and follower (Dienesch & Liden, 1986; Graen & Cashman, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). At this stage, social exchanges (Blau, 1964) are incorporated into the leader-follower relationship in which extra-role resources are reciprocally exchanged. In the final phase of role routinization, reciprocal behaviors of the leader-follower transactions become routinized and mutual expectations form between the leader and follower for ongoing and future transactions (Dienesch & Liden, 1986; Graen & Cashman, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995).

As the LMX literature has evolved, two camps of researchers with differing focal areas of study have emerged. Some LMX researchers focus on multidimensional LMX, in which the dimensions that comprise social exchange are of substantive interest (e.g., Dienesch and Liden, 1986; Liden & Maslyn, 1998). Dienesch and Liden (1986) introduced the multidimensional conceptualization of LMX by incorporating three dimensions of LMX: 1) affect – mutual affection between the leader and follower, 2) loyalty – the leader's and follower's public support of one another, and 3) contribution – the leader's and follower's work-related inputs towards shared goals. Liden and Maslyn (1988) demonstrated empirical support for the original Dienesch and Liden (1986) conceptualization, with the addition of a fourth dimension, professional respect

– the leader's and follower's acknowledgment of each other's professional reputation. The second LMX research camp, however, focuses on the global process of social exchange (e.g., Bernerth et al., 2007; Cropanzano et al., 2017). In 2007, Bernerth and colleagues defined social exchange LMX as perceptions of whether or not voluntary actions on the follower's/leader's part would be returned by the other dyad partner in some way (p. 985). Here, they subsume all dimensions of LMX into voluntary actions on a global level of social exchange. I examine individual-level perceptions of both multidimensional LMX and social exchange LMX for the leader and follower in my dissertation research.

Cognition in Leadership and Relationships

The cognitive approach to leadership asserts that "leadership factors are in the mind of the respondent" (Eden & Leviatan, 1975, p. 741). In this respect, complex social information is simplified by processing the information derived from a specific target in a top-down manner through organized knowledge structures for broader social categories of people (Epitropaki et al., 2013; Galambos et al., 1986; Lord & Emrich, 2000; Lord & Maher, 1991; Walsh, 1995). Thus, the cognitive approach to leadership and relationships can be conceptualized as knowledge structures comprised of generalized beliefs about leaders, followers, and relationships between the two (i.e., social categories), as well as evaluations and motives targeted at specific relationships with a specific leader or follower.

Generalized Implicit Theories

One area of cognitive research in management is the social information processing approach to leadership. This literature takes a specific focus on individuals' implicit theories for both leaders (i.e., ILTs) and followers (i.e., IFTs). Implicit theories differ from explicit scientific theories that are created by researchers via data and scientific observation (Epitropaki et al.,

2013; Levy et al., 2006; Rosenberg & Jones, 1972; Sternberg, 1985). Implicit theories are lay theories constructed and residing within individuals and, as such, represent subjective reality and perceptions versus objective reality. Implicit theories are comprised of knowledge structures and schemata for a given target (i.e., leaders for ILTs and followers for IFTs) through which all target-relevant information is processed, regardless of whether or not the interpretive frame is objectively accurate (Shondrick & Lord, 2010; Sy, 2010; Weick, 1995). The knowledge structures and schemata that comprise implicit theories are developed based on prior experiences and socialization processes with the given target. Any interaction with an individual resembling a target category will activate the implicit theory (Epitropaki & Martin, 2004; Epitropaki et al., 2013; Kenney et al., 1996).

ILTs and IFTs are implicit theories of the traits and abilities that *should* characterize leaders versus non-leaders (Engle & Lord, 1997; Epitropaki, 2000; Epitropaki & Martin, 2005; Lord et al., 1984; Lord & Maher, 1991) and followers versus non-followers (Sy, 2010). Empirical literature demonstrates that leaders' and followers' ILTs and IFTs drive perceptions of their relationships, including leader and follower LMX, liking for leader and follower, and trust in the leader (Coyle et al., 2013; Epitropaki, 2000; Epitropaki & Martin, 2005; Epitropaki et al., 2013; Sy, 2010; 2013; Topakas, 2011). Further, within person congruence in implicit theories and explicit attributes of the target drives corresponding LXM perceptions, with implicit-explicit congruence positively predicting LMX (Epitropaki, 2000; Epitropaki & Martin, 2005; Epitropaki et al., 2013; Topakas, 2011). Beyond this individual lens, the relationship sciences have examined implicit theories in the form of ITRs, with a specific focus on the beliefs that comprise ITRs (e.g., Eidelson & Epstein, 1982; Fengler, 1974; Fletcher & Kininmonth, 1992; Hendrick & Hendrick, 1986; Hobart, 1958; Knee, 1998; Rubin, 1970; Spaulding, 1970; Sprecher & Metts,

1989). Epitropaki et al. (2013) and Thomas et al. (2013) identify growth and destiny beliefs from the relationship sciences as relevant for the leadership literature.

Growth beliefs specify that successful dyadic relationships are "cultivated and developed" gradually over time to reach an ideal state (Knee, 1998, p. 360). Growth theorists approach relationships with the motivation to develop the relationship to achieve relational goals, such as mastering relational challenges, seeking feedback and interpreting feedback informatively, and becoming interdependent with the relationship partner (Dweck et al., 1995; Knee, 1998; Knee et al., 2003). The system of growth beliefs predisposes individuals to make attributions of effort and controllability in relationships in conjunction with relationship attributions of less stability (Knee et al., 2003). Additionally, growth theorists typically demonstrate approach-oriented coping strategies when faced with relational conflict (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004).

Destiny theorists specify an evaluative orientation in that "potential relationship partners are either meant for each other or not" as diagnosed from the outset of the relationship (Knee, 1998, p. 360), with early signs of relationship struggles signaling that the relationship is not meant to be. Destiny theorists approach relationships with an outcome-driven motivation to evaluate and diagnose the relationship to achieve relational goals, such as judging relationship partners, determining the viability of the relationship from the start, and ultimately finding the ideal relationship (Dweck et al., 1995; Knee, 1998; Knee et al., 2003). The system of destiny beliefs begets attributions of stability in relationships, in addition to relationship attributions of lower effort and controllability (Knee et al., 2003). When faced with relational conflict, destiny theorists are more likely to respond negatively to feedback and use avoidant coping strategies (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004).

These associations held even when destiny theorists idealized their partner; however, in these instances, destiny theorists were more likely to give in to arguments as a means to avoid them (Franiuk et al., 2002).

Destiny and growth beliefs are considered independent of one another in romantic relationships (e.g., Knee, 1998: r = -.01 and r = -.07; Knee et al., 2001; Knee et al., 2003). Theoretically, low levels of growth beliefs indicate that an individual does not believe problems can be overcome in the relationship; however, this does not equate to the belief that relationships can be diagnosed from the outset (i.e., destiny beliefs). Similarly, low levels of destiny beliefs indicate that an individual does not believe that relationships can be diagnosed from the outset; however, this does not equate to the belief that relationship problems can be overcome (i.e., growth beliefs). Empirical evidence suggests that destiny theorists that idealize their partners are more satisfied with their relationship compared to growth theorists; however, destiny theorists are less satisfied than growth theorists when they do not idealize their partner (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2001; Knee et al., 2003).

Target-Specific Cognition

For target-specific cognition, I focus on relational motives that comprise a specific leader-follower relationship. The workplace relationship literature, and LMX more specifically, has predominantly adopted a social exchange perspective of relationships at work where the exchange motive drives relationship quality. However, communal relationship theory in social psychology identifies two, primary motives in high-quality relationships – exchange *and* communal motives (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982; Mills et al., 2004). A communal-oriented motive prioritizes the other relationship partner's welfare without an explicit expectation of a comparable return in benefits in the relationship. This is in

contrast to the exchange motive where benefits are dispersed in the relationship with the expectation that there will be an immediate, comparable return in benefits in the relationship.

In this dissertation, a communal motive that is partner-specific is of interest, otherwise known as communal strength in the relationship (Le et al., 2018; Mills et al., 2004). Empirical findings from romantic and platonic relationships demonstrate that increased communal strength in the relationship is linked to higher perceptions of relationship satisfaction for both relationship partners (Le et al., 2018; Lemay et al., 2007; Mills et al., 2004). Individuals in communal relationships are more likely to engage in helping behavior toward their partner, welcome emotion expression in the relationship, and keep track of their partner's needs even if they cannot help when compared to partners in pure exchange relationships (Clark et al., 1986; Clark et al., 1987; Clark & Taraban, 1991; Mills & Clark, 2013; Williamson & Clark, 1989; 1992). However, this does not suggest that reciprocity is completely absent from communal relationships; rather, the expectation for reciprocity involves perceptions of concern and responsiveness over time versus immediate, comparable benefits (Mills & Clark, 2013).

Emotional Tone in the Leader-Follower Relationship

Research examining the influence of experienced emotion on the development and maintenance of leader-follower relationships is nascent in the LMX literature in comparison to the more voluminous literature on emotion and leadership in general (for reviews on leadership and emotion in general, see Gooty et al., 2010; Van Knippenberg & Van Kleef, 2016). Most work on experienced emotion in leader-follower relationships is theoretical in nature (Ashkanasy, 2002; Ashkanasy & Jordan, 2008; Ballinger & Rockmann, 2010; Cropanzano et al., 2017; Dasborough et al., 2009; Tse et al., 2016), with the exception of Gooty and colleagues' (2019) work on leader-follower shared emotional tone and LMX (note that Guarana & Barnes,

2017, examined leader and follower experience of hostility and LMX development; however, hostility was elicited from lack of sleep, not from the relationship itself, and, thus, does not align with my focus on predictors derived from the relationship). I draw from Gooty et al. (2019) and the literature on both positive and negative emotions in the relationship sciences (e.g., Baker et al., 2014; Graham et al., 2008; Gottman et al., 1998; Gottman & Levenson, 1992; Kennedy-Moore & Watson, 2001; Laurenceau et al., 1998; Pennebaker & Francis, 1996; Ryff & Singer, 2000; Stephens et al., 2013) to explain the relational function of emotional tone.

The leader-follower relationship serves as a source for emotion elicitation as both positive and negative emotions repeatedly arise in the relationship (Cropanzano et al., 2017). As the relationship progresses, the repeated occurrences of positive and negative emotions culminate into an overarching, relatively stable emotional tone of the relationship (Berscheid et al., 1989; Cropanzano et al., 2017; Gooty et al., 2019). This emotional tone is comprised of the social history of the relationship (e.g., met/unmet cognitive expectancies and both personal and interpersonal goals derived from the relationship: Berscheid et al., 1989; Cropanzano et al., 2017; Gooty et al., 2019; Lazarus & Folkman, 1984; Van Kleef, 2009; 2016). As noted earlier, Gooty and colleagues (2019) demonstrated that leader-follower convergence in positive emotional tone is positively related to LMX. However, they found no association between convergence in negative emotional tone and LMX. I extend this work on emotional tone and LMX by taking an individual-level lens (i.e., no examination of convergence) from both the leader and follower perspective. Based on the above review of the literature in both management and the relationship sciences, I now present hypothesis development for growth beliefs, destiny beliefs, communal strength, and emotional tone in leader-follower relationships.

Hypothesis Development: Implicit Theories of Relationships and LMX

In the context of the leader-follower relationship, I posit that two, underlying assumptions that contribute to the above findings for romantic relationships fundamentally change when considering the work environment and the roles of leader and follower. First, romantic partners are able to choose with whom they engage in a romantic relationship. Second, and in line with the first assumption, romantic partners are able to choose when they want to end a romantic relationship. For leader-follower relationships, freedom of choice is not necessarily possible, especially for the follower as they do not get to choose their leader. While leaders may have some agency in choosing their followers, leaders are still unlikely to have a complete understanding of who their follower is and the type of relationship that will ensue prior to actually working with the follower. Further, ending the leader-follower relationship is much more than just ending the relationship as it typically entails some form of job loss or displacement. Using this leader-follower contextualization of assumptions driving growth and destiny beliefs in ITRs, I now present hypotheses for leaders and followers that share destiny beliefs and growth beliefs (respectively) and their perceptions of LMX.

Destiny Beliefs in Leader-Follower Implicit Theories of Relationships

Leaders and followers that approach relationships with the fixed mindset that comprises destiny beliefs will likely experience increased frustration when faced with relational incompatibilities early in relationship development. The potential for such leader-follower incompatibilities are demonstrated in the person-supervisor fit literature (e.g., dissimilarity in values, personality, goals, etc.: Colbert, 2004; Krishnan, 2002; Kristof-Brown, Zimmerman, & Johnson, 2005; Schaubroeck & Lam, 2002; Witt, 1998). Here, I expect the likelihood for early relational incompatibilities to be higher in leader-follower relationships compared to personal

relationships as, like any relationship, the synchronization of two, different human beings into habitual routines forces individuals to bridge their differences. However, contrary to personal relationships, leaders and followers do not typically have the agency to select a more similar person as their relationship partner. Further, they do not have the agency to end the relationship and move on to the next partner that could potentially be "ideal" when incompatibilities arise (i.e., destiny theorists cannot enact their typical response of exiting the relationship; Le et al., 2010). Thus, while I suspect that destiny theorists in their ideal leader-follower relationship will experience greater LMX quality (in line with findings from romantic relationships), based on the above contextualization of ITRs to the leader-follower relationship, I expect the likelihood for a destiny theorist to find the ideal leader-follower relationship to be smaller than what is typically seen for personal relationships as leaders and followers do not have the agency to select and/or move through relationships in the workplace.

As such, leaders and followers that share high levels of destiny beliefs will be aligned in their inclination to make early judgments of incompatibilities in the relationship and jointly use a diagnostic orientation of the relationship from the outset. Shared destiny beliefs will align both the leader's and follower's intentions and coping behaviors when uncovering incompatibilities in the relationship (Byrne, 1961; 1971; 1997) such that they are both more likely to avoid the relationship when incompatibilities exist (Dweck et al., 1995; Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004). Additionally, this fixed mindset does not lend itself to providing or receiving feedback within the leader-follower relationship (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004). Further, when both the leader and follower separately engage in avoidant behavior, they will mutually reinforce one another in their initial perceptions of incompatibility as the avoidant behaviors can become

another source for perceptions of relational incompatibility. As such, leader-follower shared destiny beliefs at high levels should intensify the negative effect on LMX more so than when one relationship partner alone is a destiny theorist.

Thus, I hypothesize that leaders and followers that share high levels of destiny beliefs will generally have lower quality LMX relationships via multiple mechanisms. From an exchange perspective, leaders and followers that share high levels of destiny beliefs also share attributions of low effort and controllability in the relationship, as well as the tendency to engage in avoidant behavior when relational incompatibilities arise (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004). As such, they will be less likely to put forth the effort required for the active, approach-oriented exchange of extra-role commodities on a global level as defined in social exchange LMX (Bernerth et al., 2007). Further, leaders' and followers' perceptions of the extra-role commodities in their relationships, such as affect, loyalty, contribution, and professional respect identified in multidimensional LMX (Liden & Maslyn, 1998), will be filtered through their initial diagnosis of the relationship. Given the likelihood for initial incompatibilities between leaders and followers and the fixed mindset that characterizes destiny relationship beliefs (i.e., relational inflexibility), I expect multidimensional LMX to also be lower for leaders and followers that share high levels of destiny beliefs.

Conversely, leaders and followers sharing low levels of destiny beliefs will enter a relationship without a shared diagnostic orientation. Shared destiny beliefs at low levels indicate that the leader and follower are not concerned with initial judgments or determining the viability of the relationship from the start (Knee et al., 2003). As such, I expect that leaders and followers that share low levels of destiny beliefs will have greater LMX quality than leaders and followers that share high levels of destiny beliefs. The lack of focus on initial judgement and comparing

the observed relationship to an "ideal" relationship reduces the likelihood for negative biases to creep into the relationship, which may preclude engaging in active exchange behaviors at both the global (i.e., social exchange LMX) and specific (i.e., multidimensional LMX) levels. In sum:

Hypothesis 1: Social exchange LMX for a) leaders and b) followers is lower when both parties are in agreement at a high level of destiny belief than when both parties are in agreement at a low level of destiny belief.

Hypothesis 2: Multidimensional LMX for a) leaders and b) followers is lower when both parties are in agreement at a high level of destiny belief than when both parties are in agreement at a low level of destiny belief.

Growth Beliefs in Leader-Follower Implicit Theories of Relationships

Due to the lack of agency in selecting and exiting a workplace relationship, growth beliefs are particularly well suited for developing and maintaining relationships in the workplace. This is due to the growth theorist's orientation to approach relationships with developmental goals, culminating in attributions of controllability and effort in the relationship (Knee et al., 2003). Additionally, the leader-follower relationship is an important source for on the job feedback (e.g., Elicker et al., 2006; Gaddis et al., 2004; Sparr & Sonnentag, 2008). Given that growth theorists are more likely to feel positively about providing and receiving feedback (Franiuk et al., 2002; Franiuk et al., 2004; Knee, 1998; Knee et al., 2003; Knee et al., 2004), leaders and followers with growth beliefs are more likely to effectively use the leader-follower relationship for feedback purposes. Further, leaders and followers that share high levels of growth beliefs will approach the relationship with intentions to cultivate the relationship in the face of inevitable stressors and incompatibilities in the workplace. In other words, shared growth beliefs at high levels will align both the leader's and follower's intentions and coping behaviors

in the relationship (Byrne, 1961; 1971; 1997), culminating in perceived similarity in valuing growth and learning and a shared goal to approach and cultivate the relationship. These shared cognitions, in turn, will promote higher quality LMX.

From an exchange perspective, leaders and followers that share high levels of growth beliefs will also share attributions of controllability and effort in the relationship (Knee et al., 2003). These attributions will increase the likelihood for leaders and followers to put forth effort in the relationship in the form of global exchange behaviors (i.e., social exchange LMX: Bernerth et al., 2007). Further, engaging in higher quality global exchange behaviors allows both the leader and follower to work towards the shared goal of cultivating the relationship that characterizes the growth belief system (Knee, 1998; Knee et al., 2001; Knee et al., 2003). Such alignment will also mutually reinforce leader and follower perceptions of the extra-role commodities being exchanged. For example, the effort that goes into growing and cultivating a relationship directly aligns with perceptions of contribution to the relationship and is likely to increase perceptions of loyalty, respect, and affection in the relationship (i.e., dimensions of multidimensional LMX: Liden & Maslyn, 1998). Further, such perceptions are likely to persist even in times of stress as growth theorists are likely to view organizational stressors that manifest in the leader-follower relationship as opportunities for learning and development in the relationship (Knee, 1998; Knee et al., 2001; Knee et al., 2003),

Conversely, leaders and followers sharing low levels of growth beliefs will enter a relationship without a shared orientation towards developing and cultivating the relationship (Knee, 1998; Knee et al., 2001; Knee et al., 2003). Shared growth beliefs at low levels indicate that the leader and follower are not concerned with relationship improvement and mastery over time (Knee et al., 2003). Given that relational incompatibilities and organizational stressors are

inevitable in the workplace, a lack of focus on remediation in the leader-follower relationship when incompatibilities and stressors arise will lead to decreased LMX quality compared to leaders and followers that prioritize remediation for the purpose of relationship improvement (i.e., high growth beliefs: Knee et al., 2003). From an exchange perspective, leaders and followers that share low levels of growth beliefs will be less likely to engage in high quality, social exchange at a global level (i.e., social exchange LMX) as they do not approach relationships with the drive to develop and improve the relationship. Indeed, a lack of growth beliefs will likely be more predictive of engaging in lower quality, economic exchange behaviors in order to fulfill task requirements as growing the relationship itself is not a priority. Thus, extra-role commodities, such as affect, loyalty, contribution, and respect (Liden & Maslyn, 1998), will be of less importance and lower quality multidimensional LMX will ensue. In sum:

Hypothesis 3: Social exchange LMX for a) leaders and b) followers is higher when both parties are in agreement at a high level of growth belief than when both parties are in agreement at a low level of growth belief.

Hypothesis 4: Multidimensional LMX for a) leaders and b) followers is higher when both parties are in agreement at a high level of growth belief than when both parties are in agreement at a low level of growth belief.

Hypothesis Development: Communal Strength and LMX

Communal strength in the leader-follower relationship can take a variety of forms. For example, leaders and followers may provide extra-role commodities to one another simply to improve each other's well-being. Additionally, communal strength may drive leaders' and followers' contributions to one another; however, the motivation is to truly help the leader or follower succeed for the sake of the individual, not because there is an expectation for a

comparable return in benefits. At the dyad-level, communal relationship theory has suggested that the strongest communal relationships are typically comprised of partners similar in high communal strength (Clark & Mills, 2011; Le et al., 2018), with communal strength from one partner often begetting communal strength from another partner (Le et al., 2018; Murray et al., 2006; Reis et al., 2004; Wieselquist et al., 1999). Le and colleagues (2018) meta-analysis on communal motivation used the actor-partner independence model to investigate similarity in actor and partner communal motivation and the effects on personal and relationship wellbeing (with relationship wellbeing operationalized as satisfaction and experienced positive versus negative emotions). Indeed, they found that relationship partners tended to be similar in communal strength; however, there were significant levels of heterogeneity in these findings, suggesting the presence of moderators. Further, they found that high communal strength from one relationship partner created greater personal and relationship wellbeing in the other partner.

In sum, I expect that leaders and followers that share high levels of communal strength in the relationship will perceive higher LMX quality. From an exchange perspective, leaders and followers that share high levels of communal strength will be more likely to engage in the global exchange of extra-role commodities as a means to prioritize their partner's needs and help them succeed. In terms of specific extra-role commodities, leaders and followers will perceive higher levels of contribution from one another as they are willing to go the extra mile for each other, even when there is no instant gratification for the self beyond the satisfaction of caring for another person. Leaders and followers that share high levels of communal strength will also feel as if their relational needs have been met as both partners actively prioritize meeting each other's needs (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982; Mills et al., 2004)

culminating in increased loyalty, respect, and affection for one another (i.e., dimensions of multidimensional LMX: Liden & Maslyn, 1988).

Conversely, leaders and followers that share low levels of communal strength will have lower LMX quality than leaders and followers that share high levels of communal strength. For multidimensional LMX, greater dissatisfaction in the relationship may ensue when individuals feel as if their relational and professional needs are either not prioritized or only prioritized when there is an immediate benefit for the dyad partner. Thus, the lack of a communal motive might adversely impact the exchange of extra-role commodities like affection, loyalty, contribution, and respect in the relationship (Liden & Maslyn, 1988). From a global exchange perspective, a leader and follower can engage in exchange behaviors using the self-focused, exchange motive versus the other-oriented, communal motive. However, I hypothesize that leaders and followers that share low levels of communal strength will still report lower quality global social exchange than leaders and followers that share high levels of communal strength as the incorporation of the communal motive in exchange behavior allows for more specialized exchanges that can produce greater benefits for the target other given the other-oriented focus of communal strength.

Hypothesis 5: Social exchange LMX for a) leaders and b) followers is higher when both parties are in agreement at a high level of communal strength than when both parties are in agreement at a low level of communal strength.

Hypothesis 6: Multidimensional LMX for a) leaders and b) followers is higher when both parties are in agreement at a high level of communal strength than when both parties are in agreement at a low level of communal strength.

Hypothesis Development: The Interplay of Emotional Tone and Relational Cognition

Bradbury and Fincham (1987) critiqued the relationship sciences for the lack of integration of cognition and emotion in predicting relationship quality given the empirical and theoretical evidence for the interdependence of cognition and emotion in general (as noted above in the appraisal process of emotion elicitation: Lazarus & Folkman, 1984). This critique also holds for the management literature as no empirical examination of the simultaneous effect of emotion and cognition in leader-follower relationships exists. This is problematic as the separate investigation of these two, interrelated domains (i.e., cognition and emotion) in relationships likely "lends more credence to their distinction than is otherwise warranted" (Bradbury & Fincham, 1987, p. 60). In response to this critique, along with the lack of research on emotion and LMX in the management domain, I examine the relative importance of growth beliefs, destiny beliefs, communal strength, and emotional tone for predicting leader and follower LMX.

I expect that relationship-specific constructs (i.e., communal strength and emotional tone) will be relatively more important for making an evaluation of a specific relationship. Following the top down structure of the social cognition literature in which all social information is processed through organized knowledge structures in order to simplify more complex information (Epitropaki et al., 2013; Galambos et al., 1986; Lord & Emrich, 2001; Lord & Maher, 1991; Walsh, 1995), the growth and destiny beliefs that comprise ITR-L and ITR-F are more distal cognitive frameworks and may not be as important for judgements of LMX when compared to proximal constructs derived of the focal relationship itself. Within the proximal constructs of communal strength and emotional tone, I expect that cognition is relatively more important than emotion in driving perceptions of LMX given the necessity of cognitive appraisal

for the experience of discrete emotion (e.g., Lazarus, 1982; Lazarus & Folkman, 1984). Thus, I expect communal strength to be relatively more important than emotional tone. In sum:

Hypothesis 7: Relationship-specific cognition (communal strength) and emotion (positive and negative ETI) will tend to be more important predictors of a) LMSX and b) LMX-MDM for both leader and followers compared to ITRs.

Hypothesis 8: Relationship-specific cognition (communal strength) will tend to be a more important predictor of a) LMSX and b) LMX-MDM for both leaders and followers compared to relationship-specific emotion (positive and negative ETI).

Hypothesis Development: Emotional Tone Ratio in LMX Relationships

I draw from the balanced affect model (Gottman, 1994; Gottman et al., 1998; Gottman & Levenson, 1992) to explain the social-cognitive function of both positive *and* negative emotions for the leader-follower relationship. This holistic perspective contrasts with the symmetrical perspective of emotion that is often adopted in the organizational sciences, where negative and positive emotions are pit against one another in a manner that devalues the experience of negative emotions (Lindebaum & Jordan, 2012; 2014). In line with the symmetrical perspective, a leader-follower relationship characterized by all negative emotions is devoid of goal congruency (Berscheid et al., 1989; Gooty et al., 2019; Lazarus & Folkman, 1984). Thus, such a relationship is largely destructive to key relational and individual needs and will hinder LMX quality. However, a leader-follower relationship that is completely devoid of negative emotion is unrealistic to the human experience. Indeed, Gottman et al. (1998) liken such a relationship to the film, "*The Stepford Wives* in which suburban husbands conspire to murder their wives and replace them with cheerful robot copies" (p. 9).

The study of emotion in the workplace is predicated on the notion that the work environment, including the leader-follower relationship itself, produces affective events that elicit emotion across the range (Cropanzano et al., 2017; Weiss & Cropanzano, 1996). Further, the relationship sciences have demonstrated that negative emotion experience in relationships signals that relational needs are not being met (Berscheid et al., 1989). Thus, the crystalized negative emotional tone of a relationship contains valuable information about relationship partners' interpersonal expectancies and goals from which social boundaries can be learned and respected, translating into increased trust and closeness among relationship partners (Graham et al., 2008; Kennedy-Moore & Watson, 2001; Laurenceau et al., 1998; Pennebaker & Francis, 1996; Ryff & Singer, 2000). In sum, a leader-follower relationship that lacks any negative emotion is also not ideal for LMX quality.

Across a series of studies, Gottman and colleagues (Gottman, 1994; Gottman et al., 1998; Gottman & Levenson, 1992) found that a functional ratio of positive to negative emotional interactions is key for flourishing relationships. This body of work demonstrates that the ratio of positive to negative emotional interactions is predictive of stability in the marriage and can ultimately predict divorce, with stable martial partners keeping a ratio of positive to negative emotional interactions at about 5 to 1 versus .8 to 1 for unstable partners. I also expect that the ratio of positive to negative emotional tone for leader-follower relationships will be related to LMX. Further, I expect that relationships with a higher rate of positive emotion experience to negative emotion experience will have higher LMX quality given the literature on the salience of negative emotion compared to positive emotion (e.g., Baumeister et al., 2001; Dasborough, 2006). For example, Dasborough's (2006) qualitative inquiry on leader emotion expression

found that leader negative emotions were more salient for follower relational perceptions even when followers reported that positive emotions were more frequent from their leader. Thus:

Hypothesis 9: Social exchange LMX and multidimensional LMX will increase for a) leaders and b) followers as the ratio of positive to negative emotional tone in the leader-follower relationship increases.

CHAPTER III

METHODOLOGY

Due to the contextualization of measures from personal (i.e., romantic, platonic, and familial) relationships to the leader-follower relationship, validation work is necessary for the measurement used in my dissertation. As such, I propose two studies. In the first study, I perform psychometric testing on the contextualized measures. The second study will test the hypotheses for my dissertation research.

Study 1: Adapting Relationship Science Scales to the Workplace Context

Although I am not introducing a new construct to the social sciences literature, I am contextualizing constructs that are typically examined in the relationship sciences (with ITRs studied in romantic relationships and communal strength studied across a range of personal relationships) to the leader-follower relationship. Thus, I must conduct psychometric testing, including gathering evidence for the discriminant validity of the contextualized constructs to relevant constructs in the management literature (where relevant constructs exist). Following recommendations from Heggestad and colleagues' (2019) review and critique of scale adaptation in the organizational sciences, I clearly explain the contextualization of the items in the original scales to the leader-follower relationship. To further understand the relevancy of the contextualized items for the leader-follower relationship, I examine item-level statistics (e.g., inter-item correlations, and corrected item total correlations) while considering the content of the items in light of theory (e.g., Hinkin, 1995; 1998). Further, I conduct confirmatory factor analyses (CFAs) and compare parameter estimates to those from the original scale. Such a comparison allows for the inference that the contextualized scale is operating similarly to the original scale (Heggestad et al., 2019).

Additionally, for communal strength, I gather evidence for discriminant validity with social exchange and multidimensional LMX. I expect to find evidence for discriminant validity as communal strength is theoretically different from the strength of exchange behaviors in the leader-follower relationship in that there is no cognitive expectation for an immediate return in benefits (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982; Mills et al., 2004). Next, I discuss the research design and data collection procedures for Study 1.

Study 1: Research Design and Data Collection Procedures

I used Amazon's Mechanical Turk (MTurk) platform to collect data from 200 followers and 200 leaders (per minimum sample size requirements for conducting confirmatory factor analysis: Hinkin, 1998; Hoelter, 1983). The MTurk platform allows researchers (or "requestors" in MTurk language) to collect data from a pool of "workers" in exchange for financial compensation. Given the convenience of the MTurk platform, online panel data is ideal for researchers engaging in psychometric testing and/or pilot studies (i.e., multi-study research; Porter et al., 2019). Notably, the use of online panel data has some controversy, including issues with the representativeness of the sample and the likelihood for insufficient effort from participants (e.g., Chandler et al., 2014). However, as the use of online panel data has become more popular (e.g., MTurk started in 2005), accumulated evidence has emerged to address such controversies (for reviews, see Bartneck et al., 2015; Porter et al., 2019). For example, a recent meta-analysis from Walter and colleagues (2018) compared online panel data to data sourced from more traditional mechanisms across 90 independent samples and 32,121 individuals. They found that the two sources of data demonstrated comparable effect sizes, with a reliability generalization analysis demonstrating comparable psychometric soundness.

In order to recruit both leaders and followers, I created two separate Human Intelligence Tasks (HITs) on the MTurk platform. One HIT linked to an online survey that was specific to leaders and the other HIT linked to an online survey specific to followers. I created a worker qualification through MTurk prohibiting participants from taking both surveys (i.e., participants that took the leader survey were not able to access the follower survey). The primary criteria for participation in both surveys are: 1) at least 21 years of age, 2) full time employment with an organization (35+ hours), and 3) the participant must have an established relationship with either their current leader or follower (depending on the rater) of at least six months. The third criterion is important because this dissertation examines accumulated experiences within the leader-follower relationship where perceptions of relationship-specific cognition emerge as stable, crystalized phenomena at the individual-level. As such, perceptions of new leader-follower relationships are not of interest for this study as insufficient time has passed for such stable, crystallized phenomena to emerge. While the LMX literature demonstrates that the emergence of stabilized LMX perceptions can occur as early as two months into the relationship (Bauer & Green, 1994), I err on the side of conservatism by collecting data from participants in established leader-follower relationships with a minimum tenure of six months.

Following best practices for online panel data (see Porter et al., 2019 for a review), I used participant qualifications on the MTurk platform where possible, including qualifications restricting access to my surveys to only workers with profiles listing full time employment and a 95% approval rate from their participation in previous HITs (i.e., only workers with a "good reputation" for adequately completing prior HITs in terms of attentiveness, sufficient effort, etc.). For the eligibility requirements that could not be designated as qualifications on the MTurk platform, I included initial survey questions asking for the participant's age, their role in the

organization (i.e., leader or follower), and length of target leader-follower relationship (as well as employment status as a secondary check for full time employment). If a participant responded to these questions in a manner that did not align with my eligibility requirements (e.g., under the age of 21), they could not proceed to the rest of the survey questions. If participants met the above eligibility requirements and completed the survey, they were compensated $1.20. To determine this compensation rate, I piloted the online survey with thirteen PhD students and found that survey completion took no more than 10 minutes. As such, $1.20 is a fair wage in comparison to the U.S. Federal minimum wage of $7.25 per hour at the time of the study.

After data collection, I used the following techniques to identify potential issues in the sample. First, I examined missing data, with both the follower and leader datasets demonstrating less than 1% of missing data. Following best practices from Newman (2014), I first identified the type of missing data present in both the leader and follower datasets as item-level missingness. In Study 1 data, participants failed to respond to no more than two items from the entire survey, with the majority of respondents only failing to respond to 1 item. Thus, in order to deal with the item-level missingness in my dataset, I used $\text{mean}_{(\text{across items})}$ imputation (Bernaards & Sijtsma, 2000; Newman, 2009; 2014; Roth et al., 1999) wherein I imputed the mean of all available items in a measure for a particular participant. Following best practice recommendations from Aguinis and colleagues (2013) for identifying potential outliers, I used single construct techniques where I visually examined box plots and followed with a standard deviation analysis. Then, I used a multiple construct technique by visually examining scatterplots for construct pairings. After performing these techniques, I determined that there were no significant outliers in the Study 1 data. Thus, the sample for Study 1 data analysis is comprised of 200 followers and 200 leaders, with a combined sample of 400 participants.

Of the leaders, 64% were male, with the majority ranging in age from 25-34 (40.50%), closely followed by 35-44 years of age (32.50%). The majority of leaders were Caucasian (62%), followed by Asian (21.50%), and 85% reported their education level at a bachelor's degree or higher. The leaders came from a range of industries, with most leaders working in the professional, scientific, and technical services industry (31.50%). Leaders were instructed to focus on a current, target follower to answer all survey questions and the average relationship tenure for this focal follower was 4.21 years. In the follower sample, 56.50% were male, with the majority ranging in age from 25-34 (43%), closely followed by 35-44 years of age (34%). Most followers were Caucasian (76.50%) and 69% reported their education level at a bachelor's degree or higher. The followers also came from a range of industries, with the majority working in the professional, scientific, and technical services industry (33%). Followers were instructed to focus on their current supervisor to answer all survey questions and the average relationship tenure with the current supervisor was 5.22 years. For a complete description of sample demographics, see Table 3.1. Next, I discuss the measurement used in Study 1.

Study 1 Measurement

The original relationship sciences measures used in my dissertation have undergone testing with a range of romantic, platonic, and familial relationships. I used the following general procedures for contextualizing these measures to the leader-follower relationship. First, I adapted the focal referent (e.g., romantic partner) to either a supervisor, subordinate, or supervisor-subordinate relationship referent (depending on the item). Second, I adapted the context referent (e.g., marriage) to the context of the workplace. The original items for each measure and all adaptations are included in Appendix A. Now, I provide specific information about each measure used in Study 1, including specific adaptations for the ITR and communal strength measures.

Implicit Theories of Relationships: Growth and Destiny Beliefs. A 22-item version of the growth and destiny beliefs measure (11 items for growth beliefs and 11 items for destiny beliefs) is more commonly used in the current relationship sciences literature (Knee et al., 2003). This measure demonstrates a two-factor structure (one factor for growth beliefs and one factor for destiny beliefs: Knee et al., 2003). The instructions for this measure read, "Please indicate the extent to which you agree with the following statements." The response format uses a seven-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*).

Following the procedures outlined above, I contextualized the survey questions to the supervisor-subordinate relationship. A sample contextualized item for the destiny belief scale is, "Supervisors and subordinates are either compatible or they are not." A sample contextualized item for the growth belief scale is, "The ideal working relationship with a supervisor/subordinate develops gradually over time." One item from the growth belief scale of the original ITR measure (Knee et al., 2003) was considered inappropriate for the context of the leader-follower relationship: "Arguments often enable a relationship to improve" (note that this item is not reverse-scored). This item and its central focus on arguments as constructive does not align with typical workplace norms and display rules (Ashforth & Humphrey, 1993; Brotheridge & Grandey, 2002; Diefendorff & Richard, 2003; Rafaeli & Sutton, 1987; 1989; Schaubroeck & Jones, 2000); thus, it was omitted from the contextualized version of the scale. See Appendix A for the full measure as it was developed for romantic relationships and the adapted version for leader-follower relationships.

Communal Strength. Mills et al. (2004) developed and validated a communal strength questionnaire across a series of six studies including familial, platonic, and romantic relationships. However, since the communal strength measure was developed independently

from theory around partner-specific exchange, the original communal strength measure does not explicitly state the cognitive expectations for communal relationships versus exchange relationships. This is problematic when measuring both partner-specific communal and exchange motivations simultaneously as the implicit cognitive assumptions must be clearly stated for research participants to differentiate the distinct relational motivations. I address this issue for the communal strength measure by contextualizing it to the leader-follower relationship with clear language to identify the communal motive: no expectation that benefits will be reciprocated by the relationship partner (i.e., a fundamental tenet of communal relationship theory: Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982). Additionally, one item from the original measure was omitted from the adapted scale for leader-follower relationships: "How far would you be willing to go to visit ——?" While this item may be relevant for personal relationships where individuals in different neighborhoods/cities must travel to see one another, this is not the case for workplace relationships. See Appendix A for the full measure as it was originally developed and the adapted measure for the leader-follower relationship.

The contextualized communal strength measure uses the original instructions. The instructions are, "Keeping in mind the specific person, answer the following questions. Select one answer for each question on the scale from 0 = *not at all* to 10 = *extremely* before going on to the next question." A sample contextualized item is, "How large a benefit would you be likely to give your supervisor/subordinate, even if they do not reciprocate the benefit?"

Multidimensional LMX. I use the eleven-item LMX-MDM measure as developed and validated by Liden and Maslyn (1998). Liden and Maslyn generated items for four dimensions of LMX – affect, loyalty, contribution, and professional respect. While this measure can be used as a multidimensional scale, Liden and Maslyn found evidence for a higher order factor, indicating

that the measure can be used as a composite of all items (also supported by Joseph et al., 2011). A sample item is "My supervisor/subordinate would come to my defense if I were attacked by others." Participants used a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) and were instructed to think of their supervisor/subordinate when responding to the items.

Social Exchange LMX. I use the eight-item LMSX measure developed and validated by Bernerth and colleagues (2007). Bernerth et al. provide evidence for convergent and discriminant validity of the LMSX measure with the LMX-MDM. A sample item is, "If I do something for my manager/subordinate, he or she will eventually repay me." Similar to the LMX-MDM, participants are instructed to think of their supervisor/subordinate and respond using a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).

Data Analysis for Study 1

Now, I discuss the analytical technique used in Study 1. First, I calculated basic descriptives, reliabilities, and bivariate correlations with all variables for both the combined sample and the leader and follower data separately. Then, I performed confirmatory factor analyses (CFAs) on the measures adapted from the relationship sciences literature (i.e., growth and destiny beliefs, communal strength) to see if the concepts replicate using the combined leader and follower sample (per best practices for scale adaptation: Heggestad et al., 2019). In this respect, I imposed a hypothesized factor structure based on the relationship sciences literature (Hinkin, 1995; 1998; Long, 1983; McDonald & Marsh, 1990; Pedhazur & Schmelkin, 1991) to examine the goodness of fit of the measurement models using the lavaan package in R 3.6.2. For goodness of fit indices, I examined the chi-squared, root-mean-square-errors-of-approximation (RMSEA), comparative fit index (CFI), and Tucker-Lewis index (TLI) values to evaluate the best fitting measurement model.

Discriminant Validity Analyses

I used the lavaan package in R 3.6.2 to conduct CFAs to examine the discriminant validity of communal strength with LMSX and LMX-MDM. Following guidelines from Hinkin (1995; 1998) and Pedhazur & Schmelkin (1991), I examined the correlations between communal strength and LMX variables as a starting point. While I expect these constructs to be correlated to one another, I do not expect them to be so highly correlated as to indicate redundancy. Next, following the approach outlined by Fornell and Larcker (1981), I examine the average variance extracted (AVE) from confirmatory factor analyses of communal strength, LMSX and the four dimensions of LMX-MDM. The AVE estimates the amount of variance captured by a construct relative to measurement error. For discriminant validity, the Fornell-Larcker criterion requires the square root of the AVE for each construct to be greater than the correlation between the constructs. Further, I compared the goodness of fit indices of a single-factor model versus models reflecting the hypothesized factor structures, as increased goodness of fit for the single-factor model will also provide evidence that the constructs are not distinct (Hinkin 1995; 1998).

Measurement Equivalence Analyses

Finally, I performed measurement equivalence analyses (Schmitt & Kuljanin, 2008; Vandenberg & Lance, 2000) on the newly introduced measures of growth beliefs, destiny beliefs, and communal strength to determine if there is equivalence of measures across the leader and follower groups. To perform measurement equivalence analyses, a series of steps are followed, starting with an omnibus test that examines the equivalence of the covariance structure of two groups as Step 0 (Schmitt & Kuljanin, 2008; Vandenberg & Lance, 2000). In order to perform Step 0, I used Box's M Test (Box, 1949). The null hypothesis for Box's M test is that the covariance matrices are equivalent across groups. As such, a significant Box's M statistic

indicates a lack of measurement equivalence and the need to move forward to test for different types of invariance that comprise measurement equivalence.

When moving forward with measurement equivalence analyses, Step 1 examines configural invariance to assess whether 1) the same number of factors exist for each group and 2) the same items are associated with those factors for each group. This analysis sets loadings associated with factors as freely estimated and all other loadings (e.g., cross-loadings) as fixed at zero. Fit statistics are evaluated to determine whether configural equivalence is achieved. In Step 2, metric invariance is examined to determine whether the relationships between the factors and the items (i.e., factor loadings) are equivalent. Here, this metric model is nested in the configural model from Step 1 and the Chi-square difference test and fit statistics are evaluated. Scalar invariance is assessed in Step 3 by testing whether the intercepts of the indicators are equivalent in both groups. Again, the Chi-square difference test and fit statistics are evaluated. Finally, in Step 4, invariant uniqueness is examined to assess the equivalence of the unique variance in the indicators. The Chi-square difference test and fit statistics are evaluated again, and a determination can be made about the measurement equivalence of the measure. To perform these analyses, I used the semTools package in R 3.6.2. Next, I explain the research design for Study 2 in which I test my dissertation research model.

Study 2: Hypothesis Testing

In the sections that follow, I discuss the research setting, procedures, measurement, and analytical strategies for Study 2. This study directly tests the hypotheses posed in chapter 2. In other words, Study 2 is a direct examination of my proposed dissertation research model.

Research Setting and Procedures for Study 2

Given the focus on both leader and follower predictors and outcomes for my hypotheses, the sample for this study is comprised of matched leader-follower dyads. I used the snowballing technique in order to collect data from matched leader-follower dyads as this sampling technique has demonstrated effectiveness in collecting matched reports (e.g., Gooty et al., 2019; Gosserand & Diefendorff, 2005; Martins et al., 2002). More specifically, 615 undergraduate students across sixteen classes and 233 graduate students across nine classes from two universities in the Mid-Atlantic and Southeastern regions of the United States were instructed to recruit from their social networks and provide contact information for two, matched supervisor-subordinate pairs from different workgroups in exchange for extra credit. The graduate students were allowed to participate in data collection with their respective leader or follower; however, the undergraduate students only served as recruiters. Of the total student recruiter pool, 27 undergraduate students from twelve classes and 59 graduate students from eight classes participated as recruiters. Note that at least one alternative extra credit option was provided for students (with some undergraduate classes offering multiple alternative opportunities), which may have contributed to the smaller participation rate for student recruiters.

Similar to Study 1, student recruiters were instructed to use the following inclusion criteria for potential dyads: 1) full time employment at 35 hours or more per week, 2) the leader and follower must be age 21 and older, and 3) the leader and follower must currently be working in a direct report relationship of at least six months. Note that these inclusion criteria were also verified through a series of questions in the actual surveys provided to participants. As a result of using the snowballing technique, the matched leader-follower dyads were sampled across contexts, which eliminates the potential for effects due to within-organization bias. This

technique is appropriate for hypothesis testing as the hypothesized relationships are relevant to all leader-follower relationships, no matter the industry or occupation. Student recruiters provided names, email addresses, telephones, and organization names for their dyads and I performed a series of random checks to ensure that the contact information provided by students was legitimate, including checks of LinkedIn profiles and contacting participants without email addresses/LinkedIn profiles that corresponded to their provided organization name.

Student recruiters provided contact information for 211 matched leader-follower dyads. Each participant received an email with instructions for the online survey administered through Qualtrics, including the name of the leader (for follower surveys) or the name of the follower (for leader surveys) they should rate. This email contained a link to the survey that is unique to each participant so that participants can only complete one survey and this survey can be matched to the respective relationship partner. Further, I provided an additional check to ensure that leaders' and followers' ratings are appropriately matched by asking participants to provide identifying information about whom they are rating in the actual survey. Of the 211 potential dyads, 176 leader-follower dyads (i.e., 352 participants) provided usable, matched data, with a participation rate of 83%. Data were considered unusable if only one dyad member responded to the survey (25 dyads) or a dyad member responded to the survey but did not rate their corresponding partner (3 dyads). Note that 39 of the dyads included for analyses had a graduate student recruiter that participated as either a supervisor (10 dyads) or a subordinate (29 dyads). As an additional check to be sure there were no significant differences between the graduate student and non-student data, I performed independent sample t-tests to compare the study variable means and there were no significant mean differences between these two groups.

The Study 2 dataset demonstrated less than 1% of missing data. All missing data were item-level missingness (Newman, 2014) and no participant failed to respond to more than two items across all focal variables in the survey, with the majority of respondents only failing to respond to 1 item. Thus, I used $mean_{(across\ items)}$ imputation (Bernaards & Sijtsma, 2000; Newman, 2009; 2014; Roth et al., 1999) for missing data. Further, after performing the same single construct and multiple techniques described for Study 1 (Aguinis et al., 2013), I determined that there were no significant outliers in the Study 2 data. Additionally, I examined the potential for nonresponse bias in the data. Rogelberg et al. (2003) identify the majority of nonresponse as passive (i.e., individuals express a willingness to participate in the study, but unplanned circumstances intervene) and such passive nonrespondents did not significantly differ on their standing on satisfaction-type variables compared to responders. For my dissertation research, Study 2 recruitment and data collection took place just as the majority of the United States issued stay at home orders due to the COVID-19 pandemic. I suspect that this transition may have created such "unplanned circumstances" to cause passive nonresponse.

I further examined the potential for nonresponse bias via multiple techniques (Rogelberg & Stanton, 2007). First, I conducted a wave analysis wherein I coded for whether participants completed the survey before the deadline (n = 130 leaders, n = 138 followers), after receiving a reminder email (n = 38 leaders, n = 29 followers), or after the deadline listed in the reminder email (n = 8 leaders, n = 9 followers). If the later respondents respond significantly different from the earlier respondents, then it is indicative that some bias might exist. I performed independent sample t-tests to compare the study variable means between these three groups and found no significant mean differences across groups. Second, I used the passive nonresponse analysis technique (Rogelberg & Stanton, 2007) by including social desirability in my survey.

Rogelberg et al. (2003) assert that passive nonrespondents can differ from responders by personality dimensions. For my particular study, using students as recruiters and participants (for graduate students) may cause individuals with the tendency for social desirability to be more likely to respond. As such, I included social desirability as a control variable in my analyses (see Chapter 4 for results).

The sample for Study 2 data analysis is comprised of 176 matched leader-follower dyads (352 participants total). Of the leaders, 54% were male, with the majority ranging in age from 35-44 (35.20%), closely followed by 45-54 years of age (29.50%). The majority of leaders were Caucasian (69.30%) and 87.50% reported their education level at a bachelor's degree or higher. Of the followers, 46% were male, with the majority ranging in age from 25-34 (37.50%), followed by 35-44 years of age (29.50%). Most followers were Caucasian (64.80%) and 80.10% reported their education level at a bachelor's degree or higher. The dyads came from a range of industries, with the majority working in the finance and insurance industry (25%) and professional, scientific, and technical services industry (23.30%). The average relationship tenure was 35.85 months (SD = 44.46 months). For a complete description of sample demographics, see Table 3.2. Next, I discuss the measurement used in Study 2.

Study 2 Measurement

All measures from Study 1 were used for Study 2, including any modifications to the contextualized measures from Study 1 data analysis. New measures for Study 2 are the emotional tone index (ETI) and control variables, with complete measures found in Appendix B.

Emotional Tone. I use the Alternate Emotional Tone Index (ETI: Beckes, 2009; Berscheid et al., 1989) to assess both positive and negative emotional tone for the leader and follower. The original ETI was created by Berscheid and colleagues (1989) in their development

of the Relationship Closeness Inventory. The original ETI assesses the frequency in which relationship partners experience 27 different emotions in their relationship. In the original development of the measure, 12 positive emotions and 15 negative emotions were used. Beckes' (2009) alternate ETI (also used in Gooty et al., 2019) adapted the Berscheid et al. (1989) measure to include 14 positive emotions and 14 negative emotions. In a series of exploratory and confirmatory factor analyses, Gooty and colleagues' (2019) found that four emotion items from the alternate ETI were not relevant to the leader-follower relationship—calm, needed, surprise, and distressed. As such, I use this adapted version of the alternate ETI as it best reflects emotions that are relevant to the leader-follower relationship.

The instructions for the measure are, "How often do you experience each of the following emotions in your relationship with your subordinate/supervisor?" The response format uses a five-point scale (1 = *never* to 5 = *very often*). The emotions that comprise the positive ETI are excited, elated, joyful, happy, delightful, passionate, serene, satisfied, wanted/cared for, content, and optimistic. The emotions that comprise the negative ETI are angry, fearful, jealous, irritated, hostile, disgusted, rejected, sad, guilty, worried, disappointed, depressed, and lonely.

Control Variables. In order to determine the incremental predictive validity of the affective and cognitive predictors in my dissertation, I must control for other known predictors of LMX. As the central focus of this dissertation is both leader and follower perceptions of LMX, I specifically turned to Sin and colleagues' (2009) meta-analytic and primary examination of the predictors that drive shared leader-follower perceptions of LMX. Sin and colleagues identify repeated social interactions between leaders and followers as the primary driver for increasing agreement in leader and follower perceptions of LMX. They conceptualize the nature of such repeated social interactions in the following three ways.

First, I control for relationship tenure as empirical evidence suggests that leaders and followers in more established relationships are more likely to agree on perceptions of LMX. Second, I control for the intensity of the interactions between leaders and followers via a five-item measure of reciprocal interdependence (Pearce & Gregersen, 1991) adapted to the leader-follower relationship by Sin et al. (2009). This builds on relationship tenure by actually examining the interdependence of the leader and follower throughout the tenure of their relationship. Third, I control for communication frequency via a six-item measure (Kacmar et al., 2003). Again, this provides a more nuanced depiction of relationship tenure by assessing the frequency of interactions within the lifespan of the relationship.

Unrelated to Sin and colleagues' (2009) focus on repeated social interactions in the leader-follower dyad, I also control for the gender of the leader and follower. Additionally, I control for social desirability using a 10-item short form of the Marlow-Crowne scale (Strahan & Gerbasi, 1972) due to the possibility of socially desirable responding as a function of the student snowballing sampling technique used for this study. Appendix B provides the complete measures for control variables.

Analytical Strategies for Hypotheses

Preliminary analyses of the data include descriptive statistics, bivariate correlations, and reliabilities for the leader and follower data (separately). Similar to Study 1, I performed CFAs to examine concept replication from the relationship sciences to the leader-follower relationship context (Hinkin, 1995; 1998; Hughes et al., 1986; James et al., 1982; Pedhazur & Schmelkin, 1991). For goodness of fit indices, I examined the chi-squared, RMSEA, CFI, and TLI values to evaluate the best fitting measurement model.

Polynomial Regression Analyses

Due to the substantive focus on shared cognition of leaders and followers in this dissertation, the primary analytical strategy for testing hypotheses one through six is polynomial regression with response surface analysis. I follow the procedures provided by Shanock and colleagues (2010) to conduct these analyses. The equation for polynomial regression is:

$$Y = b_0 + b_1X + b_2Z + b_3X^2 + b_4XZ + b_5Z^2 + e \quad (1)$$

In this equation, *Y* is the dependent variable as reported by the leader or follower, *X* is the leader's rating of a predictor, and *Z* is the follower's rating of a predictor. For each predictor variable, I conduct four, separate polynomial regression analyses. For example, for growth beliefs as my predictor, I test the following equations:

$$\textit{Leader LMX-MDM} = b_0 + b_1\textit{Growth-L} + b_2\textit{Growth-F} + b_3\textit{Growth-L}^2 + b_4\textit{Growth-L*Growth-F} + b_5\textit{Growth-F}^2 + e \quad (2)$$

$$\textit{Leader LMSX} = b_0 + b_1\textit{Growth-L} + b_2\textit{Growth-F} + b_3\textit{Growth-L}^2 + b_4\textit{Growth-L*Growth-F} + b_5\textit{Growth-F}^2 + e \quad (3)$$

$$\textit{Follower LMX-MDM} = b_0 + b_1\textit{Growth-L} + b_2\textit{Growth-F} + b_3\textit{Growth-L}^2 + b_4\textit{Growth-L*Growth-F} + b_5\textit{Growth-F}^2 + e \quad (4)$$

$$\textit{Follower LMSX} = b_0 + b_1\textit{Growth-L} + b_2\textit{Growth-F} + b_3\textit{Growth-L}^2 + b_4\textit{Growth-L*Growth-F} + b_5\textit{Growth-F}^2 + e \quad (5)$$

For a complete test of hypotheses one through six, I conduct 12, separate polynomial regression analyses. Prior to conducting these polynomial regression analyses, I examined the extent to which discrepant predictor scores exist between leaders and followers by standardizing and comparing the scores within each dyad. Shanock and colleagues (2010) identify discrepancy as any standardized score for a leader predictor variable that is half a standard deviation above or

below the standardized score for the follower predictor variable. This information demonstrates the level of discrepancies that exist between leaders and followers in my sample.

Instead of directly interpreting the results from the polynomial regression analyses, I use the coefficients to examine a response surface pattern (Edwards, 1994; Edwards & Parry, 1993; Harris et al., 2008; Shanock et al., 2010). This response surface pattern is comprised of the slope and curvature of two lines, creating a three-dimensional representation of the data. One line is called the "line of incongruence," where significant curvature demonstrates how the degree of discrepancy between the leader and follower predictor variable influences leader or follower reported LMX. The slope of the line of incongruence reflects the extent to which the direction of the discrepancy influences leader or follower reported LMX. The second line is of substantive interest for the hypothesized relationships in this dissertation – the "line of perfect agreement." The slope of this line demonstrates how agreement between a leader and follower predictor variable influences leader or follower reported LMX. The curvature of this line demonstrates whether or not the relationship between leader-follower agreement in a predictor and LMX is linear or nonlinear, with significance indicating a nonlinear relationship.

The equations for all four surface test values that can be derived from the curvature and slope of the line of incongruence and the line of perfect agreement are as follows:

$$\text{Slope of the line of perfect agreement: } a_1 = (b_1 + b_2) \quad (6)$$

$$\text{Curvature of the line of perfect agreement: } a_2 = (b_3 + b_4 + b_5) \quad (7)$$

$$\text{Slope of the line of incongruence: } a_3 = (b_1 - b_2) \quad (8)$$

$$\text{Curvature of the line of incongruence: } a_4 = (b_3 - b_4 + b_5) \quad (9)$$

b_1 is the unstandardized beta coefficient for the leader's predictor, b_2 is the unstandardized beta coefficient for the follower's predictor, b_3 is the unstandardized beta coefficient for the leader's

predictor squared, b_4 is the unstandardized beta coefficient for the cross-product of the leader and follower predictors, and b_5 is the unstandardized beta coefficient for the follower's predictor squared. The focal line of interest for testing hypotheses one through six is the line of perfect agreement where the leader predictor equals the follower predictor (e.g., leader growth belief = follower growth belief). Support for hypotheses three through six is demonstrated when a_1 is positive; i.e., the response surface along the line of perfect agreement has a positive slope. Conversely, support for hypotheses one and two is demonstrated when a_1 is negative; i.e., the response surface along the line of perfect agreement has a negative slope. I use the resources provided by Shanock and colleagues (2010) to calculate these surface test values and standard errors and to graph the response surface pattern (based on Edwards & Parry, 1993).

Relative Weights Analyses

In order to test hypotheses seven and eight, I use relative weights analysis (Tonidandel & LeBreton, 2011; 2015). Relative weights analysis (RWA) is a useful supplement to multiple regression analyses when researchers are interested in determining which predictor matters more for a given outcome (i.e., incremental contributions to total predicted variance) as this analysis provides more accurate variance partitioning for predictors that are correlated to one another. RWA overcomes the issue of collinearity by using a variable transformation approach that creates new predictors (Z_{Xk}) that are "maximally related to the original predictors (X_j) but are orthogonal to one another" (Tonidandel & LeBreton, 2015, p. 208). The standardized regression coefficients produced by multiple regression analyses with the new predictors can be "rescaled back to the original variables by combining them with the standardized regression coefficients (λ_{jk}) obtained by regressing the original predictors (X_j) on their orthogonal counterparts (Z_{Xk})"

(Tonidandel & LeBreton, 2015, p. 208). This process allows for an estimate of relative importance for each predictor that is free of collinearity issues.

In this respect, I am interested in understanding the relative importance of destiny beliefs, growth beliefs, communal strength, and positive and negative emotional tone in predicting leader and follower LMSX and LMX-MDM (note that the focus on shared leader-follower predictors is no longer used in these analyses). To conduct RWA, I use R script generated by RWA-Web (Tonidandel & LeBreton, 2015). Following recommendations from Tonidandel et al. (2009), I used bias corrected and accelerated 95% confidence intervals (BCa CIs) for the individual relative weights based on bootstrapping with 10,000 replications, with significance testing corresponding to an alpha level of .05. The raw relative weights are considered statistically significant when the 95% CI does not include zero. Additionally, I examine whether the relative weight of communal strength is significantly different from the relative weights of the other predictors as I hypothesize that communal strength will have the most important effect on LMX outcomes for both leaders and followers (Tonidadel & LeBreton, 2015).

Emotional Tone Ratio Analyses

Finally, for hypothesis 9a and 9b, I calculate the ratio of positive to negative emotional tone for leaders and followers in decimal form. I, then, examine if the leader and follower emotional tone ratio is related to both LMSX and LMX-MDM over and above the control variables identified for Study 2. Similar to the above RWA, these analyses do not include the agreement lens that is used for the polynomial regression analyses; rather, I use same-source predictors and outcomes (e.g., leader emotional tone ratio predicting leader LMSX).

CHAPTER IV

RESULTS

In the following chapter, I present the findings from Study 1 and Study 2. The purpose of Study 1 is to gather evidence for the validity of the contextualized relationship sciences constructs introduced to the management domain – growth beliefs, destiny beliefs, and communal strength. The purpose of Study 2 is to test the hypotheses presented in chapter 2.

Study 1: Psychometric Validation of Adapted Scales

Descriptive statistics are in Table 4.1 for the combined leader and follower sample and Table 4.2 for the split sample of leaders and followers separately. Cronbach's alphas were acceptable, with all alphas ranging from 0.84 to 0.95. All bivariate correlations for predictor-LMX associations were in the expected direction (positive associations for growth beliefs and communal strength and negative association for destiny beliefs); however, the correlations between destiny beliefs and leader LMX outcomes were not significant.

Scale Adaptation

Per best practices for scale adaptation and validation (Heggestad et al., 2019; Hinkin, 1995; 1998), I examined item-level statistics for the adapted relationship sciences measures to gain a better understanding of how the contextualized items relate to one another. Then, I attempted to replicate the concepts for growth and destiny beliefs and communal strength based on existing psychometric testing in the relationship sciences. For these analyses, I used the combined sample of leaders and followers (note that results from the measurement equivalence analyses are discussed in a later section of Chapter 4).

Growth and Destiny Beliefs. I first examined the inter-item correlations for the ITR subscales, wherein items that correlate with other items at less than 0.40 were flagged as items

that may not be drawing from the same content domain (Hinkin, 1995; 1998; Kim & Mueller, 1978). Only items 6 and 9 from the growth beliefs subscale met this criterion, with the inter-item correlations for item 6 ranging from 0.14 – 0.30 and the inter-item correlations for item 9 ranging from 0.11 – 0.36. Next, I examined the corrected item-total correlations and identified items 6 and 9 from the growth subscale as less than 0.40. Then, I probed the factor structure via successive exploratory factor analyses and found that items 6 and 9 from the growth belief subscale demonstrated consistently weaker factor loadings (less than 0.40: Ford et al., 1986; Hinkin, 1995; 1998) on the corresponding latent factor compared to other items.

Given that the ITR measure was created for the romantic relationship content domain, it is not surprising that some of the items may be less relevant for leader-follower relationships. In the growth belief subscale, item 6 states, "Supervisor-subordinate relationships often fail because people do not try hard enough." Item 9 states, "Without conflict from time to time, supervisor-subordinate relationships cannot improve." Theoretically, considering the context of the leader-follower relationship (compared to romantic relationships), item 6 may lack relevancy for growth beliefs in the workplace as there are a variety of work-related factors that may contribute to an unsuccessful supervisor-subordinate relationship more so than simply not trying hard enough in the relationship. For example, differentiated LMX relationships are typically based on a demonstration of follower competence and performance in their job (Dienesch & Liden, 1986; Graen & Cashman, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). For item 9, generally promoting conflict (without nuance around the type or intensity of the conflict) as constructive does not align with typical display rules and social norms in the workplace (Ashforth & Humphrey, 1993; Brotheridge & Grandey, 2002; Diefendorff & Richard, 2003; Rafaeli & Sutton, 1987; 1989; Schaubroeck & Jones, 2000). Given the above empirical and

theoretical justifications, I omitted items 6 and 9 from the growth belief subscale for all analyses in Study 1 and Study 2.

The existing relationship sciences literature demonstrates a two-factor structure for the ITR measure – one factor for destiny beliefs and one factor for growth beliefs (Knee, 1996; 1998; Knee et al., 2003). I replicated the concepts: 1) one-factor model: $\chi 2(152) = 1268.87$, $p < 0.001$; RMSEA = 0.14, Tucker-Lewis index (TLI) = 0.73, confirmatory fit index (CFI) = 0.76 and 2) two-factor model: $\chi 2(151) = 449.40$, $p < 0.001$; RMSEA = 0.07, TLI = 0.93, CFI = 0.94. Given the potential for common method bias due to the use of a cross-sectional research design with self-report data (Podsakoff et al., 2012; Podsakoff et al., 2003) I also modeled a third method factor and found this three-factor model demonstrated the best fit to the data: $\chi 2(133) = 331.81$, $p < 0.001$; RMSEA = 0.06, TLI = 0.95, CFI = 0.96. Here, the factor correlations with the method factor were -0.62 for the growth beliefs factor and 0.28 for the destiny beliefs factor. Based on the above adaptation procedures, I conclude that the adapted ITR measure, with three items dropped from the growth beliefs subscale (note that one item was omitted prior to data collection – see Chapter 3), operates similarly to the original ITR measure developed in the relationship sciences and can be used in the leader-follower context (Heggestad et al., 2019).

Communal Strength. After using the same procedures and criteria as above for examining the item-level statistics of the communal strength scale, I found three, reverse-scored items to be problematic. The reverse-scored items demonstrated inter-item correlations ranging from -0.09 to 0.30 (i.e., failing to meet the 0.40 criterion: Hinkin, 1995; 1998; Kim & Mueller, 1978) and the corrected item-total correlations were below 0.40 in sequential analyses omitting each item one at a time. Upon probing the factor structure via exploratory factor analysis, a two-factor structure emerged, with the reverse-scored items loading onto a separate factor. This is consistent with the

literature examining measurement issues with reverse-scored items wherein unexpected factor structures can emerge because of the inclusion of reverse-scored items (e.g., Netemeyer et al., 2003; Weijters et al., 2013). Indeed, communal strength should not have a two-factor structure, but rather a one-factor structure (Mills et al., 2004).

The literature on measurement issues with reverse-scored items also identifies how participants may miscomprehend measures with items that have opposing meanings, especially when items use negated phrases (e.g., Swain et al., 2008). For example, item 9 on the communal strength measure includes a negated phrase (underlined and italicized for emphasis): "How easily could you accept ***not*** helping your supervisor/subordinate?" Grounded in the literature on measurement issues with reverse-scored items and the above item-level analyses, I omitted the reverse scored items for all analyses in Study 1 and Study 2. A one-factor structure demonstrated the best fit to the Study 1 data: $\chi 2(9) = 42.75$, $p < 0.001$; RMSEA = 0.10, TLI = 0.97, CFI = 0.95. As such, the adapted communal strength measure, with four items omitted from the scale (note that one item was omitted prior to data collection – see Chapter 3), operates similarly to the original measure and can be used in the leader-follower context (Heggestad et al., 2019).

I also conducted CFAs to examine the discriminant validity of communal strength with LMSX and LMX-MDM as all three constructs tap into relational motives (i.e., communal and exchange motives). Note that ITRs were not included in these analyses as there is no theoretical basis for examining the discriminant validity of growth and destiny beliefs from LMX. I compared the fit of three models ranging from a single-factor model to a three-factor model: (1) one-factor model incorporating communal strength, LMSX, and LMX-MDM as a singular relationship motives construct, (2) two-factor model combining LMSX and LMX-MDM as an exchange motive factor (Factor 1) and separating communal strength as a non-exchange factor

(Factor 2), and 3) three-factor model separating LMSX (Factor 1) and LMX-MDM (Factor 2) as two separate exchange-related constructs (as they are conceptualized and tested in the LMX literature: Bernerth et al., 2007) and communal strength as a non-exchange factor (Factor 3). Table 4.3 shows the results of these analyses.

Considering fit statistics for all three models, the three-factor model demonstrated the best fit to the data: $\chi 2(272) = 933.15$, $p < 0.001$; RMSEA = 0.08, TLI = 0.89, CFI = 0.90. Following the approach outlined by Fornell and Larcker (1981), I also calculated the AVE for discriminant validity evidence. These statistics are depicted in Table 4.4. The AVE estimates met the Fornell and Larcker criterion for discriminant validity as the square root of communal strength's AVE was larger than the factor correlations between communal strength and any other LMX construct. For communal strength, the square root of the AVE was .75, which was larger than the factor correlations between communal strength and LMSX (.59) and LMX-MDM (.70). In sum, there is evidence for the discriminant validity of communal strength as a relational motive that is empirically distinct from exchange behavior and dimensions in leader-follower relationships.

Measurement Equivalence Analyses

I performed measurement equivalence analyses (Schmitt & Kuljanin, 2008; Vandenberg & Lance, 2000) on the ITR and communal strength measures to address whether the scale items represent the constructs in the same way for leaders and followers. For both measures, I found evidence for partial equivalence according to the procedures of Vandenberg and Lance (2000). Partial equivalence analyses use the same procedures as typical measurement equivalence analyses; however, constraints are implemented for minor sources of measurement inequivalence (e.g., Bagozzi & Edwards, 1998; Steenkamp & Baumgartner, 1998; Vandenburg & Lance,

2000). Here, Vandenburg and Lance assert that partial equivalence analyses can be appropriate when configural invariance is achieved (i.e., same factor structure in both groups), constraints are only relaxed for a minority of indicators, and a theoretical justification is provided. For both the ITR and communal strength measures, configural invariance was achieved and constraints were relaxed for only one indicator in subsequent tests (item 8 on the destiny belief subscale and item 3 for communal strength). For a detailed explanation of these analyses and theoretical justifications for the use of partial equivalence analyses, see Appendix C. In summary, when implementing constraints for partial measurement inequivalence with item 8 of the destiny beliefs subscale and item 3 of the communal strength scale, cross-group comparisons can be made for leaders and followers (Bagozzi & Edwards, 1998; Steenkamp & Baumgartner, 1998; Vandenburg & Lance, 2000). To account for this partial equivalence, I test hypotheses in Study 2 both with and without the problematic items to examine whether this issue alters my findings.

Overall, for Study 1, I modified the ITR measure by omitting three items from the growth beliefs subscale, so that it was more appropriate for the leader-follower relationship compared to its original use in romantic relationships (note that one item was omitted prior to data collection – see Chapter 3). No items were omitted for the destiny beliefs subscale in the adapted ITR measure. Additionally, I modified the communal strength measure by omitting all reverse-scored items (note that one additional item was omitted prior to data collection – see Chapter 3) as these items proved confusing for participants that otherwise demonstrated sufficient effort in the survey (e.g., negated phrases, two-factor structure: Netemeyer et al., 2003; Swain et al., 2008; Weijters et al., 2013). The revised scales demonstrated adequate psychometric properties and these revised scales are used for analyses in Study 2.

Study 2: Hypothesis Testing

Descriptive statistics for the separate leader and follower variables in Study 2 are depicted in Table 4.5 and 4.6 respectively. Cronbach's alphas were acceptable, with all alphas ranging from 0.70 to 0.92, with the exception of leader social desirability at 0.67. All correlations were in the expected direction and demonstrated similar patterns to Study 1. Similar to the CFA for the ITR measure in Study 1, a three-factor model (growth factor, destiny factor, and method factor due to common method bias from the cross-sectional, self-report research design: Podsakoff et al., 2012; Podsakoff et al., 2003) was the best fitting model for the Study 2 data: $\chi 2(133) = 274.50$, $p < 0.001$; RMSEA = 0.06, TLI = 0.92, CFI = 0.94. Here, the factor correlations with the method factor were -0.56 for the growth beliefs factor and 0.66 for the destiny beliefs factor. Also similar to Study 1, a one-factor structure was the best fitting model for communal strength: $\chi 2(9) = 58.74$, $p < 0.001$; RMSEA = 0.10, TLI = 0.91, CFI = 0.95. For the ETI, a three-factor structure was the best fitting to the data (positive ETI, negative ETI, method factor): $\chi 2(228) = 490.62$, $p < 0.001$; RMSEA = 0.06, TLI = 0.92, CFI = 0.93, which replicates the CFA findings in Gooty et al. (2019).

Polynomial Regression Results

Following recommendations from Shanock and colleagues (2010), I determined the extent of discrepancy between leader and follower destiny beliefs, growth beliefs, and communal strength scores prior to conducting polynomial regression analyses. To complete this initial step, I standardized the leader and follower scores and compared the leader and follower standardized scores using the criterion that leader or follower scores that are half a standard deviation above or below the other are considered discrepant (Shanock et al., 2010). A summary of these comparisons is depicted in Table 4.7. Approximately 60% of the leader and follower scores were

discrepant for destiny beliefs, growth beliefs, and communal strength; thus, providing empirical support for the examination of agreement or lack of agreement in these constructs as predictive of LMX outcomes.

I conducted twelve separate polynomial regression analyses to test hypotheses one through six. I performed these analyses with all six control variables (leader and follower gender, tenure, reciprocal dependence, communication frequency, and social desirability) and without the control variables and found that the overall pattern of results did not change, with the exception of some differences in significance for the hierarchical regression parameter estimates (these are not used for interpretation of polynomial regression results) and non-hypothesized response surface values. Similarly, I conducted the same polynomial regression analyses for destiny beliefs and communal strength without the problematic items identified in the measurement equivalence analyses in Study 1 (item 8 for destiny beliefs and item 3 for communal strength) and also found that the overall pattern of results did not change. Thus, the inclusion of controls and the problematic items from measurement equivalence testing in Study 1 did not alter support or lack of support for hypothesis testing. As such, I present the following results using the full, adapted measures of destiny beliefs and communal strength and without control variables. The results with control variables and the results without the problematic items from measurement equivalence testing in Study 1 can be found in an online supplement: https://osf.io/h6gyx/?view_only=49c115441f91408f9d4aaba5bea3b17f.

Consistent with previous research using a sequential process (e.g., Bashshur et al., 2011; Gooty et al., 2019), in Step 1, I entered the scale-centered leader and follower destiny beliefs to test H1a, H1b, H2a, and H2b, scale-centered leader and follower growth beliefs to test H3a, H3b, H4a, and H4b, and scale-centered leader and follower communal strength to test H5a, H5b, H6a,

and H6b. In Step 2, I entered the higher order polynomials depicted in Equation 1 from Chapter 3: leader squared term, follower squared term, and the leader-follower interaction term for each cognitive predictor. The results of these analyses are depicted in Tables 4.8 through 4.13.

For destiny beliefs, the full model and response surface values were not significant for leader or follower LMSX. Thus, hypotheses H1a and H1b were not supported. For LMX-MDM, the full model and response surface values were not significant for leaders, so H2a was not supported. For followers, the full model did explain a significant amount of variance for LMX-MDM, with a total of 7% of the variance explained ($p < .05$). For support of H2b, the slope of the response surface along the line of perfect agreement (a_1; i.e., leader destiny belief = follower destiny belief) should be negative. For H2b, a_1 was not statistically significant and, thus, this hypothesis was not supported. However, a_3, or the slope of the line of incongruence (indicating how the direction of a leader-follower discrepancy is related to follower LMX-MDM), was positive and significant (.19, $p < .01$). Thus, follower LMX-MDM is higher when leader destiny belief is higher than follower destiny belief rather than vice versa (see Figure 4.1).

For growth beliefs, the full model and response surface values were not significant for leader LMSX, so H3a was not supported. For followers, the full model explained a total of 9% of the variance in LMSX ($p < .01$). For support of H3b, the slope of the response surface along the line of perfect agreement (a_1; i.e., leader growth belief = follower growth belief) should be positive; however, a_1 was not significant, so H3b was not supported. For leader LMX-MDM, the full model significantly explained a total of 7% of the variance ($p < .05$); however, a_1 was not significant, so H4a was not supported. For follower LMX-MDM, the full model and response surface values were not significant, so H4b was not supported. Given the above findings, I did

not find evidence for leader-follower agreement in destiny beliefs or growth beliefs as predictive of leader and follower LMX outcomes.

H5a, H5b, H6a, and H6b pertain to the effects of relationship-specific communal strength on leader and follower LMX outcomes. For support of these hypotheses, the slope of the response surface along the line of perfect agreement (a_1; i.e., leader communal strength = follower communal strength) should be positive. For LMSX, the full model for the polynomial regression analyses significantly explained a total of 19% of the variance in both leader and follower LMSX ($p < .001$). For LMX-MDM, the full model significantly explained a total of 31% of the variance for leaders ($p < .001$) and 37% of the variance for followers ($p < .001$). However, a_1 was only positive and significant for leader LMSX (0.21, $p < .05$), leader LMX-MDM (0.20, $p < .01$), and follower LMX-MDM (0.27, $p < .01$), and not follower LMSX. Thus, H5a, H6a, and H6b were supported and H5b was not supported. Additionally, for leader LMSX, leader LMX-MDM, and follower LMX-MDM, a_2 (curvature of the line of perfect agreement) was not significant, indicating a linear relationship along the line of perfect agreement (see Figures 4.2, 4.3, and 4.4). These findings suggest that leader LMSX, leader LMX-MDM, and follower LMX-MDM increase when leader communal strength and follower communal strength are matched and increasing from low-low to medium-medium to high-high. In other words, these three LMX outcomes are higher when both parties are in agreement at a high level of communal strength versus when both parties are in agreement at a low level of communal strength.

For follower LMSX and LMX-MDM, a_3, or the slope of the line of incongruence (indicating how the direction of a leader-follower discrepancy is related to follower LMSX and LMX-MDM), was negative and significant (LMSX: -0.20, $p < .01$; LMX-MDM: -.22, $p < .001$). This suggests that follower LMX is higher when follower communal strength is higher than

leader communal strength rather than vice versa (see Figures 4.4 and 4.5). Conversely, a_3, was *positive* and significant for leader LMX-MDM (.05, $p < .05$), suggesting that leader LMX-MDM is higher when leader communal strength is higher than follower communal strength. Further, for leader LMX-MDM, a_4 (or the degree of discrepancy between leader and follower communal strength and leader LMX-MDM) was significant and positive (.06, $p < .01$), indicating a convex surface (see Figure 4.3) where leader LMX-MDM increases more sharply as the degree of discrepancy increases (although this surface value was weaker in strength).Taken together, these findings indicate that the rater (i.e., leader or follower) perceives higher LMX when their own communal strength is higher than their relationship partner's; however, this effect is weaker for leaders.

Relative Weights Analyses Results

To address H7 and H8, I conducted relative weight analyses (Johnson, 2000; Tonidandel & LeBreton, 2014) using R 3.6.2 to examine the relative importance of the above cognitive constructs and positive and negative emotional tone for predicting leader and follower LMX. Following recommendations from Tonidandel et al. (2009), I used bias corrected and accelerated 95% confidence intervals (BCa CIs) for the individual relative weights based on bootstrapping with 10,000 replications, with significance testing corresponding to an alpha level of .05. Results are depicted for leader and follower LMSX in Table 4.14 and leader and follower LMX-MDM in Table 4.15.

The weighted linear combination of destiny beliefs, growth beliefs, communal strength, negative ETI, and positive ETI explained 34% of the variance in leader LMSX ($p < .001$), 36% of the variance in follower LMSX ($p < .001$), 49% of the variance in leader LMX-MDM ($p < .001$), and 54% of the variance in follower LMX-MDM ($p < .001$). Note that these analyses were

conducted with same source data (i.e., leader predictors predicting leader LMX outcomes and follower predictors predicting follower LMX outcomes). Upon examining the relative weights of each of the five predictors for both leader and follower LMX outcomes, only communal strength, negative ETI, and positive ETI were statistically significant as their 95% CIs did not contain zero. Thus, I found support for H7a and 7b as relationship-specific cognition (communal strength) and emotion (positive and negative ETI) were more important for predicting leader and follower LMSX and LMX-MDM compared to growth and destiny beliefs.

H8a and H8b stated that relationship-specific cognition (or communal strength) would be relatively more important for predicting LMX compared to emotional tone. Of the statistically significant relative weights, the most important predictor for leader and follower LMSX and LMX-MDM was positive ETI, with a rescaled relative weight (RS-RW) of 55.50% for leader LMSX, 52.07% for follower LMSX, 52.50% for leader LMX-MDM, and 47.45% for follower LMX-MDM. Negative ETI and communal strength were equivalent in secondary importance for leader and follower LMSX and LMX-MDM as the relative weights were not significantly different from each other in terms of the magnitude of size. Notably, the relative weight for positive ETI was significantly larger than the relative weight for communal strength for all LMX outcomes except follower LMX-MDM. For the case of follower LMX-MDM, the size of the relative weights for positive and negative ETI and communal strength cannot be significantly differentiated. Regardless, H8a and H8b were not supported as positive ETI emerged as either the most important predictor (for leader and follower LMSX and leader LMX-MDM) or could not be significantly differentiated from communal strength in terms of the magnitude of size (for follower LMX-MDM).

Given the bias that can occur using same source data, I also calculated the relative weights for the five predictors using cross source data in post hoc analyses (i.e., leader predictors and follower LMX and follower predictors and leader LMX). Results are depicted for leader and follower LMSX in Table 4.16 and leader and follower LMX-MDM in Table 4.17. Using cross source data, the weighted linear combination of destiny beliefs, growth beliefs, communal strength, negative ETI, and positive ETI explained a smaller percentage of variance in the LMX outcomes compared to the same source data: 14% of the variance in leader LMSX ($p < .001$), 13% of the variance in follower LMSX ($p < .001$), 15% of the variance in leader LMX-MDM ($p < .001$), and 18% of the variance in follower LMX-MDM ($p < .001$). Statistically significant relative weights (95% CIs that do not contain zero) differed by LMX outcome: only follower positive ETI was significant for leader LMSX, leader positive and negative ETI were significant for follower LMSX, follower communal strength and positive ETI were significant for leader LMX-MDM, and leader communal strength and both positive and negative ETI were significant for follower LMX-MDM.

For the comparison of each predictor's relative weight against communal strength, I could only interpret the analyses where the relative weight for communal strength was statistically significant. As such, I did not interpret these analyses for LMSX as the relative weight for communal strength was only significant for leader and follower LMX-MDM.
For both leader and follower LMX-MDM, the magnitude of the size of the relative weight for positive ETI was not significantly different from the relative weight for communal strength. In sum, in terms of cross source relative weights, relationship-specific predictors matter more than generalized relational predictors (similar to same source data), but only positive ETI demonstrated a significant relative weight across all LMX outcomes. Positive ETI was the most

important predictor for both leader and follower LMSX; however, while positive ETI demonstrated the strongest relative weight for leader and follower LMX-MDM, the magnitude of the weight could not significantly differentiated from communal strength.

Emotional Tone Ratio Results

For hypothesis 9a and 9b, I examined whether the leader's and follower's individual emotional tone ratio (i.e., the ratio of positive emotional tone to negative emotional tone) was related to their perceptions of LMX (note that the predictor and the outcome are same source in these analyses). In Step 1, I entered the control variables – gender, social desirability, tenure, communication frequency, and reciprocal dependence. Then, in Step 2, I entered the emotional tone ratio for the leader or follower (as matched to the source of the LMX ratings). The results of these analyses are depicted in Tables 4.18 for leaders and 4.19 for followers.

For leaders, the control variables accounted for 13% of the variance in LMSX ($p < .01$) and 14% of the variance in LMX-MDM ($p < .001$), with the addition of leader emotional tone accounting for 31% of the variance in LMSX ($p < .001$, $\Delta R^2 = 0.18$) and 45% of the variance in LMX-MDM ($p < .001$, $\Delta R^2 = 0.31$). For every one unit increase in the leader emotional tone ratio (i.e., increase in the frequency of positive emotion to negative emotion), there was a 0.32 predicted increase in LMSX ($p < .001$) and 0.29 predicted increase in LMX-MDM ($p < .001$) when the control variables were held constant. For followers, the control variables accounted for 17% of the variance in LMX-MDM ($p < .001$) and the R^2 for LMSX was nonsignificant. The addition of the follower emotional tone ratio accounted for 30% of the variance in LMSX ($p < .001$, $\Delta R^2 = 0.24$) and 41% of the variance in LMX-MDM ($p < .001$, $\Delta R^2 = 0.24$). For every one unit increase in the follower emotional tone ratio (i.e., increase in the frequency of positive emotion to negative emotion), there was a 0.39 predicted increase in LMSX ($p < .001$) and 0.29

predicted increase in LMX-MDM ($p < .001$) when the control variables were held constant. Thus, hypotheses 9a and 9b are supported as the emotional tone ratio is related to LMSX and LMX-MDM for both leaders and followers.

Overarchingly, findings from Study 2 demonstrated that leader-follower agreement in growth and destiny beliefs did not matter for LMX. Further, growth and destiny beliefs were largely unimportant for LMX across the board as they demonstrated weak relative weights at the individual-level compared to communal strength and emotional tone. Leader-follower agreement in communal strength, however, does matter for LMX relationships, but positive emotional tone largely emerged as the most important predictor of LMX when simultaneously examining communal strength and emotional tone in same source and cross source data. Finally, the ratio of positive to negative emotional tone in the LMX relationship drives perceptions of quality in the relationship. In the next chapter, I discuss these findings and their broader implications for understanding the cognitive and affective nature of LMX relationships.

CHAPTER V

DISCUSSION

Leadership research has extensively focused on LMX and its predictive ability of important outcomes in organizations, including follower performance, organizational citizenship behavior, satisfaction, commitment, and reduced turnover (see meta-analytic reviews: Dulebohn et al., 2012; Dulebohn et al., 2017; Gerstner & Day, 1997; Ilies et al., 2007; Martin et al., 2016). An understudied area of the LMX domain is an examination of drivers of LMX that are derived from the primary unit of analysis in the LMX framework – the *relationship* between a leader and a follower. My dissertation sought to address this gap in the literature via a focus on ITRs (i.e., growth and destiny beliefs), the communal motive in specific relationships, and the emotional tone of the relationship as predictors of both leader and follower LMX.

Leader-Follower Agreement in Relational Cognitions

I expected that LMX quality would be higher for leaders and followers when both parties are in agreement at a high level of growth beliefs (versus agreement at a low level of growth beliefs) and low levels of destiny beliefs (versus agreement at a high level of destiny beliefs) based on literature from the relationship sciences. Inconsistent with these expectations, agreement in leader-follower destiny beliefs and growth beliefs was unrelated to LMX outcomes. That is, even though an equivalent proportion of leader-follower dyads reported agreement in destiny beliefs and growth beliefs (approximately 40% of dyads for each), sharing such implicit theories did not influence perceptions of LMX quality. Here, the lack of significant findings for the polynomial regression analyses may be a power issue (see the below section on study limitations for further discussion on this point). However, same-source bivariate correlations across studies demonstrated that growth beliefs were positively related to leader and follower

LMX outcomes and destiny beliefs were negatively related to follower LMX outcomes. Theoretically, this suggests that the ITRs that reside in the leader's or follower's mind may influence their own perceptions of the LMX relationship, but leader-follower *agreement* in these ITRs may not be influential over individual perceptions of LMX quality.

Further, across Study 1 and Study 2, the same-source bivariate correlations for follower growth and destiny beliefs and LMX and leader growth beliefs and LMX were consistent with similar relationship outcomes in the extant relationship sciences literature (e.g., growth and destiny beliefs and relationship satisfaction: Knee et al., 2001). Note that across both studies, destiny beliefs were not significantly related to LMX for leaders, suggesting that this ITR is not relevant for the leader role. Here, leaders typically have multiple followers and, thus, the expectation for a "destined" relationship with each follower at the outset of the relationship may be less realistic for the leadership context. However, when considering followership, there is typically only one direct leader and the power imbalance may also lead to "romanticizing" this leader (e.g., Meindl, 1995; Meindl et al., 1985). Thus, the followership context may be more relevant for destiny beliefs in ITRs.

I also expected that LMX quality would be higher for leaders and followers when both parties are in agreement at a high level of communal strength versus when both parties are in agreement at a low level of communal strength. In line with this expectation, I found that leader-follower agreement in communal strength at high levels related to higher ratings of leader LMSX and both leader and follower LMX-MDM. This indicates that when *both* leaders and followers prioritize the other relationship partner's needs and welfare, beyond the self-focused expectations of receiving a timely, comparable benefit, they are more likely to engage in social reciprocity and readily disperse liking, loyalty, respect, and contribution into the relationship. The LMX

literature has been dominated by an exchange perspective since its inception; however, these findings integrate the tenets of communal relationship theory (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982) with the LMX literature and point to the importance of a shared communal motive as a driving force of LMX quality for leaders and followers.

Notably, follower LMSX was not significantly related to leader-follower agreement in communal strength. However, for followers, the direction of the leader-follower discrepancy in communal strength (i.e., the slope of the line of incongruence) was significantly and negatively related to LMSX and LMX-MDM. This means that follower LMSX and LMX-MDM are higher when follower communal strength is stronger than their leaders (note that follower LMX-MDM can also increase as a function of leader-follower agreement in communal strength). This finding is particularly interesting considering follower LMX is often the primary focus of research in the LMX domain (Dulebohn et al., 2012; Gooty et al., 2012). Thus, while followers perceive higher quality LMX-MDM when they are matched with their leader at high levels of communal strength, followers can also perceive a high quality LMX relationship (in terms of both LMSX and LMX-MDM) when they are communally motivated towards their leader without the leader reciprocating in kind. While such an effect also occurred for leader LMX-MDM, where leaders perceived higher quality LMX-MDM when they had stronger communal strength than their follower, this effect was much smaller compared to followers and only held for LMX-MDM (and not LMSX). As such, leaders are more likely to perceive a high quality LMX relationship when both the leader and follower are in agreement at high levels of communal strength. Given the power differential, perhaps followers are inclined to incur costs for their leaders and attend to their leader's needs without expectations for an immediate, comparable return as a form of impression management to demonstrate their work ethic and personal character.

The Interplay of Relational Cognition and Emotion

I expected that relationship-specific predictors – communal strength and emotional tone of the relationship – would be more important for driving LMX quality than generalized implicit theories of relationships. Further, I expected relationship-specific cognition, or communal strength, to be more important than the emotional tone of the relationship given the necessity of cognition for the selection and experience of discrete emotion (e.g., Lazarus, 1982; Lazarus & Folkman, 1984). Consistent with these expectations, relationship-specific predictors were more important than ITRs for all LMX outcomes from both the leader and follower perspectives (in same source and cross source data). However, positive emotional tone emerged as the most consistently important predictor across LMX outcomes. In line with previous literature in the relationship sciences and management literature, emotions serve as social information and the positive emotional tone of the relationship represents the history of the relationship in terms of met expectations and relational goal attainment (Berscheid et al., 1989; Berscheid & Ammazzalorso, 2001; Berscheid & Reis, 1998; Brief & Weiss, 2002; Cropanzano et al., 2017; Gooty et al., 2019; Lazarus & Folkman, 1984; Van Kleef, 2009; 2016). Thus, I suspect that positive emotional tone emerged as a more important predictor of LMX compared to communal strength due to its representation of a range of positive events that have occurred in the relationship over time compared to the more narrow focus of communal strength as the relationship-specific cognition in this dissertation.

Given the use of matched leader-follower dyads in this dissertation, I examined same and cross source relative weights for the relational predictors and LMX outcomes to account for the potential inflation of estimates using same source data (Podsakoff et al., 2012; Podsakoff et al., 2003). Indeed, the relational predictors explained a smaller percentage of variance in the LMX

outcomes for the cross source data compared to the same source data. While the inflation of same source estimates may be influenced in part by common method bias, theoretically, it may also be indicative that one's own emotion experience and relational motives are a stronger driver of their own relational perceptions compared to their relationship partner. Interestingly, positive emotional tone was the only relational predictor with a significant relative weight for all four LMX outcomes (i.e., leader and follower LMSX and LMX-MDM) in the cross source analyses; whereas, all relative weights for relationship-specific emotion and cognition were statistically significant in the same source analyses. Here, positive emotional tone may have a more consistent association with the corresponding relationship partner's LMX as positive emotion experiences in relationships are linked to approach-oriented behaviors in the relationship (Barsade, 2002; Berscheid et al., 1989; Frijda et al., 1989; Laurenceau et al., 2005; Lazarus, 1991; Lazarus & Folkman, 1984; Ortony et al., 1988), which in turn promote greater potential for social reciprocity (Barsade et al., 2000; Hareli & Rafaeli, 2008; Gooty et al., 2019).

These findings address previous critiques of the study of relationships by examining cognition and emotion simultaneously to gain better insight into their interplay in driving LMX quality (Bradbury & Fincham, 1987). Further yet, these findings illuminate the importance of obtaining both leader and follower ratings for understanding dyadic LMX relationships (Gooty et al., 2012; Schriesheim et al., 1999; Schriesheim et al., 2001; Yammarino et al., 2005). Using both cross source and same source analyses, I uncovered that positive emotional tone is the most important when taking both parties of the LMX relationship into account. As emotion research has become more popular in the organizational sciences, it has only recently emerged in the study of LMX, with the majority of this work being theoretical in nature (for an exception, see Gooty et al., 2019). My findings indicate that an overarching positive emotional tone of the

relationship is critical for LMX quality for both parties in the relationship (even when simultaneously considering the communal motive). While much of the LMX literature on predictors of LMX focuses on work- and competence-based drivers of the relationship (e.g., for a meta-analytic review, see Dulebohn et al., 2012), these findings add to the small but growing evidence base around the emotional landscape of the LMX relationship, in addition to more formal, role-related factors.

Emotional Tone Ratio in the Leader-Follower Relationship

Given the above finding of the importance of positive emotional tone for LMX quality, it is also necessary to take a more realistic understanding of working relationships in the organizational context. The study of emotion in the workplace identifies the elicitation of emotions across the range (i.e., both positive and negative) from the work environment, including the leader-follower relationship itself (Cropanzano et al., 2017; Weiss & Cropanzano, 1996), indicating that the experience of negative emotions are inevitable even though positive emotions are more desirable for LMX outcomes. In the relationship sciences, Gottman and colleagues' (Gottman, 1994; Gottman et al., 1998; Gottman & Levenson, 1992; 1999; 2002) work also asserts that conflict (and therefore negative emotional interactions) is inevitable for married couples, with the ratio of positive to negative emotional interactions being predictive of stability in the relationship and, ultimately, divorce. Using this same logic, I sought to understand if the ratio of positive to negative emotional tone in leader-follower relationship predicts the leader's and follower's perceptions of LMX quality. As expected, I found that the emotional tone ratio was related to LMX for both leaders and followers such that relationships with a higher rate of positive emotion experience to negative emotion experience also had greater social reciprocity in terms of LMSX and LMX-MDM.

Given the assumption that the leader-follower relationship will, realistically, elicit emotions across the range (Cropanzano et al., 2017), this finding speaks to the leader-follower relationship as following a bank account model (Gottman, 1998; Gottman & Gottman, 2008; Gottman & Silver, 1999) where the relationship should keep a positive balance comprised of more positive emotion "deposits" than negative emotion "withdrawals." Just like a bank account, a zero balance and, more so, a negative balance are indicative of problems in the relationship that may influence the quality of social reciprocity among leaders and followers. Additionally, through the use of both leader and follower ratings, I find that this bank account model holds for both members of the dyad. Moving forward, the leader-follower relationship literature may benefit from conceptualizing the emotional landscape of the relationship as a bank account (Gottman, 1998; Gottman & Gottman, 2008; Gottman & Silver, 1999) where relationship quality is partly a function of leaders' and followers' emotional deposits and withdrawals across the lifespan of the relationship.

Practical Implications

The implications of this research should be interpreted with caution from a practical standpoint as this is the first study to examine ITRs and communal strength and LMX. However, I extend Gooty and colleagues' (2019) work speaking to the importance of positive emotional tone for social reciprocity in leader-follower relationships, indicating more stability in this association. Thus, evidence suggests that it may be effective for leadership development programs to include training around the incorporation of positive emotion in the leader-follower relationship. Further, the emotional tone ratio findings speak to a bank account model (Gottman, 1998; Gottman & Gottman, 2008; Gottman & Silver, 1999), with positive emotion deposits and negative emotion withdrawals characterizing leader-follower relationships. Using the analogy of

a bank account may have great practical utility in leadership development trainings as keeping a positive balance in your bank account is a concept that is familiar to most individuals. Indeed, The Gottman Institute (Dollard, 2017; Lisitsa, 2013) uses the concept of the bank account model in their therapeutic work with romantic couples. In this respect, leaders can learn how to capitalize on everyday positive events and articulate shared meaning around the events with followers, thereby creating a more positive emotional tone, and thus a positive balance, in the relationship. Further, leaders can be trained to stay cognizant of the number of negative emotion withdrawals that are occurring in their relationships with followers and seek to increase positive emotion occurrences for those relationships with zero to negative balances.

Study Limitations and Future Research

This dissertation research was accompanied by several study limitations and areas for future research. First, I conceptualized relational cognition and emotional tone as predictors based on a body of work developed in the relationship sciences, social psychology, and management where cognition and emotion drive subsequent behaviors and relational outcomes (Barsade, 2002; Barsade et al., 2000; Bartel & Saavedra, 2000; Berscheid, 1983; Boiger & Mesquita, 2012; Han, 2014; Hareli & Rafaeli, 2008; Kim et al., 2010; Tse et al., 2013; Weiss & Cropanzano, 1996). However, my research design for hypothesis testing in Study 2 used a one-time data collection and, thus, I could not examine the potential for temporal dynamics of cognition and emotion and relationship quality (e.g., Hareli & Rafaeli, 2008; Walter & Bruch, 2008). For example, there may a self-reinforcing cycle of communal strength and perceptions of LMX such that perceiving a high-quality relationship motivates the individual to increase their communal strength. Future research should use research designs (i.e., longitudinal studies, experience sampling methodology) to follow LMX relationships from the beginning of their

trajectory to examine when and how target-specific exchange versus communal motives are introduced into the relationship.

Second, this work is entirely perceptual and based on self-report data collection. While this method is conducive to understanding the leader's and follower's interpretation of their own cognitive, emotional, and relational perceptions, future research may consider other forms of research design and measurement. For example, an individual may think they exhibit high communal strength in their target relationship, but their focal relationship partner may not agree with such a self-assessment. This mismatch in perceptions of communal strength may be of substantive interest as a driver of relationship quality and lack of leader-follower agreement therein. Additionally, the inclusion of social desirability as a control variable was largely unrelated to all study variables except for a negative association with leader and follower negative emotional tone. This finding speaks to a larger issue in emotion research where individuals may under report their experience of negative emotion as they feel it is less desirable in terms of social norms to admit to the experience of negative emotions at work. Future research should incorporate other techniques outside of self-report to examine emotion experience and expression, including text-based analysis (e.g., email communication between leader and follower) and observational analysis. For example, in Gottman and colleagues work on balanced affect in married couples (Gottman, 1994; Gottman & Levenson, 1992), they conducted behavioral observations and developed a coding scheme to identify indicators of positive and negative emotional interactions among the couples.

Third, as mentioned previously, the lack of significant findings for the polynomial regression analyses with ITRs may be a power issue as my sample size of 176 dyads was lower than the originally proposed 316 dyads needed to test the multiple predictor variables (i.e.,

leader's and follower's separate predictors and squared terms and the interaction term). As such, this study may be underpowered, which can potentially lead to false negative findings and inflated effect sizes (Button et al., 2013). Future research should seek to replicate the findings demonstrated in this dissertation using a larger sample size of leader-follower dyads, with an emphasis on the examination of ITRs as both Study 1 and Study 2 (as well as the relationship science literature) demonstrates smaller effect sizes for ITRs and relationship outcomes compared to communal strength (thereby making the ITR-LMX associations more susceptible to power issues).

Fourth, this research introduced new constructs into the LMX domain. As such, future research is needed to replicate the findings from this work. Further, each construct domain represents a new direction for future research in the LMX domain. Indeed, the study of ITRs in the relationship sciences literature is not limited to growth and destiny beliefs. For example, individuals with nonzero-sum beliefs expect that goal attainment for one person does not detract from goal attainment for another person, while individuals with zero-sum beliefs expect that goal attainment for one individual comes at the expense of goal attainment for another focal individual (Crocker et al., 2017). Crocker and colleagues demonstrated that nonzero-sum beliefs positively predicted relationship quality for romantic partners via increased optimism during relational challenges. Further, qualitative inquiry may be used to develop new ITRs and/or adapt current ITRs in the relationship sciences to the workplace context and the leader-follower relationship specifically.

Additionally, communal relationship theory (Clark & Mills, 1979; 1993; Clark et al., 1987; Mills & Clark, 1982) is a well-developed theoretical framework in the psychological literatures with different established constructs. For example, while this study focused on

relationship-specific communal strength, other work has examined communal orientation as an individual difference where individuals enter all relationships with the predisposition to act more or less communally (for a meta-analytic review in the relationship sciences, see Le et al., 2018). As this dissertation provided initial support for the inclusion of communal motives as a relevant area of study for workplace relationships, future research should expand upon the nomological network of communal relationship theory.

Conclusion

My dissertation research sought to examine predictors of leader and follower LMX that are grounded in the actual relationship between the leader and follower. In so doing, I introduced three, new constructs to the LMX literature – destiny beliefs, growth beliefs, and communal strength – and examined their associations with LMX via multiple techniques. Further, I incorporated the emotional tone of the relationship as a predictor of LMX to gain a more holistic perspective of the cognitive and affective landscape of leader-follower LMX quality. Ultimately, my work speaks to the importance of the communal motive and emotional tone for LMX relationships with theoretical and practical implications for the LMX domain therein.

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Table 3.1: Study 1 Sample Characteristics

Demographics	Leaders	Followers
Gender		
n	200	200
Female	36.00%	43.50%
Male	64.00%	56.50%
Race		
n	200	199
African/African American	6.00%	7.00%
Hispanic/Latino	4.50%	2.50%
Asian	21.50%	7.50%
Caucasian	62.00%	76.50%
Native American	1.50%	1.50%
Multiple	4.50%	4.50%
Age		
n	200	200
21-24	7.50%	5.50%
25-34	40.50%	43.00%
35-44	32.50%	34.00%
45-54	13.00%	9.50%
55-64	5.50%	8.00%
65 and older	1.00%	0.00%
Education		
n	200	200
High school	15.00%	31.00%
Bachelor's degree	60.50%	54.50%
Graduate	11.00%	8.00%
Post-graduate	13.50%	6.50%
Industry		
n	200	200
Finance and insurance	14.00%	6.00%
Professional, scientific, and technical services	31.50%	33.00%
Hospitality and food services	6.00%	7.50%
Education	11.00%	9.00%
Health care and social services	10.00%	9.50%
Retail	11.50%	14.00%
Manufacturing	10.50%	12.50%
Public administration	3.00%	3.50%
Other	2.50%	5.00%

Table 3.2: Study 2 Sample Characteristics

Demographics	Leaders	Followers
Gender		
n	172	176
Female	43.80%	54.00%
Male	54.00%	46.00%
Race		
n	175	176
African/African American	8.00%	7.40%
Hispanic/Latino	6.80%	4.50%
Asian	6.30%	8.00%
Caucasian	69.30%	64.80%
Native American	0.60%	0.60%
Middle Eastern	0.60%	0.00%
Indian (India)	6.30%	7.40%
Multiple	1.80%	4.60%
Other	0.00%	2.30%
Age		
n	175	176
21-24	0.60%	9.10%
25-34	22.20%	37.50%
35-44	35.20%	29.50%
45-54	29.50%	12.50%
55-64	10.80%	9.70%
65 and older	1.10%	1.70%
Education		
n	175	176
High school	11.90%	19.90%
Bachelor's degree	39.20%	43.20%
Graduate	35.80%	28.40%
Post-graduate	12.50%	8.50%
Industry		
n	176 leader-follower dyads	
Finance and insurance	25.00%	
Professional, scientific, and technical services	23.30%	
Hospitality and food services	3.40%	
Education	11.40%	
Health care and social services	8.50%	
Retail	4.00%	
Manufacturing	8.50%	
Public administration	2.30%	
Other	13.60%	

Table 4.1: Descriptives, Reliabilities, and Correlations for Study 1 Full Sample

		M (SD)	1	2	3	4	5
1	Destiny Beliefs	3.68 (1.36)	*(.95)*				
2	Growth Beliefs	5.32 (0.87)	-.34***	*(.85)*			
3	Communal Strength	6.68 (1.77)	-.01	.41***	*(.88)*		
4	LMSX	3.91 (0.84)	-.11*	.30***	.52***	*(.92)*	
5	LMX-MDM	4.05 (0.78)	-.19***	.36***	.62***	.83***	*(.93)*

$N = 400$. *** $p < .001$, ** $p < .01$, * $p < .05$. Cronbach's alphas are italicized on the diagonal.

LMSX = social exchange LMX, LMX-MDM = multidimensional LMX.

Table 4.2: Study 1 Descriptives, Reliabilities, and Correlations for Leaders and Followers

		Leader M (SD)	Follower M (SD)	1	2	3	4	5
1	Destiny Beliefs	3.77 (1.42)	3.60 (1.30)	*.95 (.94)*	-.42***	-.14*	-.15*	-.26**
2	Growth Beliefs	5.38 (.84)	5.26 (.89)	-.27**	*.84 (.87)*	.39***	.32***	.34***
3	Communal Strength	6.97 (1.54)	6.40 (1.93)	.11	.45***	*.86 (.89)*	.61***	.68***
4	LMSX	4.03 (.64)	3.80 (.99)	-.08	.26***	.33***	*.87 (.95)*	.88***
5	LMX-MDM	4.14 (.54)	3.96 (.95)	-.13	.42***	.50***	.69***	*.86 (.95)*

Note. Leaders = 200, Followers = 200. *** p < .001, ** p < .01, * p < .05. Leader correlations are below the diagonal and follower correlations are above the diagonal. Cronbach's alphas are italicized on the diagonal, with leader alphas outside of the parentheses and follower alphas inside the parentheses. LMSX = social exchange LMX, LMX-MDM = multidimensional LMX.

Table 4.3: Study 1 Relationship-Specific Constructs – CFA Model Fit Indices

Model	CFI	TLI	χ^2	*df*	Difference	RMSEA
One factor	.78	.76	1767.05*	275		.12
Two factor	.87	.86	1153.32*	274	613.74*	.09
Three factor	.90	.89	933.15*	272	220.17*	.08

Note. $N = 400$. * $p < .001$. The one-factor model includes communal strength, LMSX, and LMX-MDM. The two-factor model combines LMSX and LMX-MDM (Factor 1) and separates communal strength (Factor 2). The three-factor model separates LMSX (Factor 1), communal strength (Factor 2), and LMX-MDM (Factor 3). CFI = comparative fit index; TLI = Tucker-Lewis index; Difference = difference in chi-square from the next model; RMSEA = root-mean-square error of approximation.

Table 4.4: Study 1 Relationship-Specific Constructs – Composite Reliability, Average Variance Extracted, and Factor Correlation between Constructs

			Factor Correlations		
Constructs	CR	AVE	LMSX	LMX-MDM	Communal Strength
LMSX	.93	.61	*(.78)*		
LMX-MDM	.93	.54	.89	*(.73)*	
Communal Strength	.88	.56	.59	.70	*(.75)*

N = 400. The italicized numbers in parentheses on the diagonal row are square roots of the average variance extracted. CR = composite reliability, AVE = average variance extracted.

Table 4.5: Study 2 Descriptive Statistics, Reliabilities, and Correlations for Leaders

		M (SD)	1	2	3	4	5	6	7	8	9	10	11
1	Destiny	3.04 (1.03)	*(.91)*										
2	Growth	5.50 (.61)	-.09	*(.70)*									
3	Communal strength	8.12 (1.23)	-.11	.34***	*(.83)*								
4	Negative ETI	1.44 (.35)	.10	-.07	-.22**	*(.83)*							
5	Positive ETI	3.93 (.61)	.06	.23**	.50***	-.44***	*(.88)*						
6	LMX-MDM	4.41 (.43)	.00	.20**	.49***	-.44***	.66***	*(.82)*					
7	LMSX	4.13 (.62)	.09	.17*	.37***	-.35***	.55***	.55***	*(.85)*				
8	Tenure	35.85 (44.46)	.05	-.07	.01	.11	-.03	.10	.03	--			
9	Reciprocal dependence	3.68 (1.05)	-.09	.08	.23**	-.02	.26***	.24**	.25**	.06	*(.89)*		
10	Comm frequency	3.20 (.83)	.06	.05	.17*	.05	.18*	.18*	.22**	-.07	.21**	*(.77)*	
11	Social desirability	6.58 (2.14)	.12	.18*	.05	-.30***	.14	.09	.08	.01	-.09	-.01	*(.67)*
12	Gender (L)	--	.07	.10	-.09	.11	-.21**	-.19*	-.15	.03	-.16*	-.04	.05
13	Gender (F)	--	.23**	-.05	-.17*	.07	-.10	-.16*	-.11	-.11	-.04	-.07	.09
14	Destiny (L) * Destiny (F)	.73 (1.61)	-.51***	-.02	.11	.00	.08	.04	-.03	-.06	.06	-.02	-.12
15	Destiny $(L)^2$	1.96 (1.87)	-.57***	.19*	.16*	.00	.05	.03	-.08	.01	.09	.05	.00
16	Destiny $(F)^2$	1.35 (1.41)	-.08	.01	.11	-.02	.07	.06	.00	-.07	.09	.09	.10
17	Growth (L) * Growth (F)	1.88 (1.44)	.08	.62***	.21**	-.08	.28***	.21**	.19*	.00	.07	.04	.14

		M (SD)	1	2	3	4	5	6	7	8	9	10	11
18	Growth (L)^2	2.62 (1.71)	-.04	.93***	.38***	-.08	.26***	.24**	.19*	-.04	.10	.09	.21**
19	Growth (F)^2	1.99 (1.57)	.16*	.15	-.04	-.06	.14	.06	.14	-.02	.02	-.05	.08
20	CS (L) * CS (F)	3.66 (4.49)	-.06	.21**	.60***	-.27 ***	.44***	.38***	.34***	.00	.19*	.11	-.01
21	CS (L)^2	6.01 (4.77)	-.04	.30***	.72***	-.29 ***	.52***	.48***	.36***	.02	.10	.14	.14
22	CS (F)^2	4.72 (4.38)	-.01	.11	.25**	-.16*	.22**	.27***	.26**	-.05	.20**	.08	-.01

		12	13	14	15	16	17	18	19	20	21	22
12	Gender (L)	--										
13	Gender (F)	.33***	--									
14	Destiny (L) * Destiny (F)	-.02	-.05	--								
15	Destiny (L)^2	-.02	-.12	.35***	--							
16	Destiny (F)^2	-.01	.07	.42***	.17*	--						
17	Growth (L) * Growth (F)	.07	-.04	.00	.08	.03	--					
18	Growth (L)^2	.10	-.04	-.03	.25**	.07	.60***	--				
19	Growth (F)^2	-.03	-.03	-.02	-.09	.08	.70***	.15	--			
20	CS (L) * CS (F)	-.15*	-.07	.17*	.17*	.02	.31***	.26**	.17*	--		
21	CS (L)^2	-.14	-.14	.06	.15*	.16*	.21**	.34***	.08	.52***	--	
22	CS (F)^2	-.11	-.04	.13	.08	.17*	.17*	.13	.15*	.64***	.25**	--

Note. N = 176 leaders, N = 176 followers. Leader Gender N = 172 (female = 1 and male =2). Tenure = in months. *** p < .001, ** p < .01, * p < .05. Cronbach's alphas are italicized on the diagonal. CS = communal strength; L = leader; F = follower. Interactions and squared terms were computed using scale-centered values.

Table 4.6: Study 2 Descriptive Statistics, Reliabilities, and Correlations for Followers

		M (SD)	1	2	3	4	5	6	7	8	9	10	11
1	Destiny	3.40 (1.00)	*(.89)*										
2	Growth	5.20 (.74)	-.07	*(.70)*									
3	Communal strength	7.45 (1.62)	-.24**	.27***	*(.85)*								
4	Negative ETI	1.63 (.52)	.16*	-.09	-.28***	*(.89)*							
5	Positive ETI	3.80 (.77)	-.09	.27***	.59***	-.45***	*(.92)*						
6	LMX-MDM	4.52 (.54)	-.18*	.20**	.59***	-.44***	.68***	*(.89)*					
7	LMSX	4.22 (.70)	-.17*	.23**	.42***	-.38***	.57***	.60***	*(.88)*				
8	Tenure	35.85 (44.46)	-.02	.02	.02	.12	-.09	.01	-.04	--			
9	Reciprocal dependence	3.33 (1.20)	-.02	.07	.10	.00	-.06	.06	.05	.01	*(.91)*		
10	Comm frequency	3.23 (.82)	.10	.08	.24**	.11	.22**	.25**	.20**	-.01	.02	*(.77)*	
11	Social desirability	6.81 (2.24)	.08	.09	.16*	-.20*	.17*	.14	.05	.02	-.10	-.10	*(.70)*
12	Gender (L)	--	.17*	-.04	-.14	.11	-.16*	-.21**	-.06	.03	-.17*	.06	.06
13	Gender (F)	--	.02	-.06	-.01	-.02	-.02	-.01	.01	-.11	-.15	.04	-.02
14	Destiny (L) * Destiny (F)	.73 (1.61)	-.61***	.03	.14	-.13	.14	.12	.15*	-.06	-.09	-.03	-.07
15	Destiny $(L)^2$	1.96 (1.87)	-.19*	-.01	.09	-.08	.03	.06	.08	.01	-.13	-.01	-.03
16	Destiny $(F)^2$	1.35 (1.41)	-.36***	.02	.03	-.08	.15*	.11	.12	-.07	-.08	.01	.03
17	Growth (L) * Growth (F)	1.88 (1.44)	-.03	.82***	.28***	-.08	.27***	.16*	.19*	.00	.03	.03	.09

		M (SD)	1	2	3	4	5	6	7	8	9	10	11
18	Growth (L)^2	2.62 (1.71)	.02	.17*	.14	-.03	.06	.04	.01	-.04	.00	-.04	.03
19	Growth (F)^2	1.99 (1.57)	-.10	.74***	.24**	-.12	.24**	.20*	.29***	-.02	-.01	.03	.15
20	CS (L) * CS (F)	3.66 (4.49)	-.24**	.22**	.84***	-.21**	.54***	.49***	.37***	.00	.10	.19*	.15
21	CS (L)^2	6.01 (4.77)	-.04	.10	.31***	-.14	.37***	.29***	.23**	.02	.04	.11	.09
22	CS (F)^2	4.72 (4.38)	-.08	.14	.63***	-.21**	.40***	.34***	.31***	-.05	.04	.24**	.12

		12	13	14	15	16	17	18	19	20	21	22
12	Gender (L)	--										
13	Gender (F)	.33***	--									
14	Destiny (L) * Destiny (F)	-.02	-.05	--								
15	Destiny (L)^2	-.02	-.12	.35***	--							
16	Destiny (F)^2	-.01	.07	.42***	.17*	--						
17	Growth (L) * Growth (F)	.07	-.04	.00	.08	.03	--					
18	Growth (L)^2	.10	-.04	-.03	.25**	.07	.60***	--				
19	Growth (F)^2	-.03	-.03	-.02	-.09	.08	.70***	.15	--			
20	CS (L) * CS (F)	-.15*	-.07	.17*	.17*	.02	.31***	.26**	.17*	--		
21	CS (L)^2	-.14	-.14	.06	.15*	.16*	.21**	.34***	.08	.52***	--	
22	CS (F)^2	-.11	-.04	.13	.08	.17*	.17*	.13	.15*	.64***	.25**	--

Note. N = 176 leaders, N = 176 followers. Leader Gender N = 172 (female = 1 and male =2). Tenure = in months. *** p < .001, ** p < .01, * p < .05. Cronbach's alphas are italicized on the diagonal. CS = communal strength; L = leader; F = follower. Interactions and squared terms were computed using scale-centered values.

Table 4.7: Study 2 Frequencies of Leader Predictor Levels Over, Under, and In-Agreement with Follower Predictors

	Destiny beliefs			Growth beliefs			Communal strength		
	%	Leader destiny (Mean)	Follower destiny (Mean)	%	Leader growth (Mean)	Follower growth (Mean)	%	Leader CS (Mean)	Follower CS (Mean)
Leader greater than follower	27.80%	3.95	2.78	30.10%	5.92	4.62	33.00%	8.70	6.22
In agreement	40.30%	2.84	3.12	36.90%	5.54	5.27	40.30%	8.26	7.73
Leader less than follower	31.80%	2.50	4.29	33.00%	5.07	5.65	26.70%	7.20	8.55

Note. N = 176 dyads.

Table 4.8: Polynomial Regression Results for Destiny Beliefs and Leader and Follower LMSX

	Leader-reported LMSX			Follower-reported LMSX		
	b	SE	R^2	*b*	SE	R^2
Step 1			.01			.03
Constant	4.18***	.07		4.15***	.08	
Destiny belief (leader)	.05	.05		.01	.05	
Destiny belief (follower)	-.01	.05		-.12*	.05	
Step 2			.01			.04
Constant	4.19***	.09		4.13***	.10	
Destiny belief (leader)	.04	.06		.07	.07	
Destiny belief (follower)	-.01	.06		-.06	.07	
Destiny (leader) x Destiny (follower)	.00	.05		.05	.05	
Destiny (leader) squared	-.02	.03		.03	.03	
Destiny (follower) squared	.00	.04		.02	.04	
Surface Tests						
a_1	.03	.10		.01	.11	
a_2	-.01	.05		.10	.06	
a_3	.05	.08		.13	.09	
a_4	-.02	.08		.01	.09	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for destiny beliefs (leader) and b_2 is beta coefficient for destiny beliefs (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for destiny beliefs (leader) squared, b_4 is beta coefficient for the cross-product of destiny beliefs (leader) and destiny beliefs (follower), and b_5 is beta coefficient for destiny beliefs (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$.

b = unstandardized regression coefficient, SE = standard error.

Table 4.9: Polynomial Regression Results for Destiny Beliefs and Leader and Follower LMX-MDM

	Leader-reported LMX-MDM			Follower-reported LMX-MDM		
	b	SE	R^2	*b*	SE	R^2
Step 1			.01			.05*
Constant	4.39***	.05		4.52***	.06	
Destiny belief (leader)	.01	.03		.07	.04	
Destiny belief (follower)	-.04	.03		-.11*	.04	
Step 2			.01			.07*
Constant	4.37***	.06		4.50***	.07	
Destiny belief (leader)	.01	.05		.14*	.05	
Destiny belief (follower)	-.03	.04		-.05	.05	
Destiny (leader) x Destiny (follower)	-.01	.03		.05	.04	
Destiny (leader) squared	.01	.02		.04	.03	
Destiny (follower) squared	.01	.03		.00	.03	
Surface Tests						
a_1	-.03	.06		.09	.09	
a_2	.01	.05		.09	.06	
a_3	.04	.06		.19**	.06	
a_4	.02	.05		.00	.05	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for destiny beliefs (leader) and b_2 is beta coefficient for destiny beliefs (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for destiny beliefs (leader) squared, b_4 is beta coefficient for the cross-product of destiny beliefs (leader) and destiny beliefs (follower), and b_5 is beta coefficient for destiny beliefs (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$. *b* = unstandardized regression coefficient, SE = standard error.

Table 4.10: Polynomial Regression Results for Growth Beliefs and Leader and Follower LMSX

	Leader-reported LMSX			Follower-reported LMSX		
	b	SE	R^2	*b*	SE	R^2
Step 1			.05*			.05**
Constant	3.77***	.13		4.01***	.15	
Growth belief (leader)	.15*	.08		-.04	.09	
Growth belief (follower)	.11	.06		.22**	.07	
Step 2			.06			.09**
Constant	3.75***	.24		3.98***	.26	
Growth belief (leader)	.02	.23		-.02	.26	
Growth belief (follower)	.18	.16		.05	.18	
Growth (leader) x Growth (follower)	-.08	.11		-.02	.13	
Growth (leader) squared	.09	.07		.00	.08	
Growth (follower) squared	.03	.05		.12	.05*	
Surface Tests						
a_1	.20	.32		.03	.36	
a_2	.04	.12		.11	.14	
a_3	-.16	.23		-.07	.26	
a_4	.20	.16		.14	.20	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for growth beliefs (leader) and b_2 is beta coefficient for growth beliefs (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for growth beliefs (leader) squared, b_4 is beta coefficient for the cross-product of growth beliefs (leader) and growth beliefs (follower), and b_5 is beta coefficient for growth beliefs (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$. *b* = unstandardized regression coefficient, SE = standard error.

Table 4.11: Polynomial Regression Results for Growth Beliefs and Leader and Follower LMX-MDM

	Leader-reported LMX-MDM			Follower-reported LMX-MDM		
	b	SE	R^2	*b*	SE	R^2
Step 1			.05**			.04*
Constant	4.13***	.09		4.38***	.12	
Growth belief (leader)	.13*	.05		-.03	.07	
Growth belief (follower)	.07	.04		.15**	.06	
Step 2			.07*			.06
Constant	4.25***	.16		4.48***	.21	
Growth belief (leader)	-.09	.16		-.24	.20	
Growth belief (follower)	.10	.11		.11	.14	
Growth (leader) x Growth (follower)	.01	.08		-.01	.10	
Growth (leader) squared	.08	.05		.09	.07	
Growth (follower) squared	-.03	.03		.04	.04	
Surface Tests						
a_1	.01	.22		-.13	.28	
a_2	.06	.08		.11	.10	
a_3	-.20	.16		-.35	.20	
a_4	.05	.12		.13	.15	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for growth beliefs (leader) and b_2 is beta coefficient for growth beliefs (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for growth beliefs (leader) squared, b_4 is beta coefficient for the cross-product of growth beliefs (leader) and growth beliefs (follower), and b_5 is beta coefficient for growth beliefs (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$. *b* = unstandardized regression coefficient, SE = standard error.

Table 4.12: Polynomial Regression Results for Communal Strength and Leader and Follower LMSX

	Leader-reported LMSX			Follower-reported LMSX		
	b	SE	R^2	*b*	SE	R^2
Step 1			.17***			.17***
Constant	3.69***	.09		3.92***	.098	
Communal Strength (leader)	.16***	.04		.02	.041	
Communal Strength (follower)	.08**	.03		.17***	.031	
Step 2			.19***			.19***
Constant	3.62***	.11		3.90***	.12	
Communal Strength (leader)	.12*	.06		-.05	.07	
Communal Strength (follower)	.09	.06		.16*	.06	
Communal Strength (leader) x Communal Strength (follower)	-.02	.02		.00	.03	
Communal Strength (leader) squared	.02	.01		.03	.02	
Communal Strength (follower) squared	.02	.01		.01	.02	
Surface Tests						
a_1	.21*	.09		.11	.11	
a_2	.02	.03		.03	.03	
a_3	.04	.07		-.20**	.06	
a_4	.06	.03		.04	.04	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for communal strength (leader) and b_2 is beta coefficient for communal strength (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for communal strength (leader) squared, b_4 is beta coefficient for the cross-product of communal strength (leader) and communal strength (follower), and b_5 is beta coefficient for communal strength (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$. *b* = unstandardized regression coefficient, SE = standard error.

Table 4.13: Polynomial Regression Results for Communal Strength and Leader and Follower LMX-MDM

	Leader-reported LMX-MDM			Follower-reported LMX-MDM		
	b	SE	R^2	*b*	SE	R^2
Step 1			.26***			.36***
Constant	4.02***	.06		4.18***	.07	
Communal Strength (leader)	.15***	.02		.03	.03	
Communal Strength (follower)	.05*	.02		.19***	.02	
Step 2			.31***			.37***
Constant	3.93***	.07		4.13***	.08	
Communal Strength (leader)	.13**	.04		.02	.05	
Communal Strength (follower)	.07*	.04		.24***	.04	
Communal Strength (leader) x Communal Strength (follower)	-.03	.02		-.03	.02	
Communal Strength (leader) squared	.02**	.01		.02	.01	
Communal Strength (follower) squared	.01	.01		-.01	.01	
Surface Tests						
a_1	.20**	.07		.27**	.08	
a_2	.01	.02		-.01	.02	
a_3	.05*	.03		-.22***	.04	
a_4	.06**	.02		.04	.03	

Note. N = 176, *** p < .001, ** p < .01, * p < .05.

$a_1 = (b_1 + b_2)$, where b_1 is beta coefficient for communal strength (leader) and b_2 is beta coefficient for communal strength (follower). $a_2 = (b_3 + b_4 + b_5)$, where b_3 is beta coefficient for communal strength (leader) squared, b_4 is beta coefficient for the cross-product of communal strength (leader) and communal strength (follower), and b_5 is beta coefficient for communal strength (follower) squared. $a_3 = (b_1 - b_2)$. $a_4 = (b_3 - b_4 + b_5)$. *b* = unstandardized regression coefficient, SE = standard error.

Table 4.14: Study 2 Same Source LMSX Relative Weight Analysis Summary

Predictor	*b*	β	RW	CI-L	CI-U	RS-RW (%)
Criterion = Leader LMSX: $R^2 = 0.34$; $F(5) = 17.48$, $p < .001$						
Intercept	2.02***					
Destiny beliefs[a]	.06	.09	.01	.00	.04	2.92
Growth beliefs[a]	.03	.03	.01	.00	.04	3.39
Communal strength	.06	.13	.06*	.03	.12	18.98
Negative ETI	-.26*	-.15	.07*	.02	.14	19.21
Positive ETI[a]	.41***	.41	.19*	.11	.28	55.50
Criterion = Follower LMSX: $R^2 = 0.36$; $F(5) = 19.38$, $p < .001$						
Intercept	2.64***					
Destiny beliefs[a]	-.05	-.08	.01	.00	.05	3.43
Growth beliefs[a]	.06	.07	.02	.00	.07	5.98
Communal strength	.04	.09	.07*	.02	.13	19.25
Negative ETI	-.20*	-.15	.07*	.02	.14	19.26
Positive ETI[a]	.39***	.43	.19*	.10	.30	52.07

Note. N = 176. ***<.001, ** <.01, *<.05. *b* = unstandardized regression weight, β = standardized regression weight, RW = raw relative weight (within rounding error raw weights will sum to R^2), CI-L = lower bound of confidence interval used to test the statistical significance of raw weight, CI-U = upper bound of confidence interval used to test the statistical significance of raw weight, RS-RW = relative weight rescaled as a percentage of predicted variance in the criterion variable attributed to each predictor (within rounding error rescaled weights sum to 100 %). Note that the source of the predictor matches the source of the criterion.

[a] The raw relative weight for this variable differs significantly from the raw relative weight obtained for Communal Strength.

Table 4.15: Study 2 Same Source LMX-MDM Relative Weight Analysis Summary

Predictor	*b*	β	RW	CI-L	CI-U	RS-RW (%)
Criterion = Leader LMX-MDM: $R^2 = 0.49$; $F(5) = 33.08$, $p < .001$						
Intercept	2.80***					
Destiny beliefs[a]	.01	.01	.00	.00	.00	0.29
Growth beliefs[a]	.01	.02	.01	.00	.05	2.93
Communal strength	.07**	.21	.12*	.05	.19	23.70
Negative ETI	-.24**	-.19	.10*	.04	.17	20.58
Positive ETI[a]	.33***	.46	.26*	.18	.35	52.50
Criterion = Follower LMX-MDM: $R^2 = 0.54$; $F(5) = 40.53$, $p < .001$						
Intercept	3.00***					
Destiny beliefs[a]	-.03	-.05	.01	.00	.05	2.23
Growth beliefs[a]	-.01	-.01	.01	.00	.05	2.45
Communal strength	.09***	.28	.17*	.10	.24	31.97
Negative ETI	-.16*	-.15	.09*	.03	.17	15.91
Positive ETI	.32***	.45	.26*	.18	.36	47.45

Note. N = 176. ***<.001, ** <.01, *<.05. *b* = unstandardized regression weight, β = standardized regression weight, RW = raw relative weight (within rounding error raw weights will sum to R^2), CI-L = lower bound of confidence interval used to test the statistical significance of raw weight, CI-U = upper bound of confidence interval used to test the statistical significance of raw weight, RS-RW = relative weight rescaled as a percentage of predicted variance in the criterion variable attributed to each predictor (within rounding error rescaled weights sum to 100 %). Note that the source of the predictor matches the source of the criterion.

[a] The raw relative weight for this variable differs significantly from the raw relative weight obtained for Communal Strength.

Table 4.16: Study 2 Cross Source LMSX Relative Weight Analysis Summary

Predictor	*b*	β	RW	CI-L	CI-U	RS-RW (%)
Criterion = Leader LMSX: $R^2 = 0.14$; $F(5) = 5.53$, $p < .001$						
Intercept	2.47***					
Destiny beliefs[a]	.04	.06	.00	.00	.01	1.33
Growth beliefs	.04	.05	.01	.00	.05	8.25
Communal strength	.06	.15	.05	.01	.10	33.19
Negative ETI[a]	.05	.04	.01	.00	.01	3.88
Positive ETI	.22**	.27	.07*	.03	.15	53.36
Criterion = Follower LMSX: $R^2 = 0.13$; $F(5) = 5.21$, $p < .001$						
Intercept	3.85***					
Destiny beliefs	-.02	-.02	.00	.00	.00	0.35
Growth beliefs	-.08	-.07	.00	.00	.01	1.88
Communal strength	.00	.00	.01	.00	.04	7.81
Negative ETI	-.28	-.14	.04*	.01	.12	31.89
Positive ETI[a]	.33**	.29	.08*	.02	.16	58.06

Note. N = 176. ***<.001, ** <.01, *<.05. *b* = unstandardized regression weight, β = standardized regression weight, RW = raw relative weight (within rounding error raw weights will sum to R^2), CI-L = lower bound of confidence interval used to test the statistical significance of raw weight, CI-U = upper bound of confidence interval used to test the statistical significance of raw weight, RS-RW = relative weight rescaled as a percentage of predicted variance in the criterion variable attributed to each predictor (within rounding error rescaled weights sum to 100 %). Note that the source of the predictor does not match the source of the criterion (i.e., follower predictors and leader LMSX and leader predictors and follower LMSX).

[a] The raw relative weight for this variable differs significantly from the raw relative weight obtained for Communal Strength.

Table 4.17: Study 2 Cross Source LMX-MDM Relative Weight Analysis Summary

Predictor	*b*	β	RW	CI-L	CI-U	RS-RW (%)
Criterion = Leader LMX-MDM: $R^2 = 0.15$; $F(5) = 6.20$, $p < .001$						
Intercept	3.60***					
Destiny beliefs[a]	-.01	-.02	.00	.00	.01	1.38
Growth beliefs	.02	.03	.01	.00	.08	5.48
Communal strength	.03	.11	.04*	.01	.10	26.91
Negative ETI	-.05	-.06	.02	.00	.08	13.35
Positive ETI	.15**	.27	.08*	.03	.16	52.88
Criterion = Follower LMX-MDM: $R^2 = 0.18$; $F(5) = 7.37$, $p < .001$						
Intercept	3.89***					
Destiny beliefs	.05	.10	.01	.00	.05	5.98
Growth beliefs	-.09	-.10	.00	.00	.03	2.50
Communal strength	.05	.11	.03*	.01	.08	17.19
Negative ETI	-.24*	-.16	.05*	.01	.13	26.92
Positive ETI	.23**	.26	.08*	.03	.16	47.41

Note. N = 176. ***<.001, ** <.01, *<.05. *b* = unstandardized regression weight, β = standardized regression weight, RW = raw relative weight (within rounding error raw weights will sum to R^2), CI-L = lower bound of confidence interval used to test the statistical significance of raw weight, CI-U = upper bound of confidence interval used to test the statistical significance of raw weight, RS-RW = relative weight rescaled as a percentage of predicted variance in the criterion variable attributed to each predictor (within rounding error rescaled weights sum to 100 %). Note that the source of the predictor does not match the source of the criterion (i.e., follower predictors and leader LMX-MDM and leader predictors and follower LMX-MDM).

[a] The raw relative weight for this variable differs significantly from the raw relative weight obtained for Communal Strength.

Table 4.18: Hierarchical Regression Results for Leader Emotional Tone Ratio and Leader LMX

	Leader-reported LMSX			Leader-reported LMX-MDM		
	b	SE	R^2	*b*	SE	R^2
Step 1			.13**			.14***
Constant	3.28***	.33		3.97***	.22	
Gender (leader)	-.12	.10		-.11	.07	
Gender (follower)	-.06	.10		-.08	.07	
Tenure	.00	.00		.00	.00	
Social desirability (leader)	.03	.02		.02	.01	
Communication frequency (leader)	.14*	.06		.08*	.04	
Reciprocal dependence (leader)	.12**	.05		.08*	.03	
Step 2			.31***			.45***
Constant	2.61***	.31		3.37***	.19	
Gender (leader)	-.03	.09		-.03	.05	
Gender (follower)	-.03	.09		-.05	.05	
Tenure	.00	.00		.00*	.00	
Social desirability (leader)	-.01	.02		-.02	.01	
Communication frequency (leader)	.14**	.05		.08*	.03	
Reciprocal dependence (leader)	.07	.04		.04	.03	
Emotional tone ratio (leader)	.32***	.05		.29***	.03	

Note. N = 176, Leader gender N = 172 (female = 1 and male =2). Tenure = in months. *** p < .001, ** p < .01, * p < .05.

b = unstandardized regression coefficient, SE = standard error.

Table 4.19: Hierarchical Regression Results for Follower Emotional Tone Ratio and Follower LMX

	Follower-reported LMSX			Follower-reported LMX-MDM		
	b	SE	R^2	*b*	SE	R^2
Step 1			.06			.17***
Constant	3.46***	.39		3.81***	.27	
Gender (leader)	-.12	.11		-.28**	.08	
Gender (follower)	.07	.11		.11	.08	
Tenure	.00	.00		.00	.00	
Social desirability (follower)	.03	.02		.05**	.02	
Communication frequency (follower)	.18**	.06		.19***	.05	
Reciprocal dependence (follower)	.03	.05		.01	.03	
Step 2			.30***			.41***
Constant	2.58***	.36		3.15***	.25	
Gender (leader)	.06	.10		-.15*	.07	
Gender (follower)	.03	.10		.08	.07	
Tenure	.00	.00		.00	.00	
Social desirability (follower)	-.01	.02		.02	.02	
Communication frequency (follower)	.13*	.06		.15***	.04	
Reciprocal dependence (follower)	.04	.04		.03	.03	
Emotional tone ratio (follower)	.39***	.05		.29***	.04	

Note. N = 176, Leader gender N = 172 (female = 1 and male =2). Tenure = in months. *** p < .001, ** p < .01, * p < .05.

b = unstandardized regression coefficient, SE = standard error.

Figure 4.1 Leader-Follower Destiny Belief Discrepancy and Follower LMX-MDM

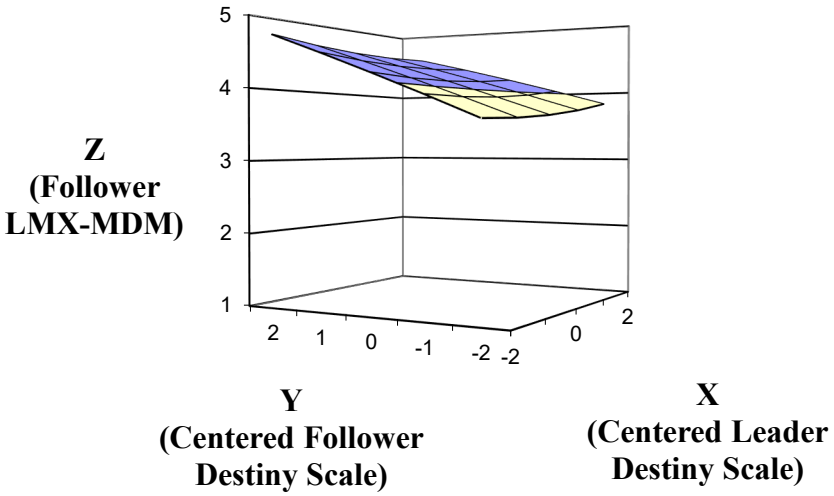


Figure 4.2 Leader-Follower Communal Strength Agreement and Leader LMSX

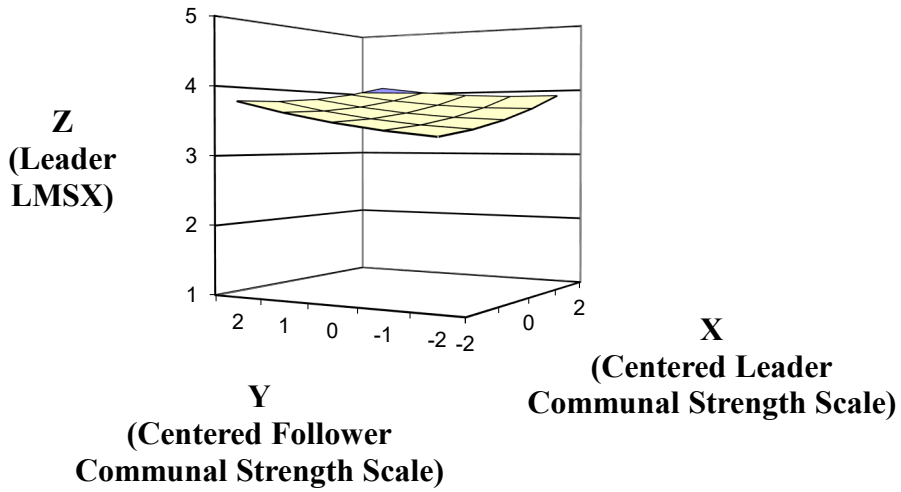


Figure 4.3 Leader-Follower Communal Strength Agreement and Leader LMX-MDM

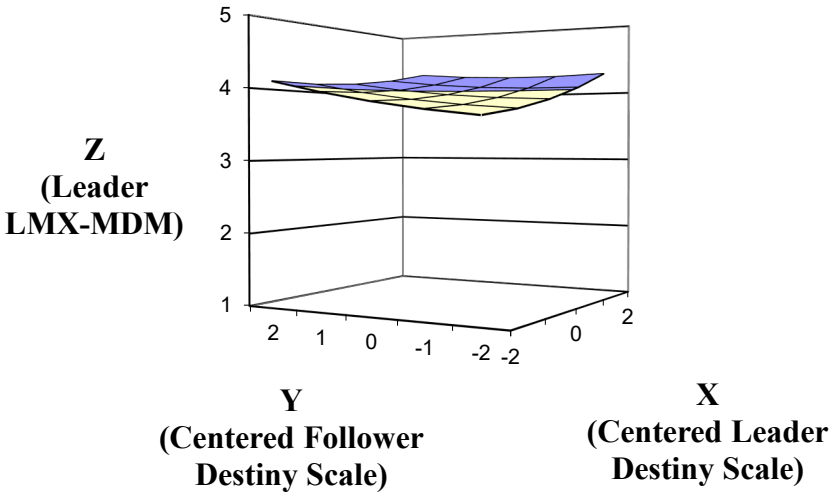


Figure 4.4 Leader-Follower Communal Strength Agreement and Follower LMX-MDM

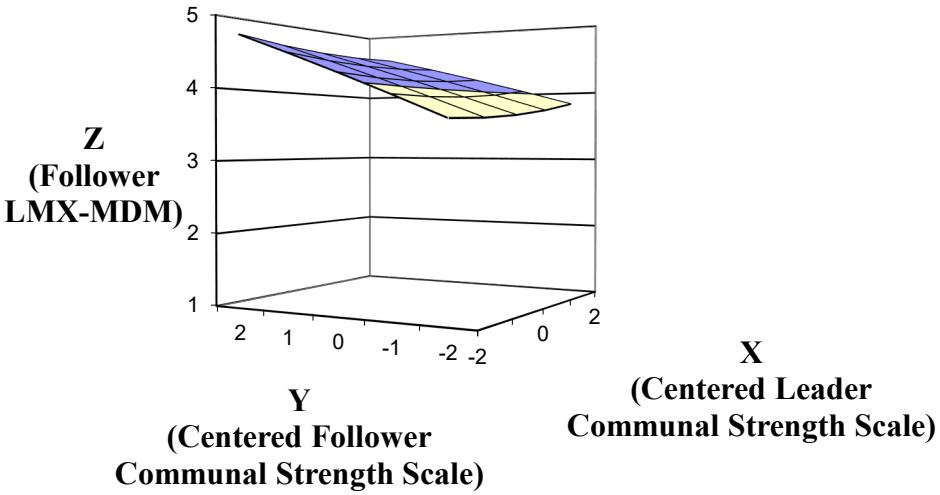
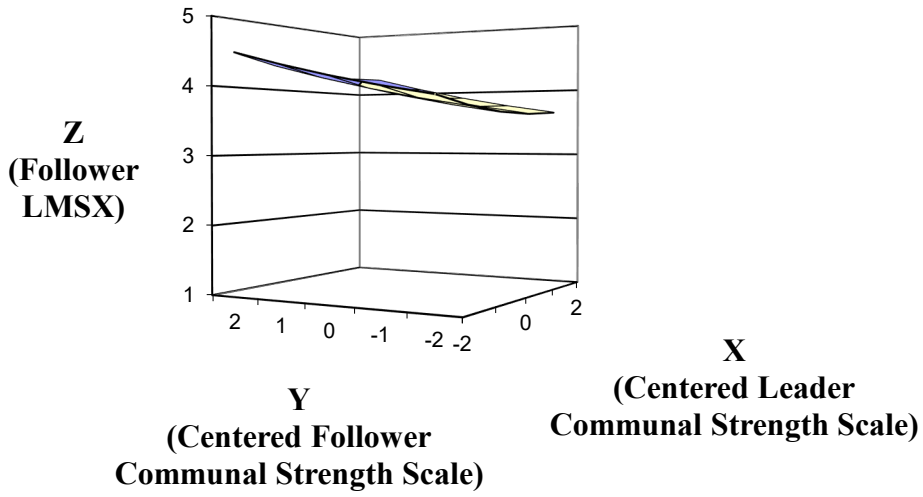


Figure 4.5 Leader-Follower Communal Strength Discrepancy and Follower LMSX



Appendix A: Measures Contextualized to the Leader-Follower Relationship

In the below adapted measures, specific wording changes are bolded, underlined, and italicized. Original measure items that are completely irrelevant to the leader-follower relationship are dropped and noted.

A. Growth and Destiny Beliefs will be measured with the Knee et al. (2003) implicit theories of relationships measure. The response format uses a seven-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*).

Instructions to respondents: Please indicate the extent to which you agree with the following statements.

Original items for Growth Beliefs:

1. The ideal relationship develops gradually over time.
2. A successful relationship evolves through hard work and resolution of incompatibilities.
3. A successful relationship is mostly a matter of learning to resolve conflicts with a partner.
4. Challenges and obstacles in a relationship can make love even stronger.
5. Problems in a relationship can bring partners closer together.
6. Relationships often fail because people do not try hard enough.
7. With enough effort, almost any relationship can work.
8. It takes a lot of time and effort to cultivate a good relationship.
9. Without conflict from time to time, relationships cannot improve.
10. Arguments often enable a relationship to improve.

11. Successful relationships require regular maintenance.

Adapted items for Growth Beliefs:

1. The ideal ***working*** relationship ***with a supervisor/subordinate*** develops gradually over time.
2. A successful ***working*** relationship ***with a supervisor/subordinate*** evolves through hard work and resolution of incompatibilities.
3. A successful ***working*** relationship ***involves*** learning to resolve conflicts with ***my supervisor/subordinate.***
4. Challenges and obstacles make ***a supervisor-subordinate relationship*** even stronger.
5. Problems in a ***supervisor-subordinate*** relationship can bring ***the supervisor and subordinate*** closer together.
6. ***Supervisor-subordinate relationship*** often fail because people do not try hard enough.
7. With enough effort, almost any ***supervisor-subordinate relationship*** can work.
8. It takes a lot of time and effort to cultivate a good ***supervisor-subordinate relationship***.
9. Without conflict from time to time, ***supervisor-subordinate relationships*** cannot improve.
10. Successful ***supervisor-subordinate relationships*** require regular maintenance.

Note that item 10 from the original measure is omitted due to lack of relevancy to the leader-follower relationship.

Original items for Destiny Beliefs:

1. Potential relationship partners are either compatible or they are not.

2. A successful relationship is mostly a matter of finding a compatible partner right from the start.
3. Potential relationship partners are either destined to get along or they are not.
4. Relationships that do not start off well inevitably fail.
5. If a potential relationship is not meant to be, it will become apparent very soon.
6. The success of a potential relationship is destined from the very beginning.
7. To last, a relationship must seem right from the start.
8. A relationship that does not get off to a perfect start will never work.
9. Struggles at the beginning of a relationship are a sure sign that the relationship will fail.
10. Unsuccessful relationships were never meant to be.
11. Early troubles in a relationship signify a poor match between partners.

Adapted items for Destiny Beliefs:

1. ***Supervisors and subordinates*** are either compatible or they are not.
2. A successful ***supervisor-subordinate*** relationship is mostly a matter of finding a ***supervisor/subordinate*** partner right from the start.
3. ***Supervisors and subordinates*** are either destined to get along or they are not.
4. ***A supervisor-subordinate relationship*** that ***does not start off well will inevitably fail.***
5. If a potential ***supervisor-subordinate*** relationship is not meant to be, it will become apparent very soon.
6. The success of a potential ***supervisor-subordinate*** relationship is destined from the very beginning.
7. To last, a ***supervisor-subordinate*** relationship must seem right from the start.

8. A ***supervisor-subordinate*** relationship that does not get off to a perfect start will never work.
9. Struggles at the beginning of a ***supervisor-subordinate*** relationship are a sure sign that the relationship will fail.
10. Unsuccessful ***supervisor-subordinate*** relationships were never meant to be.
11. Early troubles in a ***supervisor-subordinate*** relationship signify a poor match between ***the supervisor and subordinate***.

B. Communal Strength will be measured with the Mills et al. (2004) communal strength measure. The response format is an 11-point scale (0 = *not at all* to 10 = *extremely).*

Original instructions to respondents: Keeping in mind the specific person, answer the following questions. Select one answer for each question on the scale from 0 = *not at all* to 10 = *extremely* before going on to the next question.

Adapted instructions to respondents: Keeping ***your supervisor/subordinate in mind***, answer the following questions. Select one answer for each question on the scale from 0 = *not at all* to 10 = *extremely* before going on to the next question.

Original items for Communal Strength:

1. How far would you be willing to go to visit ——?
2. How happy do you feel when doing something that helps ——?
3. How large a benefit would you be likely to give ——?
4. How large a cost would you incur to meet a need of ——?

5. How readily can you put the needs of —— out of your thoughts?
6. How high a priority for you is meeting the needs of ——?
7. How reluctant would you be to sacrifice for ——?
8. How much would you be willing to give up to benefit ——?
9. How far would you go out of your way to do something for ——?
10. How easily could you accept not helping ——?

Adapted items for Communal Strength:

1. How happy do you feel when doing something that helps ***your supervisor/subordinate, even if they do not immediately help you in return?***
2. How large a benefit would you be likely to give ***your supervisor/subordinate, even if they do not immediately reciprocate the benefit?***
3. How large a cost would you incur to meet a need of ***your supervisor/subordinate?***
4. How readily can you put the needs of ***your supervisor/subordinate*** out of your thoughts?
5. How high a priority for you is meeting the needs of ***your supervisor/subordinate?***
6. How reluctant would you be to sacrifice for ***your supervisor/subordinate?***
7. How much would you be willing to give up to benefit ***your supervisor/subordinate?***
8. How far would you go out of your way to do something for ***your supervisor/subordinate, even if they do not immediately reciprocate in kind?***
9. How easily could you accept not helping ***your supervisor/subordinate?***

Note that item 1 from the original measure is omitted due to lack of relevancy to the leader-follower relationship.

Appendix B: Established Measures in Studies 1 and 2

A. Multidimensional LMX will be measured using Liden and Maslyn's (1998) LMX-MDM. The response format uses a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).

Instructions to respondents: Please answer the following questions about your supervisor/subordinate.

Items:

1. I like my supervisor/subordinate very much as a person.
2. My supervisor/subordinate defends my work actions to a superior/others, even without complete knowledge of the issue in question.
3. My supervisor/subordinate would come to my defense if I were 'attacked' by others.
4. My supervisor/subordinate is the kind of person one would like to have as a friend.
5. My supervisor/subordinate is a lot of fun to work with.
6. My supervisor/subordinate would defend me to others in the organization if I made an honest mistake.
7. I respect my supervisor/subordinate's knowledge of an competence on the job.
8. I am willing to apply extra efforts, beyond those normally required, to further the interests of my work group.
9. I do work for my supervisor/subordinate that goes beyond what is specified in my job description.
10. I am impressed with my supervisor/subordinate's knowledge of his/her job.
11. I admire my supervisor/subordinate's professional skills.

B. Social Exchange LMX will be measured using Bernerth et al. (2007) LMSX. The response format uses a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).

Instructions to respondents: Please answer the following questions about your relationship with you supervisor/subordinate.

Items:

1. My manager/subordinate and I have a two-way exchange relationship.
2. I do not have to specify the exact conditions to know my manager will return a favor.
3. If I do something for my manager/subordinate, he or she will eventually repay me.
4. I have a balance of inputs and outputs with my manager/subordinate.
5. My efforts are reciprocated by my manager/subordinate.
6. My relationship with my manager/subordinate is composed of comparable exchanges of giving and taking.
7. When I give effort at work, my manager/subordinate will return it.
8. Voluntary actions on my part will be returned in some way by my manager/subordinate.

C. Emotional Tone will be measured using the Alternate Emotional Tone Index (ETI: Beckes, 2009; Berscheid et al., 1989) based on Gooty and colleagues' (2019) adaptations for the leader-follower relationship. The response format uses a seven-point scale (1 = *never* to 5 = *very often*).

Instructions to respondents: How often do you experience each of the following emotions in your relationship with your subordinate/supervisor?

Items:

1. Excited
2. Elated
3. Joyful
4. Happy
5. Passionate
6. Delightful
7. Serene
8. Satisfied
9. Wanted/cared for
10. Content
11. Optimistic
12. Angry
13. Fearful
14. Jealous
15. Irritated
16. Hostile
17. Disgusted
18. Rejected
19. Sad
20. Guilty
21. Worried

22. Disappointed

23. Depressed

24. Lonely

25. Calm

26. Needed

27. Surprise

28. Distressed

D. Reciprocal Interdependence will be measured using a measure of reciprocal interdependence created by Pearce & Gregersen (1991) and adapted to the leader-follower relationship by Sin et al. (2009). The response format uses a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Instructions to respondents: Rate the extent to which you agree with the following statements.

Items:

1. I work closely with my supervisor/subordinate in doing my work.
2. I frequently must coordinate my efforts with my supervisor/subordinate.
3. My own performance is dependent on receiving accurate information from my supervisor/subordinate.
4. The way I perform my job has a significant impact on my supervisor/subordinate.
5. My work requires me to consult with my supervisor/subordinate fairly frequently.

E. Communication Frequency will be measured using a measure of communication frequency developed by Kacmar et al. (2003). The response format uses a five-point scale (1 = *less than once a month* to 5 = *more than once a day*).

Instructions to respondents: How frequently do you…

Items:

1. Write memos to your boss/subordinate?
2. Receive memos from your boss/subordinate?
3. Initiate face-to-face conversations with your boss/subordinate?
4. Have face-to-face conversations with your boss/subordinate that were initiated by him or her?
5. Send your boss/subordinate an electronic mail message?
6. Receive an electronic mail message from your boss/subordinate?
7. Call your boss/subordinate on the phone?
8. Receive phone calls from your boss/subordinate?

F. Social Desirability will be measured using a short form of the Marlow-Crowne measure developed by Strahan and Gerbasi (1975). The scale uses a true/false response format.

Instructions to respondents: Please indicate if the following statements are true or false about yourself.

Items:

1. I'm always willing to admit it when I make a mistake.
2. I always try to practice what I preach.
3. I never resent being asked to return a favor.
4. I have never been irked when people expressed ideas very different from my own.
5. I have never deliberately said something that hurt someone's feelings.
6. I like to gossip at times.
7. There have been occasions when I took advantage of someone.
8. I sometimes try to get even rather than forgive and forget.
9. At times I have really insisted on having things my own way.
10. There have been occasions when I felt like smashing things.

Appendix C: Study 1 Measurement Equivalence Analyses

Growth and Destiny Beliefs

I performed the Box's M test as Step 0 to compare the variance-covariance matrices of the leader and follower groups. The Box's M statistic was significant, indicating the need to move on to Step 1 to gain a more detailed understanding of measurement equivalence among the leader and follower groups. The model fit indices for steps one through four with the ITR measure are depicted in Table A.1. For Step 1, the CFI and TLI values were at or above their recommended cutoffs of .90 and the RMSEA was under .10. As such, the ITR measure demonstrates configural invariance for the leader and follower groups meaning that the same two-factor structure exists for both groups. For Step 2, the CFI, TLI, and RMSEA values again met the recommended cutoffs and the Chi-square difference test was not significant; thus, providing evidence for metric invariance. This indicates that the relationship between the items and the growth and destiny factors are the same for both leaders and followers.

For scalar invariance analyses in Step 3, while the CFI, TLI, and RMSEA values met the recommended cutoffs, the Chi-square difference test was significant at $p < .01$. As such, I examined the intercepts of the indicators for both the leader and follower groups to identify which indicator(s) demonstrated a discrepancy among groups. Here, item 8 from the destiny beliefs scale, "A supervisor-subordinate relationship that does not get off to a perfect start will never work," was discrepant, with leaders demonstrating a higher intercept value. A lack of scalar invariance may be warranted theoretically depending on the construct and the sample groups (Vandenburg & Lance, 2000). However, a lack of scalar invariance can also reflect leniency bias from a particular group (Bollen, 1989; Vandenburg & Lance, 2000).

Based on previous theoretical and empirical work in LMX (Dienesch & Liden, 1986; Graen & Cashman, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995), leaders are the higher power member of the leader-follower dyad and typically initiate the opportunity to develop a social exchange relationship (i.e., role sending). The leader evaluates the follower's response to this sent role and decides whether or not to provide a second opportunity. In this sense, if the relationship gets off to a poor start, leaders are less likely to enter the role making phase with that follower, which ultimately precludes the progression into role routinization for the social exchange relationship. As leaders are conceptualized as the gatekeepers in this process, it makes sense that their response to item 8 in the destiny beliefs scale would have a higher intercept than followers as leaders get to make this call of whether or not a relationship will work (per the role making process of LMX).

Thus, I reassessed the model fit for Step 3 using partial equivalence analyses based on the above theoretical justification. Partial equivalence analyses implement controls for minor sources of measurement inequivalence (e.g., Bagozzi & Edwards, 1998; Steenkamp & Baumgartner, 1998; Vandenburg & Lance, 2000). I freed item 8 on the destiny belief scale such that it was not constrained to be equal among leaders and followers. This model met the recommended cutoffs for CFI, TLI, and RMSEA values and the Chi-square difference test was not significant. This provides evidence for partial scalar invariance. Given the above theoretical justification and the relaxing of constraints for only one indicator, these partial equivalence analyses meet the recommendations of Vandenburg and Lance (2000).

For Step 4, the CFI, TLI, and RMSEA values again met the recommended cutoffs and the Chi-square difference test was not significant. As such, invariant uniqueness was demonstrated as there was equivalence across both the leader and follower groups for the unique variance in

the indicators. In sum, according to Vandenberg and Lance (2000) recommendations for decision making in the sequence of measurement equivalence analyses, the ITR growth and destiny measure demonstrated partial equivalence across leader and follower groups and cross-group comparisons can be made.

Communal Strength

First, I performed the Box's M test for Step 0 to compare the variance-covariance matrices for the leader and follower groups. The Box's M statistic was significant, so I proceeded to Step 1 of the measurement equivalence analyses. The model fit indices for Steps one through four with the communal strength measure are depicted in Table A.2. For Step 1, the CFI and TLI values exceeded the recommended cutoffs at .97 and .95 respectively, and the RMSEA was .10. As such, the communal strength measure demonstrates configural invariance with the same one-factor structure for the leader and follower groups.

For metric invariance analyses in Step 2, while the CFI and TLI values met the recommended cutoffs, the Chi-square difference test was significant at $p < .01$. Notably, Vandenburg and Lance (2000) identified the use of partial equivalence analyses as most common with the metric invariance step in their review of the measurement equivalence literature (e.g., Bagozzi & Edwards, 1998; Byrne, 1991; Byrne et al., 1989; Reise et al., 1993; Steenkamp & Baumgartner, 1998). As such, I examined the factor loadings for both the leader and followers groups and found item 3, "How large a cost would you incur to meet a need of your supervisor/subordinate?" was largely discrepant, with the leaders' factor loading doubling the followers in size. Theoretically, the formal role of the leader involves addressing and managing follower needs so that they can adequately perform their job; whereas, this job requirement is not necessarily typical of the follow role. Thus, it seems logical that the factor loading (i.e., the

regression slope relating the item to the latent variable) would be stronger for leaders as they may incur costs for a follower from both a relational *and* a formal job requirement perspective.

I reassessed the model fit for Step 2 using partial equivalence analyses by freeing item 3 such that the factor loading was not constrained to be equal among leaders and followers. This model exceeded the recommended cutoffs for CFI and TLI at .97 and .96 respectively, demonstrated a RMSE under .10, and the chi-square difference was not significant. This provides evidence for partial metric invariance and I proceeded to Step 3 per the decision-making recommendations of Vandenburg and Lance (2000). In Step 3, I allowed for item 3 to again be freely estimated, while all other items were constrained to have equal factor loadings and intercepts across the leader and follower groups. This model met the recommended cutoffs for CFI, TLI, and RMSEA values and the Chi-square difference test was not significant. As such, these analyses provide evidence for partial scalar invariance where the intercepts of the indicators were equivalent among the leader and follower groups, with the exception of item 3.

Finally, in step 4, I constrained the data to have equal factor loadings and intercepts for item 3 (per the above Steps 2 and 3). While this model demonstrated excellent fit statistics, the chi-square difference was significant, indicating that the unique variance in the indicators were not equivalent across leader and follower groups. I further probed this model by conducting a multivariate score test to demonstrate how freeing all equality constraints improves the fit over the base model (i.e, the model from Step 3). As expected, only item 3 demonstrated a significant chi-square difference. Thus, by controlling for item 3, the communal strength measure demonstrates partial equivalence. Given the theoretical justification above and the relaxing of constraints for only one indicator, this meets Vandenburg and Lance's (2000) requirements for comparisons across the leader and follower groups.

Table A.1: Study 1 Measurement Equivalence Model Fit Indices - Growth and Destiny Beliefs

Model	CFI	TLI	χ^2	*df*	Difference	RMSEA
Configural invariance	.91	.90	740.75**	302		.09
Metric invariance	.91	.90	764.77**	319	24.02	.08
Scalar invariance	.90	.90	795.57**	336	30.80*	.08
Partial scaler invariance	.91	.90	788.84**	335	24.07	.08
Invariant uniqueness	.90	.91	819.08**	355	30.24	.08

Note. Leaders = 200, Followers = 200. * $p < .01$, ** $p < .001$. CFI = comparative fit index; TLI = Tucker-Lewis index; Difference = difference in chi-square from the next model; RMSEA = root-mean-square error of approximation.

Table A.2: Study 1 Measurement Equivalence Model Fit Indices - Communal Strength

Model	CFI	TLI	χ^2	*df*	Difference	RMSEA
Configural invariance	.97	.95	52.00**	18		.10
Metric invariance	.95	.94	75.71**	23	23.71**	.11
Partial metric invariance	.97	.96	54.30**	22	2.30	.09
Partial scalar invariance	.97	.97	56.65*	27	2.36	.07
Partial invariant uniqueness	.96	.96	79.57**	34	22.92**	.08

Note. Leaders = 200, Followers = 200. * $p < .01$, ** $p < .001$. CFI = comparative fit index; TLI = Tucker-Lewis index; Difference = difference in chi-square from the next model; RMSEA = root-mean-square error of approximation. * $p < .001$.