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A STRESS PERSPECTIVE OF LEADER-FOLLOWER RELATIONSHIP AMBIVALENCE

by

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in the Department of Psychology
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at the University of Central Florida
Orlando, Florida

Spring Term
2024

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ABSTRACT

Ambivalence is the experience of both positive and negative evaluations regarding an object such as a person or an event. Although interest in leadership ambivalence has been growing among researchers, there is still little understanding of what distinguishes it from poor leadership. The goal of this dissertation was to contribute to the leadership ambivalence literature by examining ambivalence in the leader-member exchange (LMX) relationship through the lens of occupational stress. Specifically, I used the job demands-resources model as a theoretical foundation and presented leadership ambivalence as a unique job demand that is associated with emotional exhaustion as a symptom of strain after controlling for LMX quality. I also examined the mediating role of rumination and the moderating role of various personal resources. While leadership ambivalence was not a significant direct predictor of emotional exhaustion, the results supported rumination as a mediator of a significant indirect relationship between the two variables. Optimism, tolerance for ambiguity, and neuroticism were not significant moderators of the effect of leadership ambivalence. However, internal locus of control moderated the relationship between leadership ambivalence and rumination such that the relationship was stronger for those with low internality. In further supplementary analysis, the results were validated using an alternative measure of leadership ambivalence.

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CHAPTER ONE: INTRODUCTION

Ambivalence is a psychological state characterized by the experience of coexisting strong and opposite orientations (e.g., attitudes, cognitions, or emotions) toward an object (Baek, 2010; Guarana & Hernandez, 2015; Rothman et al., 2017). In recent years, ambivalence has been receiving increasing attention from researchers in a variety of fields, including psychology, management, sociology, and marketing (Zhao & Zhou, 2021). In organizational research, leading journals have published over 245 studies related to ambivalence since the year 2000 (Rothman et al., 2017). Despite the growing evidence of the pervasiveness of ambivalence (Ashforth et al., 2014), much is yet to be discovered about its association with various workplace positive and negative outcomes (Zhao & Zhou, 2021).

A strong indicator of the growing interest in and pervasiveness of ambivalence is the wide range of contexts in which it has been studied. In terms of the object of ambivalence, ambivalence has been studied in non-interpersonal relationship settings such as the individuals' perception of organizational justice variability (Matta et al., 2017), the organization as an employer (D'Cruz & Noronha, 2015; Follmer et al., 2018; Vadera & Pratt, 2013), and the job itself (Ziegler et al., 2012). Ambivalence has also been studied in interpersonal relationships including marriage (Birmingham et al., 2015; Uchino et al., 2013, 2014), the parent-child relationship (Fingerman et al., 2006; Major et al., 1997; Priester & Petty, 2001), friendships (Gramer & Supp, 2014; Major et al., 1997), social networks (Uchino et al., 2012), and coworker relationships (Brennecke, 2020; Bridge & Baxter, 1992), as well as relationship between

students and their advisors (Hobman et al., 2009), and employees and their mentors (Hurst & Eby, 2012).

An object of ambivalence that has only recently begun receiving attention is the leader-follower relationship (Dechawatanapaisal, 2020; Herr et al., 2022; Lee et al., 2019; Zhao & Zhou, 2021). This research builds on various theories of leadership including one of the leading theories in the leadership literature, leader-member exchange (LMX, Graen & Uhl-Bien, 1995), which is concerned with the quality of the unique relationship between a leader and a follower. The LMX literature has studied the quality of the exchange using a univalent approach in which it is assessed on a continuum with high quality LMX on one end and low quality LMX on the other end. Although various constructs have emerged to study nuances in the nature of LMX, such as LMX differentiation (Henderson et al., 2009) and LMX social comparison (Vidarthi et al., 2010), only recently has the LMX literature begun to address the possibility of an ambivalent exchange in which the follower experiences simultaneous positive and negative perceptions of their relationship with the leader. The few existing studies on LMX ambivalence have shown that LMX ambivalence is related to task performance, employee creativity, organizational embeddedness, career commitment, unethical pro-organizational behaviors, and proactive work behaviors (Chen & Weng, 2023; Dechawatanapaisal, 2020; Lee et al., 2019; Lin & Du, 2023), even after controlling for LMX quality (Chen & Weng, 2023; Lee et al., 2019).

In this dissertation, I extend the nascent literature on leadership ambivalence in general and LMX ambivalence specifically by examining the relationship between LMX ambivalence and emotional exhaustion. I argue that the conflicting nature of ambivalence causes individuals to feel more pressed to resolve the conflict between their opposing evaluations of their

relationship with their supervisor. In doing so, ambivalence causes those employees to exert more cognitive effort compared to their counterparts who are not experiencing ambivalence. This makes an ambivalent exchange with the supervisor a unique job demand, as defined by the Job Demands-Resources model (Bakker & Demerouti, 2014), above and beyond a negative exchange. It also implies that cognitive effort, which I study in the form of rumination about the relationship with the leader, should act as a mediator of the relationship between LMX ambivalence and emotional exhaustion. Finally, I examine two personal resources, optimism and tolerance for ambiguity, which affect the individual's approach to processing information and motivation to engage in cognitive effort, respectively, and thus should help to buffer the negative implications of LMX ambivalence.

The current study contributes to the leadership literature in general and to the LMX literature specifically by addressing a more complex view of the relationship between leaders and followers through the lens of ambivalence. Rather than looking at leadership from a purely positive approach (e.g., transformational leadership, servant leadership, authentic leadership) or a purely negative approach (e.g., abusive supervision, supervisor undermining), this dissertation contributes to our understanding of a more nuanced perspective, that leadership may have both positive and negative attributes at the same time. By presenting and testing the hypothesized relationships, this study expands the known nomological network of the LMX ambivalence construct and contributes to the validation efforts of its measure.

The study also contributes to the occupational health psychology domain and the stress literature by examining a unique stressor, leadership ambivalence, through the lens of the Job Demand-Resources model and establishing it as a distinct job demand above and beyond LMX

quality. Such an approach opens the door to other possible applications of JD-R focusing on other objects of ambivalence. This research also offers an explanation for the mechanism by which leadership ambivalence acts as a stressor by suggesting that it induces cognitive effort above and beyond that which results from having a low-quality relationship with a supervisor. Thus, this research not only shows that LMX ambivalence can lead to emotional exhaustion, but clarifies why that relationship occurs. Finally, this research makes both a practical and theoretical contribution by investigating the role of personal resources in buffering the stress effect of leadership ambivalence. This approach provides insight into why individuals may be more or less impacted by leadership ambivalence as a stressor and points to possible interventions to reduce the negative effects of LMX ambivalence.

In what follows, I begin by introducing the concept of ambivalence in general, and then proceed to describe past literature on relational ambivalence across non-organizational, organizational, and leadership relationship contexts. I then introduce the LMX-based conceptualization of ambivalence, followed by a brief summary of the Job Demands-Resources model and the introduction of rumination as a mediating factor explaining the mechanism through which LMX ambivalence leads to emotional exhaustion. Finally, I will present arguments for optimism and tolerance for ambiguity as moderating variables before presenting the methodology and results of my dissertation study.

CHAPTER TWO: AMBIVALENCE

Although the experience of simultaneous positive and negative orientations (e.g., attitudes, cognitions, emotions) toward an object is a common phenomenon in organizations (Ashforth et al., 2014), the mechanisms by which such ambivalence leads to various outcomes are not fully understood (Zhao & Zhou, 2021). In this introduction to ambivalence, I will define ambivalence and further explain the concept by summarizing the literature on how ambivalence develops, how it is measured, the objects of ambivalence, and the unique effect of ambivalence on the individual's psychological experience.

Understanding Ambivalence

Baek (2010) described ambivalence as the psychological state of individuals who encounter "objects or events that lead them to report internal conflicts or mixed feelings on the objects or events" (p. 609). The mixed feelings described by Baek have been attributed to the coexistence of positive and negative orientations (Baek, 2010). The coexistence of opposing orientations suggests a multidimensional nature that is not uncommon in a variety of psychological constructs. To explain the coexistence of opposing orientations as a psychological state, researchers have suggested thinking about positive and negative orientations in the form of a grid rather than a continuum (Baek, 2010; Lewicki et al., 1998). With the grid structure, four quadrants are formed. One quadrant represents a high level of the positive orientation and a low level of the negative orientation. This is simply a positive orientation. Another quadrant represents a high level of the negative orientation and a low level of the positive orientation,

indicating a negative orientation. The third quadrant represents low levels of both positive and negative orientations and represents the psychological state of indifference (Baek, 2010).

Finally, the fourth quadrant that represents high levels of both positive and negative orientations indicates the psychological state of ambivalence (Baek, 2010).

For an example using a relatable concept, Lewicki, McAllister, and Bies (1998) proposed a theoretical conceptualization of trust that is distinct from distrust, allowing the two experiences to coexist in an individual's orientation toward the same object (e.g., a person) (Lewicki et al., 1998). If trust is treated as a continuum, complete trust would be on one end while complete distrust would be on the other end, with a neutral state in the middle. Instead, Lewicki and colleagues explain that trust can be viewed as a grid formed by two axes. Trust, representing the positive orientation, ranges from low trust to high trust on the y-axis. Distrust, the negative orientation, ranges from low distrust to high distrust on the x-axis. In this example, ambivalence is defined as simultaneous trust and distrust within relationships and is represented by the region of the grid where high trust and high distrust coincide. In their theoretical argument, the authors call for a departure from unidimensionality of attitudes and encourage researchers to consider positive *and*, instead of *or*, negative attitudes.

How Ambivalence Develops

Researchers have taken different approaches to examine how ambivalence begins. The number of incidents supporting the contrasting states, the nature of the originating dimension of the contrasting states (e.g., emotions, attitudes, or cognitions), and the accessibility of the contrasting states have all been proposed as factors of interest when attempting to understand

how ambivalence begins. In this section, I will present three theoretical explanations of how ambivalence develops.

The gradual threshold model of ambivalence (Priester & Petty, 1996) suggests that individuals typically hold a dominant orientation (e.g., a positive attitude toward an object), but they may be exposed to incidents that support the opposing orientation (i.e., a negative attitude toward the same object). The model distinguishes between objective ambivalence as the exposure to the opposing orientation and subjective ambivalence which is the psychological experience of ambivalence. Specifically, the model suggests that subjective ambivalence is not experienced by the individual until a threshold of the number of incidents of exposure to the opposing orientation is reached. At that point, the individual is said to experience subjective ambivalence. In other words, a dominant orientation remains dominant until the number of incidents reinforcing an alternative orientation reaches a certain threshold. That is when the alternate orientation is perceivable and the individual experiences ambivalence.

An alternative theory of how ambivalence begins focuses on ambivalence in response to change and can possibly extend to human relationships (Piderit, 2000). This theory holds that an individual's response to an object or an event is multidimensional. For example, a response can contain emotional, cognitive, or attitudinal dimensions. Ambivalence can originate from contrasting orientations within or between the dimensions. In other words, the individual may experience ambivalence if they have a positive cognitive evaluation and a negative emotional evaluation toward the object of ambivalence. The theory also states that it is possible for ambivalence to be experienced due to contrasting evaluations within a single dimension (e.g., within the emotional dimension, as in simultaneous positive and negative emotional response).

Finally, the dual attitude model focuses on attitudinal ambivalence and suggests a hierarchical structure of the degree of accessibility of the opposing attitudes which plays a role in the experience of ambivalence (Wilson et al., 2000). The model proposes that when a person's attitude changes toward an object, the new attitude does not replace the existing attitude. Instead, the two attitudes coexist and cause ambivalence. This explanation involves the presence of dual attitudes: explicit and implicit. The implicit attitude is more readily accessible to the individual and is more likely to be endorsed unless the individual has the cognitive capacity to retrieve the explicit attitude. For instance, an individual who has an implicit negative attitude toward a racial group may adopt an explicit positive attitude after receiving diversity training. The newly acquired attitude does not entirely replace the previously existing attitude. The implicit negative attitude remains the dominant attitude governing the individual's behavior in situations where the individual does not have the cognitive capacity to retrieve and enact the explicit positive attitude acquired during training.

It is important to acknowledge the existence of these different theoretical explanations because they have led to different manners in which ambivalence is operationalized and captured in research. In the next section, I will summarize the ways in which ambivalence is measured and explain the choice of measure for this study.

How Ambivalence Is Measured

Ambivalence can be measured objectively or subjectively (Priester & Petty, 1996; van Harreveld et al., 2015). Methods that capture ambivalence by separately measuring the opposing orientations and mathematically deriving their interactions are considered objective

measures (Bassili, 1996; Thompson et al., 1995). This label is used even when the opposing orientations are subjectively measured. The mathematical derivation of ambivalence from measure of opposing orientation can be done with various formulas. Priester and Petty (1996) summarized previously presented models of objectives ambivalence including the conflicting reactions model (Kaplan, 1972), the positive acceleration model (Brown & Farber, 1951), the similarity-intensity model, which is commonly known as the Griffin model (Thompson et al., 1995), and the cross-product model (Katz et al., 1986) The cross-product model defines ambivalence as the product of an individual's "pro" and "anti" scores toward an object (Katz et al., 1986). Examining the interaction between a predictor variable and a moderator variable in a multiple regression model is a form of applying the cross-product model. When the two variables represent the opposing orientations toward the same object, ambivalence is captured.

Subjective ambivalence is concerned with the emergent psychological experience from exposure to opposing orientation (Bassili, 1996; Thompson et al., 1995). Measures of subjective ambivalence aim to capture the individual's perception of the presence of mixed emotions, attitudes, or cognitions toward the object of interest (Priester & Petty, 1996). For instance, Priester and Petty (1996) measured attitudinal ambivalence using three items derived from the tri-partite nature of attitudes (Ostrom, 1969). Specifically, the measure captured behavioral, cognitive, and affective components of attitude by soliciting information from participants regarding indecision, mixed, and conflicted orientations, respectively, toward an object (Priester & Petty, 1996).

Objective and subjective ambivalence are distinct (Priester & Petty, 1996). In other words, the existence of conflicting associations about an object or event is not the same as the felt experience of this conflict (Bassili, 1996; Thompson et al., 1995). Some researchers argue that subjective ambivalence may be more critical than objective ambivalence from a practical point of view since it is more salient and intense (Ashforth et al., 2014; Lee et al., 2019). Behavioral outcomes are more likely to be impacted by ambivalence when it is felt and perceived, which is the case with subjective ambivalence rather than objective ambivalence which can potentially be ignored (Ashforth et al., 2014; Costarelli & Colloca, 2004). As a result, the focus of this study is perceptions of subjective ambivalence.

The Unique Effect of Ambivalence

Ambivalence has been found to have a unique impact on various outcomes. More specifically, several studies have empirically demonstrated the value of separating the variance related to ambivalence from that related to purely positive or negative orientations. Using social network analysis, Uchino and colleagues (Uchino et al., 2001, 2004) argued that the failure to methodologically separate the co-occurring positivity and negativity in social relationships from the occurrence of only positivity or only negativity obscured the associations between relationships and psychological outcomes. Specifically, in one study (Uchino et al., 2001), the authors addressed the relationship between positive, negative, and ambivalent social ties on one hand and cardiovascular health during stress on the other, with cardiovascular health expressed as age-related differences in depression and sympathetic control of heart rate reactivity. This study confirmed the role that the quality of social ties plays

in cardiovascular health and revealed unique variance that is attributable to ambivalent ties, separate from positive and negative ties. Similar results were found in a separate study where the number of positive, aversive (or negative), and ambivalent social ties was considered (Uchino et al., 2004). Specifically, the number of ambivalent ties was identified as an independent predictor of psychological distress, separate from aversive ties.

Taken together, these studies emphasize the importance of separating the variance due to positive, negative, and ambivalent social relationships. Therefore, in the current study, I will isolate the effect of leadership ambivalence by controlling for the positive or negative quality of the exchange between the individual and their leader.

CHAPTER THREE: RELATIONAL AMBIVALENCE

As highlighted in the previous chapter, ambivalence has been studied in relation to a variety of objects, including non-person objects, such as corporate reputation (Brooks & Highhouse, 2006), organizational change (Piderit, 2000), the organization as an employer (D’Cruz & Noronha, 2015; Follmer et al., 2018; Vadera & Pratt, 2013), and the job itself (Ziegler et al., 2012). Because the current study ultimately focuses on ambivalence in the relationship between leaders and followers, this chapter describes the broad strokes of the relevant literature on relational ambivalence beginning with personal and workplace relationships before focusing on leadership ambivalence.

Relational Ambivalence in Non-Leadership Relationships

Outside of the organizational literature, various interpersonal relationships have been studied as an object of ambivalence. For example, ambivalence has been identified in marriage (Birmingham et al., 2015; Uchino et al., 2013, 2014), the relationship between parents and children (Fingerman et al., 2006; Major et al., 1997; Priester & Petty, 2001), friendship (Gramer & Supp, 2014; Major et al., 1997), and social networks in general (Uchino et al., 2012). A notable theme in this literature is the cross-domain stress-buffering effect and the within-domain stress exacerbation effect (Hobman et al., 2009). Specifically, when individuals perceive a relationship with a particular person as a stressor, such as in the case of a student working with an abusive advisor, support received from the abusive advisor (i.e., within domain) exacerbates the stress effect (Hobman et al., 2009). Alternatively, support received from a

source other than the source of stress (i.e., cross domain), such as team members rather than the advisor, buffers the stress effect (Hobman et al., 2009). In more specific terms, Hobman and colleagues (2009) demonstrated that in the presence of high advisor support, a significant positive relationship between abusive supervision by the advisor and anxiety and a significant negative association between abusive supervision and psychological well-being were found. In contrast, these relationships were negligible in the presence of support from a team member which acts as a stress buffer.

The exacerbation hypothesis has also been demonstrated in patient care relationships. One study showed that individuals who receive support during a stressful life event from a person toward whom they have ambivalent attitudes are more likely to experience distress (Major et al., 1997). The stressful life event examined during this study was abortion. Pre-abortion social conflict predicted post-abortion distress and the association was strengthened by the presence of pre-abortion social support. In other words, patients experienced more distress when they received support from an individual with whom they have a history of both support and conflict compared to individuals with whom they have a history of conflict alone, thus demonstrating the exacerbation hypothesis.

Within the workplace, ambivalence has been studied in non-leadership relationships, such as coworker relationships (Brennecke, 2020; Bridge & Baxter, 1992) and relationships with mentors (Hurst & Eby, 2012). For example, Duffy et al. (2002) examined coworker ambivalence in the form of the interaction between coworker support and coworker undermining. The study demonstrated a statistically significant negative relationship between an employee's experience of worker ambivalence, indicated by the interaction between coworker

undermining and support, and organizational commitment. Specifically, the lowest levels of organizational commitment were found when both coworker undermining and support were high (Duffy et al., 2002).

Most research on relational ambivalence in organizations has focused on leader-follower relationships (e.g., Dechawatanapaisal, 2020; A. Lee et al., 2019; Zhao & Zhou, 2021). Because the leader-follower relationship is the interpersonal relationship of interest in this study, the following section is dedicated to providing an overview of the leadership ambivalence literature.

Leadership Ambivalence

A key interpersonal relationship within organizations in which ambivalence has been identified is the relationship between leaders and employees. Although the literature on this topic is fairly small at this point in time, a number of studies have been conducted that lay the groundwork for the focus on LMX ambivalence in this dissertation. Overall, these studies demonstrate through a variety of constructs studied and methodologies used that leadership ambivalence has uniquely negative implications for employees.

Leadership ambivalence has been found to be associated with counterproductive work behaviors (CWB) in several empirical studies. Lian et al. (2012) found that high quality LMX exacerbated the relationship between abusive supervision and organizational deviance, and the effect was mediated through psychological need satisfaction (Lian et al., 2012). In this study, objective ambivalence was operationalized as the simultaneous experience of abusive supervision and high LMX, which may seem like an unlikely event. However, the researchers

explained that abusive supervision represents specific behaviors while LMX indicates a general relationship. In other words, even when an employee has a generally positive relationship with their supervisor, occasional negative behaviors are still possible within that relationship.

Drawing on self-determination theory (Deci & Ryan, 2012), the researchers suggested that subordinates with high LMX typically feel acknowledged, supported, and trusted by their supervisors, and thus supervisors represent an important source for fulfilling their needs for competence, belongingness, and autonomy. Therefore, when employees experience abusive supervision within the high LMX relationship, they feel especially threatened and deprived.

Similar to the Lian et al. (2012) study, Valle et al. (2019) found that employees with abusive supervisors engaged in moral disengagement strategies and subsequently in organizational deviance behaviors (Valle et al., 2019). This relationship was exacerbated by the presence of high-quality leader-member exchange (LMX), providing an example of the within-domain exacerbation effect in the leadership ambivalence literature. This effect was explained using social exchange theory (Blau, 1964), suggesting that conflict was perceived by employees as a violation of a psychological contract with their leader. In this study, objective ambivalence was captured as the interaction between abusive supervision as the negative orientation and high quality LMX as the positive orientation. Thus, deviance behaviors were highest when both LMX quality and abusive supervision were high.

With a similar operationalization of objective ambivalence using moderation analysis, Duffy and colleagues (2002) found that the interaction between supervisor undermining and supervisor support was negatively associated with self-efficacy and organizational commitment. Additionally, this interaction was positively associated with active and passive

counterproductive work behavior, as well as somatic complaints, a measure of psychological well-being. In other words, outcomes were the most negative when supervisor undermining and support were both high, above and beyond the main effects of either predictor alone. In terms of theoretical backing, this study did not cite any particular theory to explain the effect of the interaction. Instead, the researchers relayed the evidence of within-domain exacerbation demonstrated by prior studies of relational ambivalence.

Nahum-Shani et al. (2014) drew from uncertainty management theory (Lind & Van den Bos, 2002) to explain the exacerbating effect of supervisor support on the negative relationship between supervisor undermining and the employee's predicted perceived health. In this study, the researchers argued that the coexistence of support and undermining reflects inconsistency which creates uncertainty regarding the intentions and trustworthiness of the supervisor. If the inconsistency is not managed, it might have a negative impact on the employee's well-being by violating their perceived self-evaluation, impeding their ability to predict and control their environment, and signaling a risk of job loss. It is worth noting that this study also examined the buffering role of personal factors on the employee's perceived strain and found that it was worse in employees with low self-esteem and low quality of work life (Nahum-Shani et al., 2014).

Another study that linked leadership ambivalence with symptoms of strain as well as counterproductive workplace behavior found that high LMX quality exacerbated the relationship between abusive supervision and employee's silence behavior, such that silence was highest when both abusive supervision and LMX were high (Xu et al., 2015). The effect was

mediated through emotional exhaustion and explained using Conservation of Resources Theory (Hobfoll, 1989).

A recent study used a multilevel modeling approach to examine group-level associations of ambivalent leadership and mental health indicators within teams reporting to the same supervisor (Herr et al., 2022). The study used a subjective approach to capture leadership ambivalence by mathematically deriving it from a leadership behavior survey using the Griffin mathematical formula (described in an earlier section of this document). The researchers used the Social Ambivalence and Disease (SAD) model (Holt-Lunstad & Uchino, 2019) to theoretically support their argument, asserting that ambivalent social relationships are not helpful in coping with stress. The study found support for a link between group-level leadership ambivalence and depression, anxiety, vital exhaustion, and fatigue.

Finally, another recent study explored paradoxical leader behavior as an antecedent of leadership ambivalence, as well as creativity as an outcome of it (Zhang et al., 2022). The study also demonstrated that holistic thinking styles play a role in determining how individuals respond to paradoxical leadership behaviors and the experience of ambivalence. Specifically, low holistic thinkers showed more positive association between paradoxical leadership and subjective ambivalence, and more positive association between ambivalence and creativity. This study examined leadership ambivalence subjectively using Priester and Petty's three-item scale (Priester & Petty, 1996). In terms of the theoretical rationale, this study used the meaning maintenance model (Proulx & Inzlicht, 2012) which suggests that individuals rely on mental representations of expected associations to understand events. Violations of meaning motivate individuals to engage in compensatory behaviors, such as engaging in creative problem solving.

Although prior research on leadership ambivalence is limited, there are trends and gaps that can inform the next steps needed to elucidate our understanding of leadership ambivalence. Upon reflecting on the methods used in prior research, it is evident that the literature has been dominated by objective methods of capturing ambivalence. Specifically, studies have tended to utilize moderation analysis to examine the interaction between the opposing orientations of interest is a widely popular approach. Only in very recent research did subjective measures of leadership ambivalence began to appear in this literature (e.g., Herr et al., 2022; Zhang et al., 2022). As discussed in an earlier chapter, the objective experience of ambivalence may exist without the individual experiencing it subjectively, and it is the subjective experience that is more likely to drive psychological and behavioral outcomes. Therefore, the leadership ambivalence literature can benefit from expanding on the use of measures of subjective ambivalence, ideally ones that are rooted in widely accepted leadership theories.

Another takeaway from the studies summarized in this section is the demonstration of leadership ambivalence as a stressor. This does not come as a surprise since stress has been linked to ambivalence in other relationships, but these studies expand those findings to relationships with leaders within organizations. The articles referred to a variety of stress-related concepts, including uncertainty, increased cognitive demand, various symptoms of strain, and a buffering effect of personal and workplace resources. Nevertheless, only a few studies utilized well-established theories in the stress literature. The literature can benefit from a deliberate attempt to conceptualize leadership ambivalence as a workplace stressor and understand the mechanism through which it impacts the individual.

Based on these takeaways, the current study will examine leadership ambivalence as a workplace stressor using a subjective measure. I now turn to the construct of LMX ambivalence, the specific focus of this dissertation.

CHAPTER FOUR: LEADER-MEMBER EXCHANGE AMBIVALENCE

Leader-member exchange (LMX) ambivalence (Lee et al., 2019), as the name suggests, stems from the popular leadership theory of leader-member exchange (or LMX; Graen & Uhl-Bien, 1995). LMX is a widely popular theory in the leadership literature, as demonstrated by the exponential growth in its literature (Premru et al., 2022). A key tenet of LMX is that leaders form differential relationships with their subordinates. The quality of LMX refers to the degree of mutual trust, respect, and obligation between a leader and their subordinates (Graen & Uhl-Bien, 1995). It is subject to variability since the time and resources available for the leader to invest in building relationships are limited and are usually not distributed equally among subordinates (Liden & Graen, 1980). The vast majority of the LMX literature has treated LMX quality as a univalent construct, varying from positive to negative. As such, LMX quality has mostly appeared in the ambivalence literature as a moderator to represent the positive orientation in contrast with a negative predictor (e.g., abusive supervision).

LMX quality is determined by a wide range of leader and member characteristics and behaviors as well as dyadic similarity and contextual factors (Bauer & Erdogan, 2015). Moreover, there are a multitude of favorable outcomes that have been associated with high quality LMX. In daily interactions, leaders and members who enjoy a high-quality exchange tend to communicate more frequently (Kacmar et al., 2003), have more substantive content in their communications (Fairhurst & Chandler, 1989), and engage in collaborative decisions (Scandura et al., 1986). Employees with high-quality LMX tend to benefit from greater access to information, resources, and even the leader's attention (Dansereau Jr et al., 1975; Klein & Kim,

1998). In conflict situations, LMX quality also plays a role. Leader-member dyads with high-quality exchange experience conflict less frequently relative to those with low-quality exchange (Paglis & Green, 2002). On the leader side, they tend to make internal attributions of high performance of members with whom they have high-quality exchange (Heneman et al., 1989). On the other side, followers tend to be more forgiving of the leader's mishaps when they have a high-quality LMX (Shapiro et al., 2011).

As a social exchange, LMX quality influences workplace behaviors (Erdogan et al., 2004). There is evidence in the literature of a link between LMX quality and job performance, albeit laden with issues. A meta-analysis by Gerstner and Day (1997) showed that the link is stronger when job performance is measured subjectively such as by supervisor ratings (a correlation of .28) compared to objective performance measures (a correlation of .10) (Gerstner & Day, 1997). A possible explanation of this difference has to do with the measures of job performance. Specifically, subjective measures of job performance could possibly be contaminated by the affect of the supervisor toward the employee while objective measures could be deficient depending on the nature of the job (Bauer & Erdogan, 2015). Additionally, the strength of the link between LMX quality and job performance also varies based on the nature of the task such that it is stronger when the task is very simple or very complex (Dunegan et al., 1992). Also, the link is stronger for introverted members (Bauer et al., 2006) and more positive for member with internal locus of control (Ozer, 2008), suggesting that individual characteristics of employees play a role in how much they benefit from the exchange with their leaders.

Aside from task performance, employees with high-quality LMX tend to define their jobs more broadly (Hsiung & Tsai, 2009), which means they tend to engage in more organizational citizenship behavior (OCB). In fact, a meta-analytic study found a .33 correlation between high-quality LMX and OCBs targeting the supervisor and a .27 correlation between high-quality LMX and OCBs targeting the organization in general (Ilies et al., 2007). The exact nature of the OCB varies depending on what is valued by the leader and the organization, but what the literature shows is a general tendency of high-quality LMX members to engage in prosocial behavior beyond the job requirements (Bauer & Erdogan, 2015). High-quality LMX is also negatively correlated with undesirable behaviors at the workplace such as deviance (El Akremi et al., 2010) and retaliation (Townsend et al., 2000). Members with high-quality LMX are simply less motivated to engage in counterproductive work behavior, which can possibly be due to the fact that they feel less threatened by negative actions by others or that they feel they stand to lose more if they are perceived as deviant by their supervisor (Bauer & Erdogan, 2015).

Given the popularity of LMX as a leadership theory and the growing evidence of ambivalence in the leadership literature, the absence of any consideration of ambivalence in the LMX literature is particularly salient. Recently, Lee, Thomas, Martin, and Guillaume (2019) addressed this gap by introducing the construct of LMX ambivalence. Defined as a follower's coexisting positive and negative thoughts and cognitions towards the relationship with their leader, LMX ambivalence was meant to counter the prevalence of a univalent view of the quality of the exchange between a leader and a follower that dominated prior literature with an alternative, bivalent perspective. In addition to its contribution to the LMX literature, the concept of LMX ambivalence also makes a novel contribution to the leadership ambivalence

literature. Most of the leadership ambivalence literature has utilized objective operationalizations. Because LMX ambivalence aims to capture the employee's direct experience of ambivalence rather than the experience of simultaneous positive and negative stimuli, it represents a subjective ambivalence operationalization. As noted previously, subjective ambivalence is believed to be more consequential in terms of the employee's psychological response (Priester & Petty, 2001).

At the time of writing this dissertation, there have been only four prior studies on LMX ambivalence. As noted above, Lee and colleagues (2019) initially proposed the concept of LMX ambivalence. They demonstrated a negative association between LMX ambivalence and supervisor-rated task performance. The relationship was moderated by perceived organizational support, such that it became statistically nonsignificant at high levels of POS. Because this study controlled for LMX quality, the observed relationship was attributable to LMX ambivalence above and beyond negative levels of LMX. LMX ambivalence was also significantly and positively related to negative affect which, in turn, mediated the relationship between LMX ambivalence and task performance. Moreover, the interaction between LMX ambivalence and coworker support was significantly related to negative affect such that the relationship between LMX ambivalence and negative affect became nonsignificant at high levels of coworker support. In sum, Lee et al. (2019) examined LMX ambivalence in relation to task performance and negative affect as distal and proximal outcomes, respectively, with organizational support and coworker support operating as cross-domain buffers of those relationships.

In another recent study of LMX ambivalence, Dechawatanapaisal (2020) found a negative relationship between LMX ambivalence and career commitment mediated by organizational embeddedness. In other words, employees who had high LMX ambivalence were less likely to be embedded in their organizations, which was subsequently associated with lower levels of career commitment. Additionally, the conditional indirect effect of LMX ambivalence on career commitment via organizational embeddedness was examined with job strain as a second stage moderator. The negative indirect effect was stronger for employees with higher job strain compared to those with lower job strain (Dechawatanapaisal, 2020).

Drawing on social information processing theory (Salancik & Pfeffer, 1978) and conservation of resources theory (Hobfoll, 1989), Chen and Weng (2023) examined the relationship between authoritarian-benevolent leadership and employees' proactive work behaviors and unethical pro-organizational behaviors using LMX ambivalence as a mediator. Their studies revealed that LMX ambivalence mediated the relationship between authoritarian-benevolent leadership and employees' proactive work behaviors and unethical pro-organizational behaviors such that authoritarian-benevolent leadership was positively related to LMX ambivalence, and LMX ambivalence was negatively related to employees' behavior. The studies also found that dialectical thinking (i.e., the ability to examine opposing perspectives to reach conclusions) negatively moderated the relationship between authoritarian-benevolent leadership on employee LMX ambivalence (Chen & Weng, 2023).

Finally, Lin and Du (2023) demonstrated that LMX ambivalence was directly negatively related to employee creativity and indirectly negatively related to it via self-efficacy. Furthermore, based on social cognitive theory (Bandura, 2001) which holds that individual

behaviors result from the interaction of cognitive, affective, motivational and environmental factors and are regulated by self-efficacy beliefs, the researchers demonstrated that the negative effect was attenuated by employee cynicism (Lin & Du, 2023).

To my knowledge, no prior studies examined LMX ambivalence from a stress perspective. Instead, the focus of existing research has been mainly on performance and career outcomes rather than the employee's well-being. Thus, the current study extends this past research by explicitly examining LMX ambivalence from an occupational health psychology perspective to better understand its implications for the well-being of employees.

CHAPTER FIVE: THE CURRENT STUDY

In this dissertation, I aim to expand our understanding of leadership ambivalence as a workplace demand that can act as a stressor and negatively impact an employee's well-being. The theoretical foundation of the study is the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2014), an overview of which is provided in the next section. Following that overview, I summarize evidence of ambivalence as a workplace demand and present the study hypotheses.

Job Demands-Resources Model

The job demands-resources (JD-R) model is a framework that suggests that an individual's well-being and performance at work are influenced by the demands of their job and the resources they have available to meet those demands (Bakker & Demerouti, 2014). According to the JD-R model, job demands are the physical, psychological, social, or organizational aspects of the job that require sustained physical or mental effort or that are associated with high levels of pressure or stress. Examples of job demands include workload, time pressure, role ambiguity, and interpersonal conflict (Demerouti et al., 2001). On the other hand, job resources are the physical, psychological, social, or organizational aspects of the job that facilitate the reduction of job demands and the attainment of positive outcomes, such as personal accomplishment and job satisfaction. Examples of job resources include job control, social support, opportunities for learning and development, and clear communication (Demerouti et al., 2001).

The JD-R model proposes that job demands and resources can interact and influence one another. For example, high levels of job demands may lead to burnout or other negative outcomes, but if an individual has sufficient job resources, they may be able to cope with the demands more effectively. Conversely, if an individual lacks sufficient job resources, they may be more vulnerable to negative outcomes even when faced with relatively low levels of job demands (Bakker & Demerouti, 2014; Demerouti et al., 2001). Overall, the JD-R model suggests that it is important for individuals to have adequate resources to address job demands in order to maintain well-being and perform effectively at work. It is also important for organizations to consider both job demands and resources when designing and managing work environments, as this can have a significant impact on employee well-being and performance.

Ambivalence as a Stressor and Workplace Demand

Both low quality LMX and LMX ambivalence have undesirable consequences. However, in this dissertation, I argue that the reasons for these undesirable consequences are distinct. To ultimately demonstrate that leadership ambivalence is in fact a job demand in line with the JD-R model, I will first distinguish leadership ambivalence from low quality leadership through the lens of LMX.

Low quality leader-member exchange (LMX) can have negative consequences for several reasons. One key factor is that when the quality of the relationship between leaders and their subordinates is poor, employees may feel that they have insufficient access to workplace resources and support, and therefore become less motivated, engaged, and committed to their work and the organization (Graen & Uhl-Bien, 1995). This can lead to reduced effort, lower job

satisfaction, and increased turnover intentions and actual turnover (Bauer & Erdogan, 2015). When LMX is low quality, it can have a negative impact on both the individual employee and the organization, leading to lower performance, reduced productivity, and ultimately, poorer outcomes (Bauer & Erdogan, 2015).

In contrast, ambivalence affects individuals in a different manner. Researchers have emphasized that cognitive inconsistency is at the core of ambivalence due to coexisting opposing evaluations (Eagly & Chaiken, 1993). Therefore, parallels can be drawn between ambivalence and other areas of research that investigate inconsistency, such as cognitive dissonance (Festinger, 1957) and balance theory (Heider, 1946). In those areas, studies have shown that people are motivated to reduce internal inconsistencies, and ambivalence has been assumed to act in a similar manner (McGregor et al., 1999). As individuals who have ambivalent attitudes try to reduce internal inconsistencies, they tend to engage in more effortful attempts to process information related to the subject of their attitudes compared to those who have univalent attitudes, and they do so more often (Jonas et al., 1997; Maio et al., 1996; van Harreveld et al., 2015). Research has shown various examples of cognitive effort in relation to ambivalence (van Harreveld et al., 2015). For example, ambivalence is associated with increased systematic processing of information, which involves sifting through information to identify and compare alternatives (Jonas et al., 1997). Ambivalence is also related to increased attention to stimuli that are related to the subject of attitudinal discrepancy, causing the individual to be on high alert for information that can help reduce the discrepancy (Monteith et al., 1993). From a physiological perspective, ambivalence has been linked to greater prefrontal cortex activity (Cunningham et al., 2003; Nohlen et al., 2014). This indicates that individuals

who experience ambivalence engage in more deliberate attempts to acquire and process information that can resolve the inconsistency in their attitudes. They exert more effort trying to utilize this information to reduce the ambivalence.

As applied to LMX ambivalence, an individual who has an ambivalent relationship with their leader must exert additional cognitive effort to resolve the perceived inconsistencies in their relationship and decide on how to approach future interactions with the leader in order to increase the probability of achieving their personal and work-related goals. This additional effort makes LMX ambivalence a unique source of additional demand at the workplace which can lead to strain. In fact, as described earlier in this dissertation, there is evidence in the literature that ambivalent relationships lead to strain above and beyond the effects of just negative relationships, characterized by physiological symptoms, such as blood pressure, heart rate reactivity, cardiovascular reactivity, and inflammation (Birmingham et al., 2015; Matta et al., 2017; Uchino et al., 1992, 2013), as well as psychological signs of strain include depression, emotional exhaustion, and anxiety (Hobman et al., 2009; Matta et al., 2017; Uchino et al., 2004). These indicators of strain have been demonstrated in personal relationships (e.g., Major et al., 1997; Uchino et al., 2001) and in workplace relationships (e.g., Matta et al., 2017; Hobman et al., 2009) as explained in earlier sections of this dissertation.

Emotional Exhaustion as an Indicator of Strain

Emotional exhaustion refers to feelings of being emotionally extended and depleted because of excessive demands or stress (Maslach & Jackson, 1986). According to Maslach and Leiter (Maslach & Leiter, 2008), emotional exhaustion is a dimension of burnout syndrome,

which occurs gradually and increases progressively in severity. Along with a sense of cynicism and disengagement, emotional exhaustion is a component of burnout which has negative consequences on an individual's well-being, performance, and behavior at work (Maslach & Jackson, 1986). Emotional exhaustion represents the initial phase in the development of burnout (Maslach et al., 1997). During this phase, employees are overwhelmed in terms of emotional resources (Maslach et al., 1997) and report consistent feelings of tiredness, and chronic fatigue (Milam et al., 2019). Emotional exhaustion has been specifically linked to the lack of balance between job demands and resources (Bakker & Demerouti, 2007; Lewig & Dollard, 2003). In this study, I will use emotional exhaustion as an indicator of strain.

A major goal of this dissertation is to demonstrate leadership ambivalence as a job demand as defined by the JD-R model. I hypothesize that ambivalence acts as a job demand which uniquely leads to strain in the form of emotional exhaustion. There is no existing research to explicitly demonstrate this claim using subjective leadership ambivalence. According to the JD-R model, dealing with chronic job demands exhausts employees' mental and physical resources and can lead to the depletion of energy and strain (Bakker & Demerouti, 2007). As an added job demand, managing an ambivalent relationship with a supervisor is expected to lead to symptoms of strain and to have unique effects beyond what would be the case with just low levels of LMX.

Hypothesis 1: LMX ambivalence will be positively related to emotional exhaustion after controlling for the effect of LMX quality.

The Mediating Role of Rumination

Rumination can be considered an indicator of cognitive effort in response to the experience of inconsistency in an ambivalent relationship when it is directed at the subject of ambivalence. Rumination, as defined by the Goal Progress Theory (Martin & Tesser, 1996), represents conscious thoughts that focus on a specific instrumental theme and continue to recur in the absence of any immediate external stimuli. These thoughts have been described as repetitive, prolonged, and recurrent (Watkins, 2008; Watkins & Roberts, 2020). Ruminative thoughts occur when an individual experiences discrepancy in progress toward a desired state (Cropley & Zijlstra, 2011; Martin & Tesser, 1996).

Ruminative thoughts involve repetitive activation of the stressor, which is a cognitive process that prolongs the stress response and delays recovery (Brosschot et al., 2006). This is evident in the association between rumination and various indicators of decreased well-being such as poor sleep quality (Querstret & Cropley, 2012), increased cortisol levels (McCullough et al., 2007), and fatigue (Querstret & Cropley, 2012). Rumination has also been linked to various symptoms of strains, including exhaustion (Kinnunen et al., 2019), depression (Smith & Alloy, 2009), and anxiety (Watkins & Roberts, 2020). Additionally, it plays a mediating role in the experience of emotional exhaustion as a result of stressful events such as customer mistreatment (Baranik et al., 2017) and experienced injustice (Soenen et al., 2019).

In this study, I will study rumination as an indicator of the cognitive effort resulting from leadership ambivalence. Given the dual nature of ambivalence (i.e., the coexistence of positive and negative attitudes), I expect rumination to occur at a higher degree in individuals

experiencing ambivalence, above and beyond those with poor quality relationship with their leaders. Individuals with ambivalent attitudes do not have the option of simply judging their relationship with their leader as a negative one and moving on. Their ambivalent attitudes contribute to a more pronounced stress response represented by increased rumination and, ultimately, decreased well-being in the form of emotional exhaustion.

In sum, it is theorized that leadership ambivalence with its inherent inconsistency acts as a job demand through increased cognitive effort (i.e., rumination) and predicts an individual's experience of strain in the form of emotional exhaustion. I hypothesize that there is a relationship between LMX ambivalence and emotional exhaustion mediated by rumination, such that an individual experiencing high levels of LMX ambivalence will engage in more rumination about the relationship and eventually experience higher levels of emotional exhaustion. Furthermore, these effects will occur above and beyond the effects of low quality LMX because of the unique effects of LMX ambivalence on effortful cognition. These arguments represent the core hypothesis of this study:

Hypothesis 2: LMX ambivalence will be positively related to emotional exhaustion as mediated by rumination about the leader-subordinate relationship after controlling for the effect of LMX quality.

The Moderating Effect of Personal Resources

Personal resources are the internal characteristics that individuals have at their disposal to help them cope with the demands of their job. These can include individual traits, skills, knowledge, expertise, and physical and mental abilities (Xanthopoulou et al., 2007). According

to JD-R, personal characteristics can act as resources and buffer the negative outcomes of job demands. In the case of LMX ambivalence as a demand, I predict that the personal characteristics that will be most relevant as resources will be those that impact the cognitive effort expended in response to conflicting attitudes. These resources may or may not actually resolve the root cause of ambivalence, but they regulate the cognitive effort and its consequences in terms of exhaustion, which falls within the scope of this study. In the following sections, I will propose two personal resources which are expected to buffer the individual's tendency to exert cognitive effort: tolerance for ambiguity and optimism.

Tolerance For Ambiguity

Tolerance for ambiguity is an individual difference factor that is characterized by an ability to cope with uncertainty or lack of clarity in a situation (Budner, 1962). It helps individuals effectively deal with situations that are open to interpretation or multiple possible outcomes. Research suggests that individuals who lack tolerance for ambiguity tend to demonstrate an inability to allow for the possibility of good and bad traits in the same person, and more readily accept black and white views of life (Frenkel-Brunswik, 1948; Furnham & Marks, 2013). With such tendencies, a person's tolerance for ambiguity affects their responses to situations in a variety of contexts, including the workplace.

When exposed to ambiguity, individuals with low tolerance recognize the ambiguous situation and perceive it as a threat to their ability to assess risk and make decisions. In response to the perceived threat, those individuals experience stress, avoidance, delay, suppression, or denial (Budner, 1962; Furnham & Marks, 2013; Furnham & Ribchester, 1995;

MacDonald, 1970; McLain, 1993). This response is similar to the discomfort induced by the experience of ambivalence.

The psychological discomfort induced by anxiety has been described as feeling tense before jumping off the fence (Van Harreveld, Rutjens, et al., 2009). In that sense, tolerance for ambiguity may play a role in determining how long an individual can remain on the fence before the tension of ambivalence intensifies enough to cause ruminative thoughts and, ultimately, emotional exhaustion. Therefore, I hypothesize that individuals with low tolerance for ambiguity will experience more discomfort when experiencing LMX ambivalence. This will be evident in their heightened engagement in cognitive effort by ruminating. This logic is supported by evidence that the cognitive effort used to process information in an ambivalent situation is related to the discomfort induced by ambivalence. As shown in a study of attitudes toward minorities, individuals experiencing ambivalence on a subject tend to be more critical in evaluating persuasive arguments and differentiating between weak and strong ones (Maio et al., 1996). In other words, individuals with low tolerance for ambiguity are more motivated to address ambiguous situations, which causes them to engage in cognitive effort while seeking a solution. In contrast, individuals who have a high tolerance for ambiguity tend to experience lower levels of stress in situations that are uncertain or not well-defined. Those individuals feel a lesser need to engage in cognitive effort to resolve the situation; they are comfortable with it remaining ambiguous.

In sum, I predict that tolerance for ambiguity will act as a personal resource and buffer the effect of LMX ambivalence on rumination and, ultimately, emotional exhaustion. I expect this buffering role to occur due to the individual's decreased motivation to address the

ambivalence in the relationship. Specifically, I argue that individuals with a sufficiently high tolerance for ambiguity will experience less discomfort with ambivalence and thus will expend less cognitive effort trying to resolve it. Their lack of motivation stems from their ability to be more accepting of the coexistence of good and bad evaluations of their relationship with their leader as well as their willingness to respond to fluctuating stimuli with appropriate solutions. In contrast, individuals with low tolerance for ambiguity will experience more discomfort and be more motivated to address the ambiguity resulting from ambivalence, and therefore will engage in more cognitive effort in the form of rumination.

Hypothesis 3a: Tolerance for ambiguity will moderate the relationship between LMX ambivalence and rumination such that high levels of tolerance for ambiguity will attenuate the positive relationship between the two variables.

Hypothesis 3b: The indirect relationship between LMX ambivalence and emotional exhaustion will be moderated by tolerance for ambiguity such that high levels of tolerance for ambiguity will attenuate the positive relationship between the two variables.

Optimism

Optimism can be defined as an attitude associated with a future expectation which is regarded by the evaluator (i.e., the individual) as desirable (Tiger, 1979). Dispositional optimism (Scheier & Carver, 1992) is a personality variable that people possess to varying degrees (Peterson, 2000). Individuals high in dispositional optimism have the expectation that good outcomes will be plentiful in the future while bad outcomes will be rare (Scheier & Carver, 1992). By that definition, dispositional optimism plays a role in self-regulation such that, when

facing difficulties, individuals consider whether they can still achieve the goals they have set or adopted. If they continue to believe that the goals are achievable despite the difficulties, they are optimistic and will continue their efforts toward achieving the goals. If they do not believe that the goals are achievable despite the difficulties, they are pessimistic and will more likely abandon their goal (Peterson, 2000). Furthermore, dispositional optimism has been associated with engaging in effective coping behaviors in the face of adversity (Scheier et al., 1986).

There is evidence in the literature to indicate that people are willing to take cognitive shortcuts to reduce the effort required to resolve the discomfort associated with ambivalent attitudes. For example, individuals who hold ambivalent attitudes are more likely to be persuaded by consensus information than those who do not have ambivalent attitudes (Hodson et al., 2001). Moreover, ambivalent attitude holders selectively focus on information that reduces ambivalence and avoid information that increases ambivalence (Clark et al., 2008). Studies have also shown that people who are attempting to reduce conflicting attitudes are less critical in evaluating the credibility of information before being persuaded by it (Zemboiran & Johar, 2007).

Based on this understanding of dispositional optimism, I hypothesize that a high degree of dispositional optimism will attenuate the positive relationship between LMX ambivalence and rumination, ultimately buffering the effect of LMX ambivalence on emotional exhaustion. I argue that this effect occurs because optimism will cause individuals to selectively focus on the positive side of the ambivalent relationship, thus tipping the balance to that side and reducing their urge to exert extensive cognitive effort (Van Harreveld, Van der Pligt, et al., 2009). Although this biased approach to information processing may not be ideal in actually resolving

the ambivalence, it can be effective in reducing the stress response associated with it. In contrast, individuals with low levels of dispositional optimism are more likely to process the information without bias toward the positive side (van Harreveld et al., 2015). This more balanced approach is more likely to lead to better problem solving, but it is also more cognitively effortful. Therefore, low levels of dispositional optimism will be associated with more rumination.

In sum, because LMX ambivalence involves simultaneous positive and negative evaluations, individuals with a sufficiently high degree of dispositional optimism will selectively focus on information that biases their cognitive processing of ambivalence to the positive side, and thus will reduce the cognitive effort required to resolve the ambivalence (i.e., rumination) resulting in less strain (i.e., exhaustion).

Hypothesis 4a: Dispositional optimism will moderate the relationship between LMX ambivalence and rumination such that high levels of dispositional optimism will attenuate the positive relationship between the two variables.

Hypothesis 4b: The indirect relationship between LMX ambivalence and emotional exhaustion will be moderated by dispositional optimism such that high levels of dispositional optimism will attenuate the positive relationship between the two variables.

To summarize the relationships being investigated in this study, Figure 1 presents the model that will be tested with LMX ambivalence having an indirect effect on emotional exhaustion through rumination, and two variables, tolerance for ambiguity and optimism, act as first stage moderators in the model.

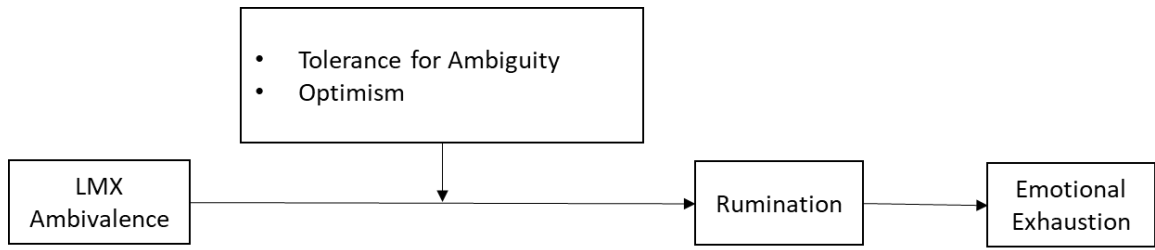


Figure 1. Study model

CHAPTER SIX: METHOD

Sample

Participants were recruited for this study through my professional network, including direct messaging and invitations on professional networking platforms (i.e., LinkedIn). Since the minimum number of required participants was acquired through my professional network, no other sources were used. Participants were required to be full-time employed professionals who worked in an organizational setting that included supervisory relationships. The first step in the recruitment process was to invite potential participants to complete an electronic enrollment form to confirm eligibility and obtain their e-mail addresses in order to receive an invitation to the study. Initially, I encountered an issue with fake responses to the enrollment form as I received hundreds of responses that were suspiciously similar within seconds of each other, suggesting they were electronically generated. I responded to this issue by adding robot detection solutions to the enrollment form. Specifically, I added a Recaptcha item and an open-ended question. In addition, I updated the study protocol submitted to the Internal Review Board to allow using participants' IP addresses to locate multiple submissions from the same computer. The e-mail addresses collected in the enrollment form were used to generate unique links to access the surveys. During the study duration, participants received frequent reminders by e-mail and text that contained the unique links to the study surveys.

After examining the responses to the enrollment form, 294 participants were invited to complete survey 1. Of those, 186 responded (63.3%) and were screened for response quality. Participants who scored less than 0.3 on the Recaptcha check, submitted incomplete responses,

or failed more than 2 of 3 attention checks were removed from the study. This led to 164 participants being invited to complete survey 2. Of those, 160 responded (97.6%). Upon examining the responses, five participants were removed from the study due to a change in supervisors, and one participant was removed due to an incomplete response. This led to 154 participants being invited to survey 3. Of those, 141 responded (91.6%). After accounting for incomplete responses, 135 remained (45.9%). Upon close examination of the 135 participants' responses to the 9 attention check items, I found that 78% (106) of the participants passed all checks, 14% (19) failed 1 check, 5% (7) failed 2 checks, 1.5% (2) failed 3 checks, and 0.7% (1) failed 5 checks. Failing 5 or more checks indicated consistently missing those checks across all surveys. The participant who failed 5 checks was removed from further analysis.

Thus, the final sample size for this study was 134 participants (45.6% of the original invited participant pool). Upon completion of the third survey, participants received their compensation in the form of gift cards to Amazon.com, the amount of which was determined based on the numbers of surveys they completed. The final sample size fell within the range that was estimated for this study (i.e., from 115 to 240 participants). The acceptable sample size was estimated before the beginning of data collection based on a Monte Carlo simulation in Mplus V.8 (Muthén & Muthén, 2002). The simulation was run twice: once with an assumption of a .20 correlation among the study variables as an estimate of effect size and again with an assumption of a .30 correlation. In both cases, the simulation ran 1000 repetitions and focused on the main relationships in the model without the moderators. The simulation demonstrated that a sample size range of 95 to 200 participants would provide a power of 0.8

or higher for each of the paths specified at .20 and .30 correlation, respectively, among the study variables. Appendix 1 shows the Mplus code and results of the Monte Carlo simulation.

The final sample consisted of 94.9% full-time and 5.1% part-time employed professionals. Almost thirty percent (29.7%) of the sample worked 40 hours a week, while 34.3% worked less than 40 hours and the remainder worked more than 40 hours. Of the sample, 16.5% were employed in entry-level positions or internships, 41.5% held analyst or associate titles, 12.5% were in first-level supervisory or management positions, 13.1% were in middle supervisory or management positions, and the remaining 11.4% held titles including senior manager, director, vice president, senior vice president, C-level executive, and others. The industries represented in the sample included business and professional services (27.0%), manufacturing (12.8%), education (10.7%), healthcare (6.6%), retail and wholesale trade (6.1%), transportation and warehousing (5.1%), among other industries. The sample consisted of 58.0% White or Caucasians, 22.7% Black or African American, 5.1% Hispanic or Latino, 3.4% Asian or Asian American, 0.6% Middle Eastern, 8.0% mixed race, 1.1% other, and 1.1% who preferred not to disclose their ethnicity. The average age of the sample participants was 35.2 years with the youngest participant being 20 years old and the oldest participant being 64 years old. Slightly over half of the sample were male (56.9%) while 42.0% were female and 1.1% reported “other” or declined to disclose their gender. Over half of the sample had a bachelor’s degree (52.8%) while 27.3% had a master’s degree. Participants with a high school diploma or associate’s degree accounted for 10.8% and those with a doctoral degree accounted for 7.4% of the sample. The remaining participants (1.7%) had other degrees or did not disclose their highest level of education completed.

Procedure

Participants were asked to respond to a series of three surveys. Numerous studies that used the JD-R model collected data on both demands/resources and outcomes simultaneously in a single questionnaire (Bakker et al., 2003, 2004). However, a time lag between surveys is generally considered more effective in capturing phenomena that develop over time. Therefore, the participants were surveyed longitudinally over three data collection waves with a time lag of two weeks between waves.

At the beginning of the first survey, the participants were given a brief explanation of the purpose of the study and were asked to provide their consent to participate. The participants' level of LMX ambivalence experience and their assessment of the moderator variables (i.e., optimism and tolerance for ambiguity) were measured in the first survey along with the control variables of LMX quality, demographic data, and the length of time participants have worked for their current supervisor. The second and third surveys include measures of rumination and emotional exhaustion, respectively.

Measures

In addition to demographic data, which included the potential control variables of age, gender, and the number of years reporting to the supervisor, the following measures were used in this study. These variables are based on the main study variables and three additional variables for supplementary analysis (i.e., neuroticism, locus of control, and subjective leader ambivalence). A complete list of all items in each measure is provided in Appendix 2.

LMX ambivalence. LMX ambivalence was measured with the 7-item LMX ambivalence scale developed by Lee et al. (2019). Cronbach's Alpha was .904. A sample item is "I have conflicting thoughts: sometimes I think that my working relationship with my manager is very good, while at other times I don't." The items were rated on a seven-point Likert scale (1 = *strongly disagree* and 7 = *strongly agree*). This measure was collected at time 1.

Rumination. Rumination was measured with a scale adapted from McCullough, Bono, and Root's Rumination Scale (McCullough et al., 2007). Cronbach's Alpha was .969. The measure contains a total of 8 items. A sample item for intrusive rumination is "Images of interactions with my supervisor kept coming back to me." The items were rated on a five-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). This measure was collected at time 2.

Emotional Exhaustion. The exhaustion subscale from the Oldenburg Burnout Inventory (Demerouti & Bakker, 2008) was used. Cronbach's Alpha was .835. The eight items of the exhaustion sub-scale refer to general feelings of emptiness, overtaxing from work, a strong need for rest, and a state of physical exhaustion. A sample item is "After my work, I regularly feel worn out and weary." The items were rated on a five-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). This measure was collected at time 3.

Optimism. Optimism was measured with the ten-item Life Orientation Test (Scheier et al., 1994). Cronbach's Alpha was .778. A sample item is "in uncertain times, I usually expect the best." The items were rated on a five-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). This measure was collected at time 1.

Tolerance for ambiguity. Tolerance for ambiguity was measured a 13-item scale (McLain, 2009). Cronbach's Alpha was .921. A sample item is "I don't tolerate ambiguous

situations well.” The items were rated on a five-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*). This measure was collected at time 1.

LMX quality. The main control variable of the study was measured with the 7-item LMX Quality scale (Graen & Uhl-Bien, 1995). Cronbach’s Alpha was .899. A sample item is “How well does your leader (follower) understand your job problems and needs?” and it is rated on a five-point Likert scale (1 = *Not at all* and 5 = *A great deal*). This measure was collected at time 1.

Attitude toward the color blue. One of the recommended methods to address the concern of common method variance is including a marker variable (Podsakoff et al., 2003). This study used the Attitude Toward the Color Blue (Miller & Simmering, 2023) for this purpose. The measure, which is intentionally irrelevant to the study variables, contained 7 items. An item example is “blue is a beautiful color.” The items are rated on a five-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). Cronbach’s Alpha for this scale was .932. This measure was collected at time 1.

Attention check. Each survey contained three attention check items to determine if the participants were reading the items and considering the response options carefully. The items asked the participant to choose a specific response option.

Neuroticism. Neuroticism was measured using Goldberg’s 10-item markers from the International Personality Item Pool (Goldberg, 1999). A sample item is “[I] Get stressed out easily.” Cronbach’s alpha was .873 for this measure.

Locus of control. Locus of control was measured using an 8-item measure of internality (Levenson, 1981). A sample item is “I can pretty much determine what will happen in my life.”

The responses were captured on a 7-point scale (1 = strongly disagree, 7 = strongly agree).

Cronbach's alpha was .775.

Subjective leader ambivalence. This alternative measure of leadership ambivalence was created based on Priester and Petty (1996). It was adapted to capture leadership ambivalence by asking participants to indicate the extent to which they felt conflicted, indecisive, or mixed about their relationship with their supervisor, which address the behavioral, cognitive, and affective components of attitude, respectively. Responses were recorded on a scale from 0 (not at all) to 10 (completely). Cronbach's alpha was .84.

Analysis

Descriptive Statistics

Descriptive statistics of the study variables were computed and examined. This includes measures of central tendency (i.e., mean, median, and mode), dispersion (i.e., standard deviation and variance), and distribution (i.e., skewness and kurtosis). The descriptive statistics are summarized in Table 1.

The descriptive statistics of the study variables indicated no concerns regarding the distribution of the data. While some positive and negative skewness and some negative kurtosis were found, the values are well within the acceptable range of normality (Hair et al., 2021; Miller & Simmering, 2023; West et al., 1995).

Table 1. Descriptive statistics

Variables	Mean	Median	Mode	Standard Deviation	Variance	Skewness	Kurtosis
LMX ambivalence	3.20	3.57	3.86	1.16	1.35	-0.49	-0.86
LMX quality	4.93	5.00	4.71	1.32	1.74	-0.39	-0.45
Optimism	3.76	3.80	4.00	0.79	0.62	-0.25	-0.57
Tolerance for ambiguity	2.99	3.00	3.00	0.83	0.69	-0.25	-0.57
Rumination	2.75	2.93	1.00	1.48	2.19	0.27	-1.19
Emotional exhaustion	2.96	3.00	3.00	0.79	0.63	-0.20	-0.24
Locus of control	5.20	5.25	5.00	0.92	0.84	-0.41	-0.03
Neuroticism	2.71	2.70	1.80	0.89	0.79	0.11	-1.07
Subjective leader ambivalence	2.79	3.00	3.00	1.09	1.19	-0.16	-0.94

Note: N = 132-134 due to missing data in some variables.

The correlations among the main study variables as well as all the other variables considered in the supplementary analysis and as control variables were computed and summarized in Table 2. Consistent with the hypothesized relationships, LMX ambivalence was positively correlated with rumination ($r = .64, p < .001$) and emotional exhaustion ($r = .24, p = .007$), and rumination was positively correlated with emotional exhaustion ($r = .34, p < .001$).

Table 2. Correlations among variables

	1	2	3	4	5	6	7	8	9	10	11	12
1 LMX ambivalence												
2 LMX quality	-.54*											
3 Optimism	.17	-.06										
4 Tolerance for ambiguity	-.26*	.08	.27*									
5 Rumination	.64*	-.30*	-.15	-.44*								
6 Emotional exhaustion	.24*	-.39*	-.29*	-.33*	.34*							
7 Subjective leader ambivalence	.72*	-.58*	-.03	-.34*	.66*	.32*						
8 Neuroticism	.41*	-.30*	-.21*	-.37*	.61*	.37*	.43*					
9 Internal locus of control	.26*	-.08	.43*	.09	.14	-.19*	.22*	.06				
10 Age	-.16	-.01	-.13	.17*	-.24*	-.10	-.16	-.26*	-.12			
11 Gender	-.30*	.10	-.06	-.13	-.25*	.03	-.11	-.17	-.13	.08		
12 Years reporting to supervisor	.15	.02	-.15	-.10	.24*	-.05	.26*	.03	.12	.11	-.12	
13 Attitude toward the color blue	-.001	-.06	.12	-.14	.17	.06	.02	.17	.05	-.18*	.02	-.32*

*Note: * indicates $p < .05$. N = 132-134 due to missing data in some variables.*

As explained in earlier sections of this dissertation, a marker variable was used to address the concern of common method variance. The correlations between the study variables and the marker variable, attitude toward the color blue (Miller & Simmering, 2023) were computed, as shown in Table 2. The correlations were not statistically significant, indicating no presence of common method variance (Podsakoff et al., 2003).

In addition to LMX quality, additional variables were evaluated for inclusion as control variables in this study based on logical or theoretical relevance. Those variables included age, gender, the number of years reporting to the supervisor, and neuroticism and they correlated with some study variables to varying degrees. These correlations are also summarized in Table 2. The analysis presented later in this chapter was performed with and without these variables. The variables had no impact on the pattern of results in the analysis. Therefore, the decision was made to report the results without the control variables to conserve power.

Hypothesis Testing

Hypothesis 1 proposed that LMX ambivalence would be positively related to emotional exhaustion after controlling for the effect of LMX quality. This hypothesis was tested in IBM SPSS version 29 using a multiple regression analysis with LMX Ambivalence as the independent variable and emotional exhaustion as the dependent variable while controlling for LMX quality. The regression analysis showed that, when controlling for LMX quality, the relationship between LMX ambivalence and emotional exhaustion was statistically nonsignificant ($B = .02$, $SE = .07$, $p = .738$). The negative relationship between LMX quality and emotional exhaustion

was statistically significant ($B = -.22$, $SE = .06$, $p < .001$). Table 3 summarizes the results of the regression analysis.

Table 3. Regression of emotional exhaustion on LMX ambivalence

	Estimate	SE	p
LMX ambivalence	.02	.07	.738
LMX quality	-.22	.06	<.001

Note: N = 133.

Hypothesis 2 proposed that LMX ambivalence would be positively related to emotional exhaustion as mediated by rumination about the leader-subordinate relationship after controlling for the effect of LMX quality. To test Hypothesis 2, Mplus statistical analysis software package was used to test a path model with LMX ambivalence predicting rumination and rumination predicting emotional exhaustion. The model also accounted for LMX quality as a control variable and included direct paths from LMX quality and LMX ambivalence to emotional exhaustion along with indirect paths through rumination. The statistical significance of the hypothesized direct and indirect relationships was examined using bootstrapping with 1000 draws. The results indicated statistically significant direct relationships between LMX ambivalence and rumination ($B = 0.86$, $p < .001$) and between rumination and emotional exhaustion ($B = 0.19$, $p < .001$). The direct relationship between LMX quality and rumination was not statistically significant ($B = 0.08$, $p = .432$). The hypothesized indirect relationship between LMX ambivalence and emotional exhaustion mediated by rumination was positive and

statistically significant ($B = 0.17, p < .001$), thus supporting Hypothesis 2 of this study. Table 4 summarizes the results of this analysis.

Table 4. The mediating effect of rumination

	Estimate	SE	<i>p</i>
Emotional exhaustion on			
Rumination	.192	.043	<.001
LMX ambivalence (LMXA)	-.140	.071	.043
LMX quality	-.232	.054	<.001
Rumination on			
LMX ambivalence	.856	.093	<.001
LMX quality	.075	.095	.432
Indirect effect			
LMX ambivalence to emotional exhaustion	.165	.040	<.001

Note: N = 133 due to missing data in some of the variables.

Hypotheses 3a and 4a addressed tolerance for ambiguity and optimism, respectively, as potential moderator variables of the relationship between LMX ambivalence as an independent variable and rumination as a dependent variable. Hypothesis 3a was tested through a multiple regression analysis where the interaction between LMX ambivalence and tolerance for ambiguity was calculated and used as a predictor. Prior to this analysis, the independent variable (LMX ambivalence) and the moderator (tolerance for ambiguity) were mean centered by deducting the mean from their values. This is a practice that is meant to allow for more meaningful interpretation of regression coefficients by representing the slope of one coefficient at the mean level of the other (Hayes, 2017). After mean-centering the two variables, the interaction term was computed by multiplying them. LMX quality was included as a control

variable. The results of the moderation analysis, summarized in Table 5, did not support Hypothesis 3a, as the interaction term was not statistically significant ($B = -.018$, $SE = .104$, $p = .866$).

Table 5. The moderating effect of tolerance for ambiguity

	Estimate	SE	<i>p</i>
Rumination on			
LMX ambivalence (LMXA)	.748	.105	<.001
LMX quality	.046	.091	.610
Tolerance for ambiguity (TA)	-.498	.146	.001
LMXA x TA	-.018	.104	.866

N = 133 due to missing data in some variables.

To prepare for testing Hypothesis 4a, the same procedures and analysis performed with tolerance for ambiguity for Hypothesis 3a were repeated with optimism including mean-centering of variables and calculation of the interaction term. Once again, LMX quality was included as a control variable. The results of the moderation analysis, summarized in Table 6, did not support Hypothesis 4a, as the interaction term was not statistically significant ($B = -.082$, $SE = .103$, $p = .427$).

Table 6. The moderating effect of optimism

	Estimate	SE	<i>p</i>
Rumination on			
LMX ambivalence (LMXA)	.917	.086	<.001
LMX quality	.072	.089	.422
Optimism (OP)	-.457	.130	<.001
LMXA x OP	-.082	.103	.427

Note: N = 133 due to missing data in some variables.

Because the interactions were not statistically significant, the relationship between LMX ambivalence and rumination was not probed at high and low levels of the moderators. Similarly, because Hypotheses 3a and 4a were not supported, there was no value in testing Hypotheses 3b and 4b which were related to the moderated mediation.

Supplementary Analysis

Although not specifically included in my proposal, additional analyses were performed to further examine other possible relationships related to the hypothesized model. First, I examined the hypothesized relationships using an alternative leadership ambivalence measure that was shorter than the Lee et al. (2019) measure, more generally captured leader relationship ambivalence (rather than specifically LMX ambivalence) and was based on an existing ambivalence measure. Thus, these analyses provide additional evidence for the validity of the findings and provide a possible alternative measure to be used in future research. This alternative measure was created based on Priester and Petty (1996) and was derived from the tri-partite nature of attitudes (Ostrom, 1969). This measure of subjective leader ambivalence showed a statistically significant correlation with LMX ambivalence ($r = .719, p < .001$)

The analysis of the study model using this alternative measure of leader relationship ambivalence produced similar results to Lee et al.'s (2019) measure of LMX ambivalence. Specifically, the regression analysis showed that, when controlling for LMX quality, the relationship between subjective ambivalence and emotional exhaustion was statistically nonsignificant ($B = .107, SE = .073, p = .143$). The negative relationship between LMX quality

and emotional exhaustion remained statistically significant ($B = -.182$, $SE = .059$, $p = .003$). Table 7 summarizes the results of the regression analysis.

Table 7. Regression of emotional exhaustion on subjective leader ambivalence

	Estimate	SE	p
Subjective leader ambivalence	.107	.073	.143
LMX quality	-.182	.059	.003

Note: N = 131 due to missing data in some variables.

Testing Hypothesis 2 using this alternative measure of leader relationship ambivalence led to similar results to what was obtained using LMX ambivalence. Specifically, the results indicated statistically significant direct relationships between rumination and emotional exhaustion ($B = .148$, $SE = .057$, $p < .001$) and between subjective ambivalence and rumination ($B = .948$, $SE = .111$, $p < .001$). The direct relationship between LMX quality and rumination was not statistically significant ($B = .083$, $SE = .090$, $p = .359$). The indirect relationship between subjective ambivalence and emotional exhaustion mediated by rumination was positive and statistically significant ($B = .140$, $SE = .049$, $p < .001$). These results were the same as those obtained with LMX ambivalence as a predictor, also supporting Hypothesis 2 of this study. Table 8 summarizes the results of this analysis.

Table 8. The mediating effect of rumination with subjective leader ambivalence

	Estimate	SE	p
Emotional exhaustion on			
Rumination	.148	.049	.003
Subjective leader ambivalence	-.033	.080	.682
LMX quality	-.194	.062	.002
Rumination on			
Subjective leader ambivalence	.948	.090	<.001
LMX quality	.083	.092	.366
Indirect effect			
Subjective leader ambivalence to emotional exhaustion	.140	.049	<.001

Note: N = 132 due to missing data in some of the variables.

Similarly, Hypotheses 3a and 4a were not supported when using the alternative measure of leader relationship ambivalence instead of Lee et al.'s (2019) LMX ambivalence. The results of the moderation analyses are summarized in Table 9 and Table 10.

Table 9. The moderating effect of tolerance for ambiguity for subjective leader ambivalence

	Estimate	SE	p
Rumination on			
Subjective leader ambivalence (SLA)	.433	.355	.225
LMX quality	.032	.088	.716
Tolerance for ambiguity (TA)	.007	.383	.985
SLA x TA	.127	.115	.269

Note: N = 132 due to missing data in some variables.

Table 10. The moderating effect of optimism for subjective leader ambivalence

	Estimate	SE	<i>p</i>
Rumination on			
Subjective leader ambivalence (SLA)	.957	.432	.028
LMX quality	.062	.091	.492
Optimism (OP)	-.203	.351	.564
SLA x OP	-.008	.113	.945

Note: N = 132 due to missing data in some variables.

The second set of supplemental analyses addressed additional possible moderators of the relationship between LMX ambivalence and rumination. Because optimism and tolerance for ambiguity were not supported as moderators, in this set of supplemental analyses I assessed neuroticism and locus of control as additional possible moderators.

It was expected that neuroticism would strengthen the relationship between LMX ambivalence and rumination as it reduces the individual's ability to cope with the demand of managing an ambivalent relationship with their supervisor. The moderation analyses mirrored the approach used for the primary analyses. As shown in Table 11, the results did not support neuroticism ($B = .028$, $SE = .125$, $p = .826$) as a moderator.

Table 11. Testing neuroticism as a moderator

	Estimate	SE	<i>p</i>
Rumination on			
LMX ambivalence (LMXA)	.673	.113	<.001
LMX quality	.129	.084	.127
Neuroticism (NE)	.703	.142	<.001
LMXA x NE	.028	.125	.826

Note: N = 133 due to missing data in some variables.

Another individual trait that can be considered a resource in helping individuals cope with situations is locus of control. Locus of control can be understood as an individual's orientation toward interpreting cause-and-effect relationships of events which can be internal or external (Ito & Brotheridge, 2007). Compared to individuals with an external locus of control, those with an internal locus of control tend to believe that external environmental events have less impact and that they have the power to cope with, respond to, and affect the outcomes of those events (Ashford et al., 1989; Latack et al., 1995). Therefore, I expected that internal locus of control could act as a buffer in the relationship between LMX ambivalence and rumination.

The original study model was tested with internal locus of control as a moderator while controlling for LMX quality. Once again, the moderation analyses mirrored the approach used for the primary analyses. The result of the analysis indicated that internal locus of control was a statistically significant moderator of the relationship between LMX ambivalence and rumination. Table 12 summarizes the findings. The results also indicated a statistically significant index of moderated mediation of $-.062$ ($CI = -.115, -.021$).

Table 12. The moderating effect of internal locus of control

	Estimate	SE	p
Rumination on			
LMX ambivalence (LMXA)	.812	.109	<.001
LMX quality	.031	.095	.746
Internal locus of control (LC)	.045	.130	.731
LMXA x LC	-.323	.120	.007

Note: N = 133 due to missing data in some variables.

The conditional effect of LMX ambivalence on rumination was examined at high and low levels of internal locus of control, represented by plus and minus one standard deviation from the mean, respectively. Figure 2 provides a visual representation of the conditional effect simple slopes analysis. As shown in the figure, the relationship between LMX ambivalence and rumination became stronger as levels of internal locus of control decreased.

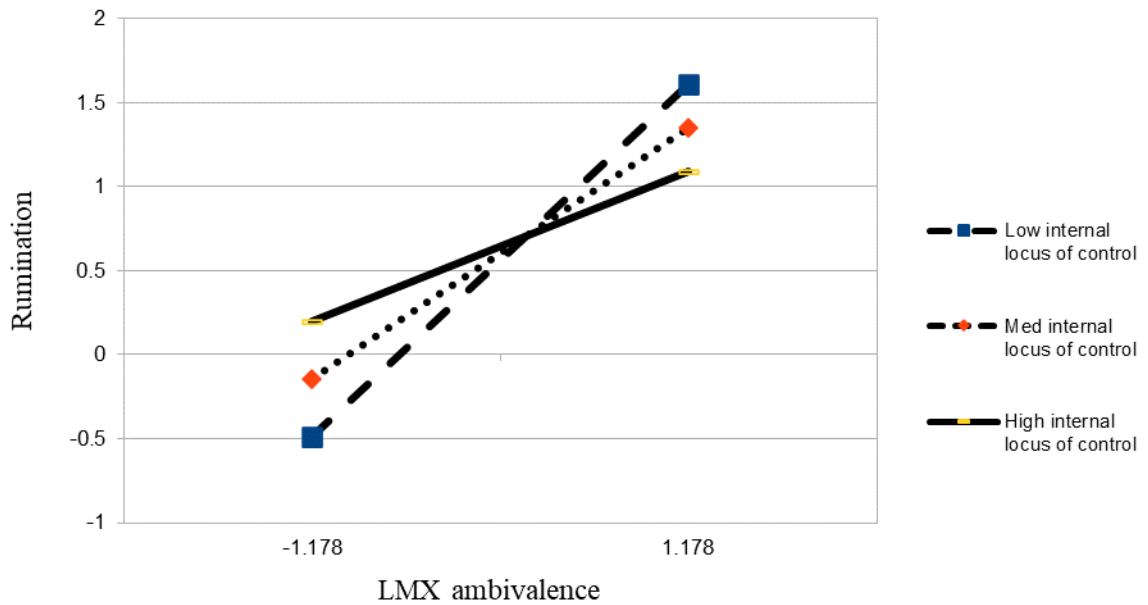


Figure 2. Simple slopes of locus of control as a moderator

CHAPTER SEVEN: DISCUSSION

Results And Theoretical Implications

The main contribution of this study was to draw on JD-R theory to validate LMX ambivalence as a workplace demand beyond the effect of poor LMX quality. Based on past theory and research on the increased cognitive demands that result from ambivalence, it was anticipated that higher levels of LMX ambivalence would lead to higher levels of rumination about the relationship with the leader, which would then be associated with higher levels of emotional exhaustion. The results supported the presence of an indirect relationship between LMX ambivalence and emotional exhaustion mediated by rumination, even after controlling for LMX quality. In fact, LMX quality was not related to rumination, which supports the assertion that leadership ambivalence can be considered a unique workplace stressor.

It is noteworthy that the first study hypothesis was not supported, which indicated that poor LMX quality was a stronger *direct* predictor of emotional exhaustion compared to LMX ambivalence. This finding indicates that low LMX quality is indeed a workplace stressor that has important implications for employees' well-being. However, the results for the second hypothesis indicated that when individuals ruminated about their relationship with their supervisor, the resulting emotional exhaustion was above and beyond that which is caused by poor LMX quality. This indirect effect remained significant even when a variety of control variables were accounted for, including age, gender, years reporting to the supervisor, as well as the personal trait of neuroticism. Thus, LMX ambivalence has implications that can be explained as strain in response to a stressor. This finding paves the way for future research to

examine other implications of leadership ambivalence as a stressor. For example, leadership ambivalence can be studied with other outcome variables that commonly result from exposure to workplace stress such as job satisfaction and turnover intentions. The mechanism by which the effect may take place can also be expanded on to include affective responses such as anxiety and frustration.

LMX quality was not significantly related to rumination, nor did it have an indirect relationship with emotional exhaustion through rumination. Thus, LMX quality and LMX ambivalence both seem to have implications for employee well-being but through different mechanisms. It is noteworthy that LMX quality and LMX ambivalence were only correlated at -.54 in this study, further supporting their distinctiveness. When a quadratic term based on LMX quality was tested as a predictor of LMX ambivalence, evidence of a curvilinear relationship was found ($B = -.194, p < .001$). See Figure 3 for a graphic representation of the relationship between LMX quality and LMX ambivalence.

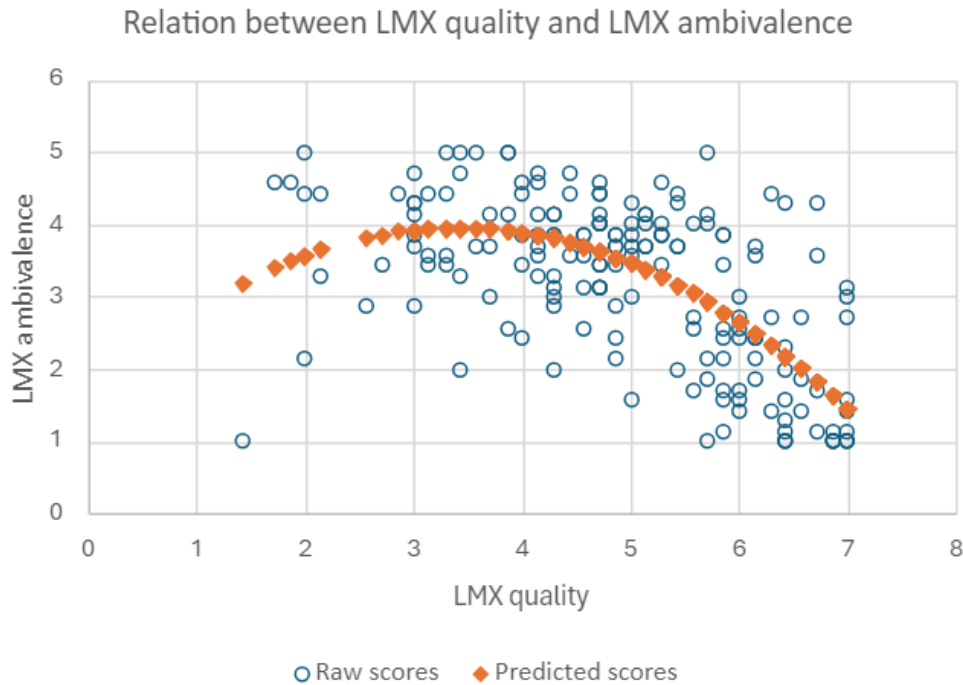


Figure 3. Relation between LMX quality and LMX ambivalence

One interpretation of this curvilinear relationship is that medium scores of LMX quality are in fact a mixed bag of truly medium levels of LMX quality as well as LMX ambivalence. Specifically, measures of subordinates LMX quality assume that they have a clear and stable evaluation of the extent to which their relationship with their leader is positive or negative. In reality, this may not be the case. In other words, it is possible that the average score of LMX quality measure items does not differentiate between individuals who provide a combination of strong high and low responses to LMX quality measure items (and thus, who are likely higher in ambivalence) and those who report medium LMX quality across all items. An additional interpretation of this relationship is that LMX ambivalence levels are generally above the midpoint across levels of LMX quality except at the very highest levels (i.e., greater than

approximately 5.5). In addition, even at high LMX quality, there were a number of participants who still reported high LMX ambivalence. Thus, even though LMX ambivalence levels were highest towards the middle of the range of LMX quality, the graph also shows that LMX ambivalence can occur across the spectrum of LMX quality. Future research should build on these findings to continue to clarify the unique role of each of these variables for employees as well as the relationship between the two variables.

Furthermore, investigating the relationship between LMX ambivalence and LMX quality may reveal a better understanding of how the two phenomena evolve over time. LMX relationships are believed to develop quickly, generally increase in quality over time (Liden et al., 1993), and then become stable (Graen & Scandura, 1987). Examining these notions in light of LMX ambivalence raises questions. For instance, early interactions may sway the subordinate's attitude toward either a positive or negative evaluation, depending on the nature of those interactions. For those relationships that start at a lower quality to increase over time, they would have to go through periods of ambivalence as the quality shifts to being more positive. Furthermore, this improvement over time does not account for relationships that do not last due to deterioration in quality or, possibly, long-lasting ambivalence. Saying that relationship quality increases over time can be reframed to say that relationships that increase in quality tend to stand the test of time. Therefore, relationships that fail to improve due to ambivalence may be less likely to last. The other primary goal of this research was to identify individual characteristics that could act as personal resources and thus, in line with the JD-R model, buffer the negative relationship of LMX ambivalence with rumination. Individuals low in tolerance for ambiguity were expected to ruminate less when LMX ambivalence was high

because they would have a higher threshold for responding to ambivalence, and individuals high in optimism were also expected to cope better with LMX ambivalence because they would engage in cognitive shortcuts to reach more positive interpretations of ambivalent experiences. However, neither of these variables had a significant interaction with LMX ambivalence in predicting rumination. Despite the statistical non-significance of tolerance for ambiguity as a moderator, its correlation with LMX ambivalence suggested that it does play a role in the experience of ambivalence. Future research may investigate how tolerance for ambiguity impacts LMX ambivalence, including possibly as an antecedent. Low tolerance for ambiguity may cause individuals to be more sensitive to mixed interactions with their supervisor and, therefore, to be more susceptible to experiencing leader ambivalence. With regard to optimism, it could be that the role of optimism is more complex than was anticipated. Some studies in the health literature point to undesirable outcomes of excessive optimism. Specifically, optimism may lead to a lack of perception of negative situations and underestimating risks. For example, optimism has been linked to risky driving behaviors (Harre & Sibley, 2007) and minimizing the negative health consequences of smoking (Williams & Clarke, 1997). Therefore, it is possible that excessive optimism ultimately leads to even worse consequences because it leaves individuals in situations for which they are unprepared. Future research should expand on this possibility by addressing how individuals at different levels of optimism cope with negative behavior from their leaders.

In supplemental analyses to consider other personal traits that may be a helpful resource in coping with ambivalence, two other variables were considered as moderators: neuroticism and internal locus of control. Neuroticism did not have a significant interaction

with LMX ambivalence. Therefore, the results suggest that emotional stability (i.e., low levels of neuroticism) does not act as a resource when facing leader ambivalence. When locus of control was considered as a moderator, it was found to significantly interact with LMX ambivalence such that the relationship between LMX ambivalence and rumination was stronger at lower levels of internal locus of control. In other words, individuals who believe that their outcomes are primarily driven by their own actions rather than external events engaged in less rumination about their relationship with their leader when LMX ambivalence was high. Interestingly, when LMX ambivalence levels were low, individuals higher in internal locus of control actually ruminated more than individuals lower on this trait. More research is needed to further understand the way in which locus of control affects the strength of the relationship between LMX ambivalence and rumination at different levels of ambivalence. Future research should also examine other potential moderators. Those could be other personal resources, such as interpersonal or social skills, or organizational resources, such as organizational support and coworker support.

An additional supplementary analysis involved using an alternative, three-item measure of leader ambivalence that was based on a general measure of subjective ambivalence from Priester and Petty (1996). Including this measure allowed for an examination of the findings using a more general measure of leadership relationship ambivalence, versus one focused on LMX, contributing to the validation of the LMX ambivalence construct, in addition to offering a shorter, more concise measure that could be used in future research. The correlation between Lee et al.'s (2019) LMX ambivalence and the measure based on Priester and Petty's (1996) well-established measure of subjective ambivalence was high at .72. In addition, the results obtained

from both measures showed the same general pattern, supporting the validity of findings. Future research should continue to pursue validation efforts of the leadership ambivalence construct and its measures. Such research could expand on the outcomes studied to include variables such as perceived justice and contextual work behaviors. These subjective measures could also be compared to results with objective ambivalence measures to better understand how these approaches differ and where they align.

Other non-hypothesized findings point to additional opportunities for future research, particularly with regard to antecedents of LMX ambivalence. As already noted, tolerance for ambiguity was significantly correlated with LMX ambivalence despite not moderating its relationship with rumination. In addition, the correlations for the current study revealed that men reported higher LMX ambivalence than women. Future research should consider what factors impact the nature of leaders' relationships with male subordinates and/or men's perceptions of those relationships, and the extent to which the gender of the leader impacts those findings. Finally, even though neuroticism was not a significant moderator of the relationship between LMX ambivalence and rumination, it did have a significant correlation with LMX ambivalence. Individuals high in neuroticism tend to have out-of-proportion responses to stimuli, especially negative ones (McCrae & Costa, 2003) and may therefore be likely to accrue negative attitudes towards their leader more easily, even in a mostly positive relationship. This would ultimately cause them to be more likely to experience ambivalence.

Limitations And Future Research

One limitation of the current study may be the time gap between measurement points. The choice of a two-week gap between data collection points was based on prior studies of similar relationships. However, examining these relationships at different time horizons may reveal more information. For example, day-level changes in attitudes toward the relationship with one's supervisor can reveal how quickly ambivalence changes over time and identify the thresholds at which individuals become aware of it or affected by it. It may also capture the extent to which ambivalence is stable or variable once it is experienced. At the same time, research with longer time horizons could be useful for capturing possible long-term effect of leadership ambivalence on lasting attitudes toward leaders in general. Specifically, there may be attitudes that carry over across different leaders as individuals change jobs and report to new leaders. Future research may also target the timing of specific workplace events, such as starting a new job or experiencing downsizing. It is possible that those events can shed more light on the triggers of leadership ambivalence.

Future research may use other data collection methods to further examine these and other research questions. For example, daily diaries may allow researchers to track the day-level changes in individuals' perceptions of their interactions with their leaders. Understanding those daily interactions may pin-point behaviors that leaders engage in that cause ambivalence. The range of time covered by a daily diary study may also be useful in studying any spillover effects. Specifically, because rumination was identified as a mechanism by which leader ambivalence leads to emotional exhaustion, future research using daily diary methods may

capture the possibility of leader ambivalence affecting the employee's life outside of the workplace due to intrusive ruminative thoughts.

Qualitative research can provide more opportunities to understand the range of leader behaviors that cause employees to experience conflicting attitudes, thoughts, and feelings, possibly using open-ended questions. This may be particularly useful in uncovering possible patterns of leader behaviors that employees consider when rating leader ambivalence. In other words, it would be helpful to better understand the behaviors that employees tend to consider jointly to demonstrate conflict. Qualitative research could also uncover strategies that employees use to cope with an ambivalent relationship with their leader to clarify what resources and supports employees might need when faced with these challenges.

Another limitation of this study is the nature of the sample. Using a convenience sample of my professional network may have skewed the nature of occupations held by participants to white collar jobs. The job characteristics as well as socioeconomic factors may play a role in the extent to which interactions with leaders matter in determining the well-being of the employees. For instance, it is possible that individuals with lower education levels or those in more precarious employment arrangement are more sensitive to leadership ambivalence and may respond to it with more intensity. Such individuals may also be less comfortable taking steps to resolve the ambivalence with their leader relative to samples where the power differential between leaders and their employees may be smaller (i.e., in white-collar jobs). Future research can extend the research questions of the current study to other professions. However, it is important to note that the current study's findings in a white-collar sample where it was potentially less likely to find such effects speaks to the strength of those effects.

Another limitation of the study is the sample size. While no statistical significance was found for the interaction effect of various moderators, this may be the result of the sample size. A larger sample may have provided more statistical power for capturing the interaction effect of the moderators tested in this study.

It is noteworthy that the current study solely examined the follower's perspective of the leader-follower relationship. Future research may examine the leader's side as well to reveal more about the interaction between leaders and followers. Methods that assess the congruence between leaders' and followers' perceptions can demonstrate particular events as well as job and personal characteristics and behaviors that are associated with ambivalence. Studying the leader's side may also reveal the extent to which leaders are aware of the impact of their interactions on the followers' perception of ambivalence as well as whether leaders intentionally engage in ambivalent behaviors to maintain control over work situations. For instance, in situations that may impact an employee's job activities, a leader may choose to share information that will enhance job performance while intentionally withholding information that may hinder it. While this selective information sharing behavior may be justified or inevitable, an employee who becomes aware of it may see this inconsistency as mixed signals regarding the level of support or transparency provided by the leader. Understanding whether leaders intentionally engage in ambivalent behaviors could guide future research in identifying interventions to mitigate the occurrence and consequences of leadership ambivalence.

Practical Implications

There are several practical implications to this research. These results demonstrate that LMX ambivalence acts as a workplace demand in line with the job demands-resource model. One common resource for workplace demands is supervisor support (Demerouti & Bakker, 2011). However, the ambivalence literature shows that support from the same individual who is also a source of stress may amplify the harmful effects on the worker's well-being. Therefore, support from a supervisor with whom the employee has an ambivalent relationship may not act as a resource and may, instead, exacerbate the resulting strain. A practical implication of this finding is that it calls for careful consideration of the resources and support offered to workers who are experiencing ambivalent interactions with their leaders. It is likely the case that the support will be more effective if it is offered by a source other than the leader.

Another practical implication of establishing leader ambivalence as a unique workplace stressor would be to avoid it in the first place. Leaders should pay close attention to inconsistencies in their interactions with their employees. Essentially, variability in the leader's provision of resources causes strain that is unique from that experienced by employees when resources are consistently withheld. Naturally, it would be unrealistic to expect leaders to consistently withhold resources if they are unable to consistently provide them. Some variability is inevitable. However, leaders should be aware of such variability and should find ways to offset its negative impact. Different interventions may be considered to examine types of resources that are considered acceptable alternates for employees in terms of offsetting the impact of this variability. For example, if a leader is unable to give an employee access to a

certain resource, e.g., additional team members for a project, an intervention may be the immediate explanation of the reason such resources are not available. In that sense, the nature and timing of behaviors that lead to negative and positive attitudes from the employee's perspective may be important factors in determining when and how ambivalence results from variability in the interactions with the leader.

Conclusion

In conclusion, the current study contributes to the occupational stress literature by demonstrating that leader ambivalence is a unique job demand that has a harmful impact on employees' well-being in the form of emotional exhaustion as a result of increased levels of cognitive effort (i.e., rumination) on the part of subordinates to resolve the ambiguity in the relationship. Several potential moderators were examined as possible personal resources to buffer the negative impact of LMX ambivalence, but the only significant finding was for internal locus of control in supplementary analyses. Future research should expand on these findings through exploring other potential outcomes of ambivalence as a stressor. A variety of outcomes may be considered, including ones that are related to the employee's well-being, such as mental and physical health, as well as those that related to on-the-job behaviors and consequences. A spillover effect may also be considered as employees ruminate about ambivalent interactions with their leader outside of the workplace. Additionally, future research may consider other potential resources that may buffer the negative effect of leader ambivalence on well-being. These may include other personal traits as well as job

characteristics. Furthermore, little is currently known about the antecedents of leader ambivalence. Characteristics of the leader, the follower, or the job may be examined.

The implications of the findings for practice call for more attention to the source of support when it is provided as a job resource to buffer the impact of leader ambivalence. Based on ambivalence literature, support from sources other than the leader would be more effective. Addressing leader ambivalence as a unique job demand also suggests that it would be preferable to avoid ambivalence altogether, which calls for future research on appropriate interventions to prevent it.

APPENDIX A: MONTE CARLO SIMULATION FOR STATISTICAL POWER

The following Mplus syntax and results for Monte Carlo simulation uses y, m, and x to represent the study variables of emotional exhaustion, rumination, and LMX ambivalence, respectively. Multiple iterations of the analysis were performed based on two assumptions. The first set of iterations was based on an assumption of .20 correlation among the study variables, and that was run for 190, 195, 200, and 205 participants. Sufficient power was found at 200 participants. The second set of iterations was run based on an assumption of .30 correlation among the study variables, and that was run for 90, 95, and 100 participants. Sufficient power was found at 95 participants. Tables 1 and 2 summarize the results of the analysis.

MONTECARLO:

NAMES = y x m;

NOBSERVATIONS = 200; *this was manipulated over several iterations to reach the desired power of 0.8 or higher for all main paths of the model

NREPS = 1000; *this is the number of repetitions

SEED = 53487; *a starting point for the model to run – optional but increases consistency when set if the model was to be re-run

MODEL POPULATION:

[x@0]; *set the mean of variable to 0

x@1; *sets the standard deviation to 1

[m@0];

m@1;

[y@0];

y @1;

y ON x*.2 m*.2;

*defines path and sets assumed

correlations

m ON x*.2;

y*.8 m*.8;

*defines expected average residual

variance

MODEL: *sample model is expected to match population model

y ON x*.2 m*.2;

m ON x*.2;

y*.8 m*.8;

MODEL INDIRECT:

*defines indirect paths

y IND x;

OUTPUT: TECH9;

*allows error messages related to convergence, used with Monte Carlo analysis

The following tables summarize the estimated statistical power based on Monte Carlo simulation for path analysis. Table 13 shows the estimated statistical power at a sample size of 200 participants and correlation of .20 among the study variables, while Table 14 shows the estimated statistical power at a sample size of 95 participants and correlation of .30 among the study variables.

Table 13. Estimated statistical power at N = 200 participants and correlation of .20.

Path	Estimated Power (should be .8 or higher)
Y on X	0.858
Y on M	0.812
M on X	0.863

Table 14. Estimated statistical power at N = 95 participants and correlation of .30.

Path	Estimated Power (should be .8 or higher)
Y on X	0.895
Y on M	0.821
M on X	0.921

APPENDIX B: MEASURE ITEMS OF THE MAIN STUDY VARIABLES

LMX Ambivalence

- 1 I have conflicting thoughts: sometimes I think that my working relationship with my manager is very good, while at other times I don't.
- 2 I have conflicting thoughts: sometimes I think my manager understands my problems and needs, while at other times I don't.
- 3 I have conflicting thoughts: sometimes I think my manager would use his/her power to help to solve problems in my work, while at other times I don't.
- 4 I have conflicting thoughts: sometimes I think I know where I stand with my manager, while at other times I don't.
- 5 I have conflicting thoughts: sometimes I think that my manager would "bail me out" at his/her expense, while at other times I don't.
- 6 I have conflicting thoughts: sometimes I think my manager recognizes my potential, while at other times I don't.
- 7 I have conflicting thoughts: sometimes I think that I would defend and justify my manager's decisions if he/she were not present to do so, while at other times I don't.

Rumination

- 1 I could not stop thinking about how my supervisor treated me.
- 2 Thoughts and feelings about how my supervisor treated me kept running through my head.
- 3 Strong feelings about how my supervisor treated me kept bubbling up.
- 4 Images of interactions with my supervisor kept coming back to me.
- 5 I brooded about how my supervisor treated me.
- 6 I found it difficult not to think about how my supervisor treated me.
- 7 I found myself playing my interactions with my supervisor over and over in my mind.
- 8 Even when I was engaged in other tasks, I thought about how my supervisor treated me.

Oldenburg Burnout Inventory

Exhaustion subscale

- 1 There are days when I feel tired before I arrive at work
- 2 After work, I tend to need more time than in the past in order to relax and feel better
- 3 I can tolerate the pressure of my work very well
- 4 During my work, I often feel emotionally drained
- 5 After working, I have enough energy for my leisure activities
- 6 After my work, I usually feel worn out and weary
- 7 Usually, I can manage the amount of my work well
- 8 When I work, I usually feel energized

Optimism

- 1 In uncertain times, I usually expect the best
- 2 It's easy for me to relax. (Filler item)
- 3 If something can go wrong for me, it will (Reverse-coded item)
- 4 I'm always optimistic about my future.
- 5 I enjoy my friends a lot. (Filler item)
- 6 It's important for me to keep busy. (Filler item)
- 7 I hardly ever expect things to go my way. (Reverse-coded item)
- 8 I don't get upset too easily. (Filler item)
- 9 I rarely count on good things happening to me. (Reverse-coded item)
- 10 Overall, I expect more good things to happen to me than bad.

Tolerance For Ambiguity

- 1 I don't tolerate ambiguous situations well.
- 2 I would rather avoid solving a problem that must be viewed from several different perspectives.
- 3 I try to avoid situations that are ambiguous.
- 4 I prefer familiar situations to new ones.
- 5 Problems that cannot be considered from just one point of view are a little threatening.
- 6 I avoid situations that are too complicated for me to easily understand.
- 7 I am tolerant of ambiguous situations. (R)
- 8 I enjoy tackling problems that are complex enough to be ambiguous. (R)
- 9 I try to avoid problems that don't seem to have only one "best" solution.
- 10 I generally prefer novelty over familiarity. (R)
- 11 I dislike ambiguous situations.
- 12 I find it hard to make a choice when the outcome is uncertain.
- 13 I prefer a situation in which there is some ambiguity. (R)

LMX Quality

- 1 Do you know where you stand with your leader and do you usually know how satisfied your leader is with what you do?
- 2 How well does your leader understand your job problems and needs?
- 3 How well does your leader recognize your potential?
- 4 Regardless of how much formal authority your leader has built into his or her position, what are the chances that your leader would use his or her power to help you solve problems in your work?
- 5 Again, regardless of the amount of formal authority your leader has, what are the chances that he or she would “bail you out” at his or her expense?
- 6 I have enough confidence in my leader that I would defend and justify his or her decision if he or she were not present to do so.
- 7 How would you characterize your working relationship with your leader?

Attitude Toward The Color Blue

- 1 Blue is a beautiful color.
- 2 Blue is a lovely color.
- 3 Blue is a pleasant color.
- 4 The color blue is wonderful.
- 5 Blue is a nice color.
- 6 I think blue is a pretty color.
- 7 I like the color blue.

Neuroticism

- 1 Am relaxed most of the time. R
- 2 Seldom feel blue. R
- 3 Get stressed out easily.
- 4 Worry about things.
- 5 Am easily disturbed.
- 6 Get upset easily.
- 7 Change my mood a lot.
- 8 Have frequent mood swings.
- 9 Get irritated easily.
- 10 Often feel blue.

Locus Of Control

- 1 Whether or not I get to be a leader depends mostly on my ability.
- 2 Whether or not I get injured depends mostly on how careful I am.
- 3 When I make plans, I am almost certain to make them work.
- 4 How many friends I have depends on how nice a person I am.
- 5 I can pretty much determine what will happen in my life.
- 6 I am usually able to protect my personal interests.
- 7 When I get what I want, it's usually because I worked hard for it.
- 8 My life is determined by my own actions.

Subjective Leader Ambivalence

Think about your relationship with your supervisor. To what extent do you feel conflicted, indecisive, or mixed in your reactions to your relationship with your supervisor?

- 1 Conflicted
- 2 Indecisive
- 3 Mixed reactions

APPENDIX C: FINAL MPLUS SYNTAX FOR MAIN ANALYSIS

The following Mplus syntax was used to test Hypotheses 2, 3a, 3b, 4a, and 4b. It used path analysis to examine the indirect effect of LMX ambivalence (t1LMXA) on emotional exhaustion (t3EE) as mediated through rumination (t2RUM) while controlling for LMX quality (t1LMXQ). Since the marker variable attitude toward the color blue (t1BLU) was not significantly correlated to variables other than optimism (t1OP), it was only included in the analysis of hypotheses 3a and 3b and was not included in hypotheses 4a and 4b that are concerned with tolerance for ambiguity (t1TA).

TITLE: Path Analysis;

DATA: file is DataSet.csv;

VARIABLE:

!following are the variables in the data file

Names are ID t1LC t1LMXA t1LMXQ

t1NE t1OP t1PPSA t1TA t2RUM t3EE

Gender age YrswSup t1BLU;

Missing are all (-9999);

!the following lists the variables to be used in the model. For each hypothesis, only the relevant variables should be active. Irrelevant variables should be deactivated by placing “!” before them.

Usevar are

t1LMXA t2RUM t3EE t1OP t1TA t1NE t1LC t2NA t1LMXQ Gender Age YrswSup

!LMXaxOP

LMXAxTA

!LMXAxLC

!t1LMXAc

!t1OPc

!t1TAc

!t1LMXQc

!t1NEc

!t1LCc

!LMXAxNE;

DEFINE:

!the following defines the interaction variables by mean-centering the predictors and multiplying the resulting values. For each hypothesis, only the relevant variable should be active. The irrelevant variable should be deactivated by placing “!” before it. For Hypothesis 2, the entire “Define” section should be deactivated.

!Mean-centering the IV and Moderator for the moderation analysis.

!IV:

t1LMXAc=t1LMXA-3.2;

t1LMXQc=t1LMXQ-3.3;

!M1 (H3a):

t1TAc=t1TA-2.9;

LMXAxTA=t1LMXAc*t1TAc;

!M2 (H4a):

t1OPc=t1OP-3.7;

LMXAxOP=t1LMXAc*t1OPc;

!S1: neuroticism as a moderator

t1NEc=t1NE-2.7;

LMXAxNE=t1LMXAc*t1NEc;

!S2: locus of control as a moderator

t1LCc=t1LC-5.198;

LMXAxLC=t1LMXAc*t1LCc;

ANALYSIS:

!the following specifies bootstrapping with 1000 draw.

Bootstrap 1000;

MODEL:

!the following lists the syntax for the model described in each hypothesis. Only the model being tested should be activated, testing one hypothesis at a time.

!H2:

t3EE on t2RUM t1LMXA t1LMXQ;

t2RUM on t1LMXA t1LMXQ; !t1NE !yrswsup age gender;

Model indirect: t3EE IND t1LMXA;

!H3a:

t2RUM on t1LMXA t1TA LMXAxTA t1LMXQc t1NEc !yrswsup age gender;

!H4a

t2RUM on t1LMXAc t1OPc LMXAxOP t1LMXQc t1NEc !yrswsup age gender;

!Supplementary Analysis

!S1: Neuroticism as a moderator

t2RUM on t1LMXA t1NE LMXAxNE t1LMXQ !yrswsup age gender;

!S2: Locus of control as a moderator

t2RUM on t1LMXAc t1LCc LMXAxLC t1LMXQc !t1NEc !yrswsup age gender;

APPENDIX D: IRB APPROVAL LETTER



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

October 5, 2023

Dear Ghada Baz:

On 10/5/2023, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study
Title:	Supervisor-Subordinate Relationships at Work
Investigator:	Ghada Baz
IRB ID:	STUDY00006012
Funding:	None
Documents Reviewed:	<ul style="list-style-type: none"> • HRP251 - Faculty Advisor Form - signed.pdf, Category: Faculty Research Approval; • Compensation Plan.docx, Category: Other; • Contact Information Form, Category: Recruitment Materials; • Measures List-v2.docx, Category: Survey / Questionnaire; • Recruitment Email_t1, 2 & 3, Category: Recruitment Materials; • Research Flyer, Category: Recruitment Materials; • Study 6012 HRP254 - Explanation of Research-v3.pdf, Category: Consent Form; • Study 6012 HRP255 - Request for Exemption-v3.docx, Category: IRB Protocol;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in is detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kristin Badillo
Designated Reviewer

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