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Assertiveness and leadership perceptions: the role of gender and leader-member exchange

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ASSERTIVENESS AND LEADERSHIP PERCEPTIONS: THE ROLE OF GENDER AND LEADER-MEMBER EXCHANGE

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B.A. History, University of Lethbridge, 1998

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THESIS TITLE: ASSERTIVENESS AND LEADERSHIP PERCEPTIONS: THE ROLE OF GENDER AND LEADER-MEMBER EXCHANGES

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When I asked my family what I should write about them, my son, Aidan, responded “tell them how awesome I am.” My husband, Trevor, said “no, she means how patient and supportive you have been.” Aidan’s reply “well, I have been neither of those.” Even though they may not realize it yet, Aidan and Aylish played a great part in my finishing this thesis, and yes, they had great patience for a nine and eleven year old.
Aylish always found inventive ways to spend time with me while I was typing away at my computer, and Aidan gave me welcome distractions with baseball and judo. I love you guys, and yes, you are awesome! Thank-you most of all to my husband Trevor—we did it!
Abstract

This study extends the recent research on the significant non-linear association between perceived assertiveness and a leader’s social and instrumental outcomes. Using a 3 X 2 X 2 between-participants experimental design (N = 469), with three levels of assertiveness (high; moderate; low), two levels of gender (male; female), and two levels of Leader-Member Exchange (LMX) quality (low; high), this study tested the main effects of assertiveness on leader social and instrumental outcomes, as well as the moderating effects of gender and LMX quality. The main effects hypotheses for assertiveness were supported, and as expected the moderate assertiveness condition was more predictive of positive leader outcomes when compared to the other two conditions. Gender did not significantly alter the main effects of assertiveness on leadership outcomes. However, LMX did interact significantly with assertiveness in predicting leadership effectiveness.
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Chapter 1: Introduction

A recent survey of human resource executives in the United States and Canada found that one out of every three leaders is considered ineffective, and 56% cited a lack of interpersonal skills as the number one reason why leaders fail (Wellins, Selkovits, McGrath, 2013). It is estimated that ineffective leaders cost large organizations millions of dollars annually in employee turnover and low productivity (Johnson, 2014). Given the high financial and emotional costs of failed leadership, it is surprising that research in this area is often focused on the positive relationship between interpersonal traits and leadership effectiveness, rather than on why leaders are ineffective (Ames & Flynn, 2007; Judge, Piccolo, & Kosalka, 2009; Pierce & Aguinis, 2013). By exploring the negative side of leadership, Ames and Flynn (2007) demonstrate that the interpersonal trait of assertiveness plays a much more significant role in leadership perceptions than previously thought. Leaders perceived as having too much assertiveness may accomplish short-term goals but be despised and harm their chances of getting long-term goals accomplished. On the other hand, leaders with too little assertiveness may be liked, but leaders will not be able to accomplish their goals and be perceived as instrumentally ineffective. With the increased complexity of relationships in organizations, and the high costs associated with ineffective leaders, there is a strong case to be made for elucidating the nonlinear relationships that may exist between interpersonal traits and leadership effectiveness (Judge et al., 2009; Minbashian, Wood, & Beckmann, 2010).

Assertiveness, as defined in a recent study by Ames and Flynn (2007, p. 307), is a “person’s tendency to actively defend, pursue, and speak out for his or her own interests,” and “his or her own values, preferences and goals.” In interpersonal conflict situations,
this could mean, “voicing opinions, making offers and concessions, and attempting to coerce or intimidate others” (Ames, 2009, p. 1541). Traditionally, there has been a parallel between assertiveness and the managerial role as described in Bass and Bass (2009, p. 139), “both a manager and a father are supposed to take charge, to make decisions, to take such disciplinary actions as may be necessary, and to protect others. Even women managers will be expected to follow the essentially masculine pattern of behaviour as traditionally defined” (Miner, 1978). Many times this role is not consciously recognized by subordinates, but when there is too much or too little, it then becomes part of the reason why a leader has failed (Ames & Flynn, 2007).

Now that a relationship has been established for assertiveness and perceptions of leadership effectiveness, closer examination of assertiveness and boundary conditions that will impact this relationship are warranted. Based on the literature review in Chapter 2, a gap exists in the understanding of how assertiveness, gender stereotypes, and leader-member exchange (LMX) will interact to either increase or decrease the effect of assertiveness on leadership outcomes. For instance:

(a) Will leader gender modify how perceived assertiveness affects leader social and instrumental outcomes?

(b) Will LMX quality modify how perceived assertiveness affects leader instrumental and social outcomes?

(c) Will the effect that assertiveness has on social and instrumental outcomes be modified by LMX quality and leader gender?

This gap can be satisfied by combining three different areas of research—perceived assertiveness, gender stereotypes, and leader-member exchange. These areas do not
currently overlap when considering leadership perceptions, but are very relevant to the interpersonal relationships that leaders navigate in organizational life. Thus, this study contributes to the existing leadership research in the following three important ways:

First, this study will seek to further distinguish the construct of assertiveness from aggressiveness and dominance all of which overlap, but are, in fact, distinguishable from one another. Secondly, this study contributes a unique perspective to how gender and LMX quality influence different levels of assertiveness on a leader’s social and instrumental outcomes. Leader outcomes for this study will be defined similar to the Ames and Flynn (2007) study: instrumental outcomes will be defined as the ability to achieve goals, get one’s way, persuading others (social influence) and demonstrate initiative-taking behaviours; social outcomes will be defined as the ability to get along, be liked, managing conflict, display social-emotional behaviors (verbal compliments, modelling, and praise) and team effectiveness. Through exploring the boundary conditions of assertiveness and leadership by incorporating gender stereotypes with social exchange theory, this study will provide a deeper understanding of the complex interactions that are vital to leadership success. Thirdly, this study contributes to the LMX research by combining leader personality traits with LMX to test leadership effectiveness, both of which have been lacking in the LMX area as pointed out in a recent meta-analysis by Dulebohn, Bommer, Liden, Brouer, and Ferris (2012).

A more comprehensive understanding of how a leader’s assertiveness is perceived by subordinates can lead to more effective assertiveness training for leaders, better selection criteria for hiring and promotions, and may help organizations avoid the
consequences of getting assertiveness wrong, which can lead to ineffective leaders and high costs to the organizations that employ them.

This thesis is divided into 6 chapters. A review of the construct of assertiveness is outlined in Chapter 2, as well as the relationship assertiveness has with gender and LMX in the literature. Based on the literature review, Chapter 3 outlines the theoretical model and development of hypotheses. Chapter 4 reviews the experimental methodology used to assess the research model. The results of various analytic strategies are discussed in Chapter 5. Finally, Chapter 6 discusses the research findings, the implications for theory and practice, potential study limitations, and future research directions.
Chapter 2: Review of the Literature

This chapter consists of five sections that will examine the construct of assertiveness in a review of the literature. The first section explores how assertiveness has evolved in the clinical psychology and management research, as well as the recent developments in the non-linear relationship that assertiveness has with leadership effectiveness. Building upon recent findings, section three outlines how assertiveness can be operationalized and how it is distinct from other similar constructs. The last two sections discuss the moderating variables of gender stereotypes and LMX, and the current role that assertiveness plays in these different areas of research.

Assertiveness

Being a sub-dimension of other constructs like extraversion and dominance, assertiveness is often regarded as a personality trait and not as behavior in the leadership literature, although researchers have argued that personality traits can manifest into behaviors given the right situations (House & Aditya, 1997; Judge et al., 2009). Because leadership is the ability to accomplish goals by exerting influence over others, extraversion has played a major role in the study of what makes leaders effective. Generally, assertiveness in the management and psychology research is a key characteristic of extraversion (Barrick & Mount, 1991; House & Aditya, 1997; Judge et al., 2002; Judge et al., 2009). Extraversion is usually defined as being ambitious, sociable, and having the tendency to experience positive emotions such as joy and pleasure (McCrae & Costa, 1987). It incorporates characteristics such as being active, energetic, upbeat, talkative and optimistic, and is viewed as a main dimension of the trait paradigm in the personality research on leadership (Barrick & Mount, 1991; House &...
Aditya, 1997). The Ames and Flynn (2007) study distinguished assertiveness from extraversion because it found a negative relationship for assertiveness and leadership effectiveness, whereas extraversion and its positive qualities have only had positive linear relationship with leadership effectiveness. Assertiveness can be both the bright and dark side of extraversion (Ames & Flynn, 2007; Judge et al., 2009). In the meta-analysis on individual differences and leader effectiveness by Hoffman, Woehr, Maldagen-Youngjohn and Lyons (2011), assertiveness is not measured as a separate trait, but is part of the motive to influence and the motive construct is defined as a stable individual characteristic. In relation to the motive to influence, assertiveness is “needed to direct group activities and advocate for desired changes to the organization” (Hoffman et al., 2011, p. 351).

Researchers have also studied the individual differences between leaders and non-leaders in terms of trait-like and state-like differences (Hoffman et al., 2011). Trait-like differences are defined as being more traditional, stable and having distal individual differences like extraversion, all of which have an indirect effect on leader effectiveness. On the other hand, state-like constructs, like oral communication skills, are more malleable, proximal and have direct effects on leader effectiveness (Hoffman et al., 2011). However, results from meta-analyses on personality traits and leadership effectiveness have shown weak support for the link between extraversion and leadership effectiveness (Barrick & Mount, 1991; House & Aditya, 1997; Judge et al., 2002). Therefore, it is important to examine the underlying characteristics of this trait dimension in order to possibly identify separate, and perhaps stronger, relationships. In other words,
how do perceptions of assertiveness affect how well leaders are liked and their ability to accomplish their goals?

At one point in time assertiveness was called pro-social assertiveness, but under the California Personality Inventory, it was categorized under dominance, which has negative connotations, and then dominance was moved under extraversion (House & Aditya, 1997). Recently, research has shown that assertiveness predicts leadership effectiveness independent of extraversion (Ames & Flynn, 2007). Ames and Flynn (2007) found that assertiveness was like a dish with too much or too little salt: too much salt and the taste is ruined, too little salt and the dish lacks flavor, just the right amount of salt and the flavor of the dish is enhanced. This model is the same for assertiveness and predicting leaders’ social and instrumental outcomes. If a leader is perceived as being too assertive, he or she will have negative social outcomes, while demonstrating too little assertiveness will cause the leader to have negative instrumental outcomes (Ames & Flynn, 2007). Although the Ames and Flynn (2007) study proposed that moderate assertiveness would have no effect on social or instrumental outcomes, it did not directly test this condition. Table 2.1 outlines how assertiveness has been theoretically constructed and operationalized in past studies.
<table>
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<td>Thomas-Kilmann Conflict Mode (TKI) and qualitative coding from questionnaire of MBA students: coding definition-- persistence in displaying and defending one’s ideas and interests in an unwavering manner without ambivalence; not being intimidated by others; speaking up confidently; “S/he speaks up and shares his/her views when it is appropriate,” “S/he is able to stand his/her ground in a heated conflict,” and “S/he is willing to engage in constructive interpersonal confrontations.”</td>
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7-point scale for strategic umbrage (self and target ratings)  
Ingratiation and self-promotion  
Social rules theory, aggression  
Soft tactics: ingratiation and exchange; Rationality
<table>
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</tbody>
</table>
For this literature review a manual search was conducted that consisted of checking the sources cited in the Ames and Flynn (2007) article that specifically identified references that studied assertiveness. Web of Science was also used to look for the articles that have cited the Ames and Flynn (2007) article since it was the first study to identify assertiveness as having a curvilinear effect. The search resulted in 41 articles from the time period of 2007-2014. Of the articles reviewed, there were seven articles that were relevant to the topic of assertiveness and/or leadership. Notably, there was no recent work on gender and the curvilinear relationship of assertiveness. A general search for assertiveness resulted in articles dating back to the 1970s and mostly in the area of clinical psychology; these have been noted in the review. Because this nonlinear relationship of assertiveness and leadership is relatively new, the decision was made to focus on more recent articles in the Web of Science. However, a general review of how assertiveness has progressed in the management and leadership research was also undertaken. This was done by looking at the House and Aditya (1997) review of the trait and behavioral research, and the meta-analyses by Judge, Bono, Ilies, and Gerhardt (2002), and DeRue, Nahrgang, Wellman, and Humphrey (2011) on trait and behavioral theories. Articles cited by these meta-analyses were also reviewed.

The trait paradigm in leadership research has often been separate from the behavioral paradigm (DeRue et al., 2011). The DeRue et al.(2011) study involved assertiveness that is generally considered an interpersonal trait in the leadership literature and, therefore, the review of the literature mainly focused on this paradigm. However, there was knowledge to be gained from looking at the behavioral construct of “rights” assertion and the context of interpersonal conflict situations even though this area is not
prolific in the behavioral leadership paradigm. Assertiveness is a well known paradigm in clinical psychology and popular interpersonal relationship training; much of this information borrowed from clinical psychology (Wilson, Lizzio, Whicker, Gallois, & Price, 2003). Therefore, a brief review of assertiveness as a behavioral construct in the clinical psychology was also undertaken.

**Clinical psychology.** In the clinical psychology research, assertiveness is studied in terms of how subjects perceived assertiveness in a social conflict situation (Kelly et al., 1982). In this context assertiveness is defined as verbal noncompliance to unreasonable behavior; making clear your position; speaking in a firm, appropriately loud tone, and the ability to express commendatory as well as negative feelings (Kelly et al., 1982; St Lawrence, Hansen, Cutts, Tisdelle, & Irish, 1985). Early clinical studies suggested that, in interpersonal social conflict situations, assertive individuals were considered more appropriate and effective than unassertive individuals (Kelly et al., 1982). However, the assertive individuals were also considered unsympathetic and dominant, whereas the unassertive individuals were viewed more favorably (Kelly et al., 1982). In other words, assertiveness, while seen as appropriate in a social conflict situation, did not mean that it was liked. Furthermore, these studies found that assertiveness for females could have strong negative consequences, yet the majority of assertiveness training workshops attracted females (Kelly et al., 1982).

Research on assertiveness and commendatory (liking or appreciation) situations found that assertive individuals were viewed as competent and likeable, and unassertive individuals were evaluated less favorably on both competence and likability (St Lawrence et al., 1985). Therefore, if assertiveness was used as a force to “do good”, then
it was viewed as acceptable, even expected, whereas the lack of it was viewed negatively. However, these studies did not involve perceptions about leaders’ assertiveness. Much of the clinical research defines assertiveness in terms of being able to stand up for one’s rights and gained momentum with the civil rights movement and women’s rights (Peneva & Mavrodiev, 2013). Most importantly, the definition of assertiveness in this context was not only the assertion of your own rights, but also awareness of the rights of others.

Before moving to the next section, it is important to note a few distinctions in the way assertiveness is defined in the clinical and management/leadership research. In the leadership research, the definition of assertiveness is lacking in the consideration of others rights, possibly due to the hierarchical nature of the relationship from leader to subordinate (Peneva & Mavrodiev, 2013). Another significant difference is the focus of the interpersonal relationship. The clinical research mainly focuses on individuals who are of the same status or personal relationships without hierarchical differences, whereas the leadership research is focused on how assertiveness is used by a leader who has power over another person.

**Management research.** As an interpersonal trait, assertiveness has had a long history in the psychology and management research (House & Aditya, 1997). Assertiveness has often been overlooked in leadership trait constructs, despite the fact that it was shown to have a correlation with follower’s perceptions and indicators of leadership (Ames & Flynn, 2007; House & Aditya, 1997). For this reason, assertiveness has remained in the background and shown only to be salient when there is too little or too much perceived assertiveness (Ames & Flynn, 2007). Historically, the early trait paradigm in leadership lacked empirically tested theoretical constructs for the dominate
personality traits (House & Aditya, 1997). As well, measurement validity was an issue and the samples were often not representative of the target population, i.e., high-level leaders (House & Aditya, 1997). Studies of leaders’ personality traits often focused on highly formalized organizations where there was little opportunity to demonstrate certain characteristics (House & Aditya, 1997). The review also closely associated assertiveness with high social influence motivation or pro-social assertiveness, motivation as predictive of leader effectiveness. Pro-social assertiveness as measured under the dominance scale of the California Personality Inventory, was predictive of leadership effectiveness when a high degree of persuasion was needed in decision-making (House & Aditya, 1997).

House and Aditya (1997) also called for more overlap between the trait and behavioral paradigms, suggesting that traits are likely to explain individual behaviors, but that this conclusion was highly dependent on the situation. For example, a person’s tendency to act aggressively will only manifest aggressive behavior when that person is in a situation when others disagree with or threaten that individual; this characteristic behavior will not occur across all situations, only across select situations (House & Aditya, 1997). The manifestation of traits leading to certain behaviors depending on the situation has been mentioned as an important factor in the consideration of assertiveness (DeRue et al., 2011). Assertiveness was also viewed as a self-interest trait rather than a collective interest trait and has been suggested to be correlated with self-confidence and risk taking (House & Aditya, 1997).

A meta-analysis on the “Big Five” personality dimensions found that extraversion (traits such as: sociable, gregarious, talkative, assertive, and active) was predictive of job performance, but only for certain occupations that involved social interactions such as:
managers and sales (Barrick & Mount, 1991). As stated earlier, assertiveness was a sub-dimension of dominance which was subsumed under extraversion, and extraversion became part of the well accepted personality trait measurement known as the “Big Five” factor for studying individual differences and used extensively in the leadership research (Barrick & Mount, 1991). Further, the sub-dimensions of extraversion were operationalized under the NEO personality inventory where warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotion were all included under extraversion (McCrae & Costa, 1987). However, there has been disagreement about the degree to which traits predict leadership effectiveness when compared to behaviors (DeRue et al., 2011).

Of interest is the Judge et al. (2002) qualitative and quantitative review of previous research on personality traits and leadership. In this review, Judge et al. presented a table on the traits that were represented in the previous research. Assertiveness was not in the table. However, extraversion, dominance, aggressiveness and pro-social influence were all mentioned (Judge et al., 2002). The review also suggested that many of the traits reported to be influential in leadership effectiveness were inconsistent across the literature, and there was no real agreement about which traits predicted leadership effectiveness (Judge et al., 2002). As a consequence, a wide range of traits were being investigated under different labels (Judge et al., 2002).

The Judge et al. (2002) study also made an important distinction between leadership emergence and leadership effectiveness, and how these differ in terms of the predictive power of personality traits. Leadership emergence is referred to as whether or not someone is perceived as being leader-like based on limited information about the
individual’s performance, and leadership effectiveness is a “leader’s performance in influencing and guiding the activities of his/her unit toward” goal attainment (Judge et al., 2002, p. 767). This distinction is important to the trait research because the leader being evaluated for leadership effectiveness must first be perceived as a leader (Judge et al., 2002). This study also pointed out that past research on the Big Five traits did not clearly distinguish job performance from leadership effectiveness (Judge et al., 2002).

The results of the meta-analysis suggested that extraversion was the strongest correlate to leadership, and that it was the most important trait of leadership emergence and leadership effectiveness (Judge et al., 2002). As well, it provided empirical evidence that the Big Five were correlated to leadership emergence and leadership effectiveness, and that situational factors moderate the validity of personality in predicting leadership (Judge et al., 2002). However, Judge et al. (2002) did note that these results could be an indication of individual’s implicit leadership perceptions and may have contaminated the ratings of leadership effectiveness. In their own words, “it may be that individuals’ implicitly expect leaders to be extraverted. Implicit views of leaders include aspects of both sociable (outgoing) and assertiveness (aggressive, forceful)”(Judge et al., 2002, p. 774).

Contrary to the review by Judge et al. (2002), the meta-analysis by DeRue et al. (2011) found that traits are not as predictive of leadership effectiveness as behaviors. According to them, behaviors are “more proximal to the act of leadership than are traits and, thus, will be more predictive of leadership effectiveness” (DeRue et al., 2011, p. 19). However, both Judge et al. and DeRue et al. agree that traits will manifest into certain behaviors depending on the situation, and DeRue et al. (2011) believed this happening
would limit the impact of traits on leadership effectiveness. But this study did hypothesize that, “….follower attributions and identification processes would mediate the relationship between leader traits and effectiveness” (DeRue et al., 2011, p. 21). What they did find was that traits were more predictive of affective and relational criteria than performance criteria, and that conscientiousness and not extraversion was the most consistent predictor of leadership effectiveness (DeRue et al., 2011). This conclusion is also similar to the argument made by Judge et al. (2009), in that certain traits may be more predictive of leadership emergence and that these same traits may not be as predictive of leadership effectiveness because the perceptions of the collective are different for both emergence and effectiveness. For example, an individual with low assertiveness can be perceived as having the right amount of agreeableness in terms of an appealing leadership emergence trait, yet that same characteristic may be perceived as undesirable in terms of leadership effectiveness because he or she is seen as too agreeable and unable to quell dissent or protect precious resources from competitors (Judge et al., 2009). The reverse could be true for a socially undesirable trait like high assertiveness and leadership emergence, yet a highly assertive leader can take control of an ambiguous situation and be perceived positively in terms of leadership effectiveness (Judge et al., 2009).

It is important to note that the meta-analysis by DeRue et al. (2011) did not look at leadership emergence and leadership effectiveness as separate because the study was more concerned with providing an integrated trait-behavioral model of leadership effectiveness. This meta-analysis also did not do an explicit search for assertiveness when reviewing the literature to include in the study, and the timeframe included was
1887-2008 which should have resulted in the Ames and Flynn (2007) study being included (DeRue et al., 2011). The findings of the DeRue et al. (2011) study suggested that passive leadership behaviors had a negative relationship with effectiveness. Passive leadership was defined as management by exception-passive and laissez-faire, meaning a leader who only reacts when there is a problem and the absence of leadership (DeRue et al., 2011). In fact, in the practical implications section the authors recommended that “leadership development programs should emphasize the importance of actively and assertively occupying the leadership role” (DeRue et al., 2011, p. 41). These were the same findings as the Ames and Flynn (2007) study for low levels of assertiveness on instrumental outcomes.

There are two dynamics at odds with each other within the personality traits paradigm. There are proponents of having broad dimensions, and that these aggregated traits provide a more reliable measure of the variance in underlying traits, and there are also the proponents of having narrower sub-dimensions because the study of sub-dimensions provide more explanatory and predictive power (Bergner, Neubauer, & Kreuzthaler, 2010; Minbashian et al., 2010). The fact that trait dimensions like the “Big Five” are too broad may contribute to weaker prediction for leadership effectiveness (DeRue et al., 2011). However, another important factor in this debate is how the predictor needs to measure the right criterion, which is especially true for the studies of the narrower sub-dimensions (Judge et al., 2002).

**Development.** Recently, researchers have begun to investigate assertiveness as a separate trait dimension of leadership. Using content analysis, Ames and Flynn (2007) defined assertiveness in terms of a leader’s strengths and weaknesses. This definition is a
departure from the previous measures of extraversion because the positive nature of extraversion obscured the possible negative effects of assertiveness. Therefore, the unique contribution of this study was that it was looking at ineffective leaders rather than investigating the traits and behaviors that have a positive relationship with leadership effectiveness. In this study, the definition of assertiveness connected closely with the everyday use of the term: a “person’s tendency to actively defend, pursue, and speak out for his or her own interests”, and “their own values, preferences and goals”. As well, assertiveness was considered on a spectrum of polar opposites. For instance, at one end of the spectrum there is aggression and competitiveness, and at the other end deference, abasement, and mild mannered behavior (Ames & Flynn, 2007). In three separate studies involving MBA students, Ames and Flynn (2007) determined that assertiveness was linked to qualitative weakness comments for both social and instrumental outcomes, and quantitative analysis produced a curvilinear effect for high and low assertiveness on both of these outcomes.

In the first study, MBA students collected comments about their own strengths and weaknesses from former work colleagues. A survey and open-ended questions were analyzed quantitatively in order to determine the frequency in which assertiveness was mentioned in both strengths and weakness comments. The results supported the hypothesis that assertiveness would be more prevalent in weakness comments, and that assertiveness was not mentioned in the top thirty strength comments (Ames & Flynn, 2007). The second study attempted to test the findings of Study 1. MBA students were again asked to have former colleagues rate their assertiveness in order to see if too little or too much assertiveness would have the predicted curvilinear effect (Ames & Flynn,
Multiple regression analyses were performed on both the linear and squared terms resulting in significant negative effects for extreme high and low levels of assertiveness in managing teams, dealing with conflicts, and influencing and motivating others (Ames & Flynn, 2007). While Study 2 showed that those with very low levels of assertiveness were rated significantly worse at influencing others and managing conflict, there were no significant differences for motivating others or managing teams (Ames & Flynn, 2007).

Due to the non-significant result for motivating others and managing teams, Ames and Flynn (2007) performed a third study that again involved MBA students. A key difference in this study was that the students’ leadership effectiveness was not being measured, but their most recent supervisors’ overall leadership and future leadership success were the target variables. This third study attempted to replicate and extend the findings of the first two studies, as well as explore the underlying processes of the curvilinear effect while supporting the mediation of low and high assertiveness on social and instrumental outcomes (Ames & Flynn, 2007). The regression analysis revealed that a middle range of assertiveness was associated most with positive leadership perceptions, and there was no significant linear effect for assertiveness and social outcomes, but instead displayed a curvilinear effect (Ames & Flynn, 2007). The middle range of assertiveness was determined by taking a tertiary split of the 7-point scale for the assertiveness measure (4.74-5.75) (Ames & Flynn, 2007). This mid-range or moderate assertiveness was not an operationalized variable in the study.

Subjects with high levels of assertiveness had significantly worse social outcomes than those with moderate levels of assertiveness, but subjects with low levels of assertiveness did not show significant differences in social outcomes than those with
moderate assertiveness (Ames & Flynn, 2007). The results for instrumental outcomes showed both a significant positive linear effect and a curvilinear effect. As expected, those subjects lowest in assertiveness had significantly worse instrumental outcomes than those with moderate assertiveness, but those with high levels of assertiveness did not differ significantly in instrumental outcomes from those with moderate levels of assertiveness (Ames & Flynn, 2007). The results were interpreted to mean that moving from high to moderate levels of assertiveness would increase returns for social outcomes, while moving from low to moderate levels of assertiveness would increase instrumental outcomes (Ames & Flynn, 2007).

The underlying assumption of a curvilinear effect was based on impression formation and that bad impressions would be stronger than good impressions:

Underlying social and instrumental effects aggregate to a curvilinear relation between assertiveness and leadership. Assertiveness is positively linked to instrumental outcomes and negatively linked to social outcomes. Perceivers weigh costs more heavily than benefits; below a certain point, perceivers attend more to instrumental costs than to instrumental benefits. These main effects aggregate to a curvilinear effect for overall perceptions of leadership (Ames & Flynn, 2007, p. 309)

Other key findings in this study were that assertiveness had significant effects on leadership when extraversion was controlled for (Ames & Flynn, 2007). Therefore, the authors claimed that assertiveness was a critical component of perceptions of leadership (Ames & Flynn, 2007). Also, getting assertiveness right was not a dominant theme in the perceptions of leaders’ strengths. More importantly, the study showed that the predictive value of many other personal attributes may be underestimated when examining leadership effectiveness (Ames & Flynn, 2007).
Owing to the popularity of finding nonlinear or counter-theoretical effects in management research, recent articles in the *Journal of Management* and *Perspectives on Psychological Science* have called for a meta-theory called Too-Much-of-a-Good-Thing-Effect (Pierce & Aguinis, 2013). This meta-theory answers the challenge to the linear effects paradigm and the seemingly anomalous findings based on linear relations (Pierce & Aguinis, 2013). The search for desirable antecedents may lead to unanticipated consequences when there is too much of a good thing, and the relationship can quickly turn negative (Pierce & Aguinis, 2013). The Pierce and Aguinis article proposes a model for theory testing and suggests that many researchers actually find curvilinear effects, but do not report them because of the statistical power (Pierce & Aguinis, 2013). Similar suggestions have been made recently in the field of psychology. For researchers studying positive phenomena, there may be a point that is reached where the effect becomes negative (Grant & Schwartz, 2011). Both of these works cited the Ames and Flynn (2007) study.

The effect found by Ames and Flynn (2007) has also been cited by well known authors in the area of leadership. For example, Timothy Judge and colleagues recently cited the effect of assertiveness in their study on evolutionary trait theory. The Judge et al. (2009) article examined the causes of certain traits and why these have been associated with leadership emergence. This research has important implications for the work on assertiveness because it explored genetics and natural selection processes as possible causes of traits that have been studied in the Big Five and other less common attributes (Judge et al., 2009). The article proposed a Leader Trait Emergence Effectiveness theoretical model that combined the causes of traits with situation as a
mediator and external pressures as moderators for leadership emergence (actual and perceived) leading to subjective or objective leader effectiveness (Judge et al., 2009). Although assertiveness is still under extraversion in this model, the paper does benefit the study of assertiveness indirectly by arguing that personality traits are still relevant to leadership theories (Judge et al., 2009). Gender or prescribed gender stereotypes are not included in this model.

In the past it has been argued that different traits are likely to explain individual behavior in certain situations (House & Aditya, 1997). Ames (2008b) explored this aspect of assertiveness in his recent research on assertiveness in organizational life. Extending the curvilinear effect of assertiveness to “situationally” appropriate assertiveness, Ames found that it is not merely a matter of displaying average assertiveness, but managers have to fit their behavior to the situation’s demands before subordinates will perceive manager effectiveness (Ames, 2008b). As well, when levels of assertiveness were displayed across situations and observed by subordinates these perceptions were then expected in a specific context (Ames, 2008b). Ames also examined how leaders were unaware of their actual level of assertiveness and what the appropriate level of assertiveness should be in the organizational context. Two studies were undertaken with professionals reporting on their managers’ behaviors across situations with subordinates, superiors, customers, and suppliers (Ames, 2008b). This paper also called for future research on gender and perceiver stereotypes and whether female managers displaying over-assertive behaviors would be judged more harshly than male managers, and if male managers would be judged harshly for under-assertive behaviors (Ames, 2008b).
Following up on the findings of assertive expectancies, Ames (2008a), looked more closely at how behaviors were reflected in assertiveness expectancies and what these expectancies would achieve in terms of outcomes: meaning that some people will be assertive because they expect they can be, while others will not be assertive because they believe they must not be (Ames, 2008a). Ames also examined how the curvilinear effect of assertiveness would impact people’s assertiveness expectancies; how hard can I push before there will be negative consequences (Ames, 2008a)? Unlike the previous study on assertiveness by Ames and Flynn (2007), this study included “perceived optimal assertiveness” as an additional independent variable (Ames, 2008a). The construct of optimal assertiveness is used in this study to test what subjects expect assertiveness can get them in terms of social and instrumental benefits, and when it may cost them (Ames, 2008a). It did not measure perceptions of someone else’s assertiveness but one’s own level of high, moderate, or low assertiveness.

A total of four studies were done and the findings suggested that people were aware that they could push up to a certain point and then there would be negative consequences (Ames, 2008a). This conclusion supports the curvilinear relationship between assertiveness and outcomes (Ames, 2008a). Studies 1 and 2 were exploratory to see how assertiveness expectancies should be measured, and Studies 3 and 4 were about testing the outcomes from the first two studies. Subjects were also asked to rate their own level of assertiveness and their own social values compared to that of their classmates (Ames, 2008a). The results of this study supported the prediction of a curvilinear effect for assertiveness on social and instrumental because the majority of subjects drew an inverted U on the axis. However, there was a sizeable minority that drew a straight
upward line for assertiveness and instrumental outcomes; there was no point at which there was a cost to being assertive and attaining instrumental outcomes (Ames, 2008a).

Study 2 involved working managers that were part of a business education program. Subjects were given three separate scenarios in order to measure their own assertiveness response, and what they expected the social and instrumental outcomes to be. The key results of this study showed that the expected cost or benefits of a highly assertive response weighed more heavily than moderate or low assertiveness responses for preferred assertiveness (Ames, 2008a).

Studies 3 and 4 also involved MBA students and scenarios involving negotiations and workplace situations. The aim of these two studies was to measure the expectancies in fictional contexts to predict behaviors in somewhat real-world contexts (Ames, 2008a). The results supported the hypothesis that there was a link between targets’ self-reported expectancies and other people’s perceptions of the targets’ assertiveness (Ames, 2008a). Study 4 also used “real-world” or “work” assertiveness as a dependent variable, and was measured with items from the Thomas-Kilmann Conflict Mode scale: “S/he speaks up and shares his/her views when it is appropriate”, “S/he is able to stand his/her ground in a heated conflict”, and “S/he is willing to engage in constructive interpersonal confrontation” (Ames, 2008a). Work assertiveness was positively correlated to social expectancies; if a person expected positive social outcomes from highly assertive behavior the more likely he or she was viewed as assertive by former colleagues. In other words, what a subject expected from assertive behavior is how they were perceived in the workplace (Ames, 2008a). It is worth noting that work assertiveness was not self-reported, and former work colleagues with several years of work experience rated the
targets and the targets self-reported expectancies based on fictional scenarios (Ames, 2008a). Further, the study did find considerable variance in individual perceptions of the optimal level of assertiveness, suggesting that although people know there will be a negative consequence to pushing too hard, there is no agreement on when this limit is reached (Ames, 2008a). Ames (2008a) also found that expectancy was not contingent on the value that people placed on their relationships. However, this finding could be that subjects valued the social and instrumental outcomes equally and there was not enough variation in high or unvalued outcomes (Ames, 2008a). Overall, the study suggested that assertiveness expectancies played a predictive role in why some people push harder than others (Ames, 2008a).

Another Ames (2009) study reviews the previous work on assertiveness and attempts to conceptualize interpersonal assertiveness. The main focus of this paper was to address how assertiveness is used as an everyday concept and then use this data as a framework for understanding assertiveness as a single dimension (Ames, 2009). For instance, Ames (2009) focused much of his attention on the descriptions of failed leaders instead of only successful leaders. Failed leaders were defined by having 250 professionals describe the worst and best leaders they had ever worked for (Ames, 2009). Coding analysis found that 35% of failed leaders had one extreme or another of assertiveness compared to only 13% of effective leaders (Ames, 2009). However, it is important to recognize that these are perceptions of leadership effectiveness and not actual measured performance outcomes, and there was no definition of failed leadership in terms of outcomes stated in the article (Ames, 2009). This finding resulted in
assertiveness emerging as the most common theme and appeared in over half of the descriptions for failed leaders, further supporting previous findings (Ames, 2009).

In another study by Ames (2009), assertiveness across domains was evaluated. The findings are important because those seen as over-assertive in one domain, for example with customers, were also more likely to be seen as over-assertive in another domain, for example, supervising subordinates. As well, this observed assertiveness in one domain was more predictive of assertiveness in other domains than by ratings of normative or ideal assertiveness in that given domain (Ames, 2009).

Further, Ames (2009) also connected assertiveness and extraversion to the prediction of close acquaintanceship, and how this may determine an individual’s assertiveness expectancies; high assertive individuals were more likely to seek out highly assertive acquaintances than low assertive individuals.

The latest study from Ames and Wazlawek (2014) explored self-awareness and assertiveness. In other words, how hard people believe they are pushing for their own rights compared to how they are seen by others in conflict situations. Four studies were conducted to test the degree to which people in conflict situations were capable of self-perceiving assertive behavior. Study 1 revealed that self-perception of assertiveness was more than just incomplete awareness. Three hundred and thirty-eight MBA students were paired in a role-playing negotiation and were then asked to rate their own assertiveness as “very under-assertive,” “somewhat under-assertive,” “appropriately assertive,” “somewhat overly assertive,” and “very over-assertive” (Ames & Wazlawek, 2014). Participants also rated their partners on the same scale. This scale was based on the folk notion of assertiveness that had been found meaningful in previous studies.
The findings were unexpected in the first study as they revealed that those who thought they were getting assertiveness right were actually getting it wrong, and those who thought they were getting assertiveness wrong were actually getting it right (Ames & Wazlawek, 2014). This finding was labeled the *line crossing illusion*. More importantly, a significant portion of participants (38%) whose counterparts thought they were appropriately assertive, actually believed they were over-assertive in the negotiation (Ames & Wazlawek, 2014).

Study 2 replicated and extended the findings of Study 1 using a sample of 428 participants from Amazon’s Mechanical Turk. Studies 3 and 4 once again used MBA students. Although the article dealt with everyday conflict situations and assertiveness, it did not focus on leader and subordinate interactions, and did not test leadership effectiveness. However, the major findings of the study are still relevant to leadership research because many leadership situations involve negotiations, which were the main focus of all four studies in Ames and Wazlawek (2014). For instance, 57% of those seen as under-assertive actually thought their counterparts perceived them as appropriately assertive or over-assertive. Of those participants seen as over-assertive, 56% thought their counterparts viewed them as appropriately assertive or under-assertive (Ames & Wazlawek, 2014). Surprisingly, many of the participants who were viewed as having the “right touch” viewed themselves as going too far (Ames & Wazlawek, 2014).

In summary, this article and much of the recent work on assertiveness uncovers the challenges associated with such a multifaceted interpersonal trait, and the complexity of interactions which lead to the interesting dynamics of a multi-dimensional construct.
Table 2.2 summarizes the timeline and key concepts found as a result of the literature review.

**Table 2.2**  
*Summary of Key Concepts in the Review of the Literature*

<table>
<thead>
<tr>
<th>Key concepts</th>
<th>Clinical Psychology</th>
<th>Area Management</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Focus on individuals of the same status</td>
<td>• Assertiveness viewed as a self-interest rather than a collective interest</td>
<td>• Focus on individuals of different status</td>
</tr>
<tr>
<td></td>
<td>• Assertiveness necessary but not liked in social conflict situations</td>
<td>• Assertiveness viewed as key characteristic of extraversion (Big Five)</td>
<td>• Leadership effectiveness vs. leadership emergence</td>
</tr>
<tr>
<td></td>
<td>• Lack of assertiveness in commendatory situations viewed negatively</td>
<td>• Measured under extraversion and dominance</td>
<td>• Often associated with extraversion, aggression and dominance</td>
</tr>
<tr>
<td></td>
<td>• Rights assertion: assertion of your own rights while respecting the rights of others</td>
<td>• Early measurements of dominance &amp; extraversion questionable (predictor &amp; criterion misaligned)</td>
<td>• Personality traits are significant predictors of affective and relational effectiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Distinction between behavioral and trait differences</td>
<td>• Assertiveness emerged as a significant weakness for leadership effectiveness</td>
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<td></td>
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<td>• Situational assertiveness: assertiveness is judged equally across situations</td>
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<td></td>
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<td>• Assertiveness expectancies often determine how assertive an individual will be perceived</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Self awareness and assertiveness: individuals are often not aware of how assertive they are</td>
</tr>
</tbody>
</table>

**Timeline**  
1970-90s  
1990-early 2000s  
Early 2000s-2014

**Distinction from Similar Constructs**

**Dominance.** Up until the Ames and Flynn (2007) study on assertiveness, the distinction between dominance, extraversion, and assertiveness had been unclear in previous studies of personality traits and perceptions of leadership effectiveness.

Although dominance and assertiveness are often viewed as similar characteristics in the leadership literature, dominance usually implies that an individual is in, or is attempting to be in, a position of power over another individual, whereas an individual can still insist
on his or her rights without trying to dominate others. According to Judge et al. (2009), dominance, or social dominance, is viewed as a facet of extraversion, along with sociability in the individual trait differences research.

Based on the Social Dominance Theory, dominance refers to a person’s preference for hierarchy and scale questions include, “To get what you want, it is sometimes necessary to use force against other groups” or “Some groups of people are simply inferior to other groups” (Pratto, Sidanius, Stallworth, & Malle, 1994). However, the Social Dominance scale developed by Pratto et al. (1994) did distinguish the interpersonal dominance construct from social dominance by using the California Personality Inventory (CPI) Dominance scale and the Jackson Personality Research Form (JPRF) Dominance scale. The CPI scale defines dominance as the extent to which people like to be in charge and are efficacious, or have the power to produce a desired effect. This scale also has assertiveness as a sub-dimension of dominance. The JPRF Dominance scale defines dominance as: attempting to control one’s environment, influencing and directing other people, forceful, decisive, authoritative, and domineering (Pratto et al., 1994). Both social dominance and interpersonal dominance have been correlated with leadership and have been viewed as a significant individual difference between leaders and non-leaders (Pratto et al., 1994; Judge et al., 2002 & 2009).

Aggressiveness and assertiveness. Past and current research on assertiveness frequently has aggressive traits as part of the construct or operational definition for assertiveness as can be seen in Table 2.1. Although they may have some similar characteristics at the extreme end of the continuums, assertiveness does have distinct levels (high, moderate, low) that do not reflect either aggressive or submissive traits. In
the psychology research, aggression is referred to as assault, indirect aggression, anger, resentment, and suspicion (Buss & Perry, 1992). One of the measures commonly used is the Buss-Durkee Hostility Inventory or modified versions of this scale. Examples of items in the four aggression factors are “If I have to resort to violence to protect my rights, I will”, “I can’t help getting into arguments when people disagree with me”, “Sometimes I fly off the handle for no good reason”, and “When people are especially nice, I wonder what they want” (Buss & Durkee, 1957). Not surprisingly, assertiveness does correlate with verbal aggression (.49) and anger (.40), but anger is also found to correlate strongly with the other sub-traits of aggression and could be viewed as a bridge between the instrumental and cognitive components of aggression (Buss & Perry, 1992).

Workplace aggression in the management research is referred to as deviance, antisocial behavior or retaliation. Interpersonal conflict is linked to workplace aggression in a meta-analysis by Hershcovis et al. (2007), but interestingly assertiveness is not identified as part of this dimension. It could be that perceptions of high assertiveness are being confused with aggression because of anger, yet does anger have to be a part of highly assertive behavior? The present study will attempt to separate high assertiveness from aggression by leaving the anger out of high assertiveness. Granted this is a fine line, but it still needs to be tested in order to strengthen construct validity.

**Operationalizing Levels of Assertiveness**

The operational definitions of the levels of assertiveness for this experimental study are based on a comprehensive the review of the literature (e.g., Barrick & Mount, 1991; House & Aditya, 1997, Kelly, et al., 1980; St. Lawrence et al., 1985) and the most current research on assertiveness (e.g. Ames & Flynn, 2007; Ames, 2009; DeRue et al.,
2011; Judge et al., 2002). The physical characteristics of assertiveness from the clinical and communications research have also been informative and have helped shape the experimental vignettes that were pretested before use in the main study. It is important to reiterate a fundamental distinction about assertiveness in the clinical psychology and leadership research; social equals and recognition of others’ rights is missing from the leadership research. The hierarchy distinction may be a matter of the implicit nature of the leadership role and, as a consequence, the rights of others are ignored in the definition of assertiveness in the leadership research. Based on the review of the literature in Chapter 2, Figure 2.1 has been constructed to represent the current continuum for assertiveness, which is limited to submissiveness on one end and aggressiveness on the other end (e.g. Kelly, et al., 1980; Costa & McCrae, 1988; Wilson, et al., 2003; Ames & Flynn, 2007). Although the Ames and Flynn (2007) study identifies levels of assertiveness, the operational definitions were co-mingled with submissiveness and aggressiveness as can be seen in the assertiveness measures used in study 3; “S/he is assertive,” “S/he is competitive, aggressive,” and “S/he is passive, submissive.”

![Figure 2.1]

This study seeks to build upon this new definition by distinguishing assertiveness even further from aggressiveness and dominance, and proposes a new continuum as illustrated in Figure 2.2. Through this distinction from closely correlated constructs, assertiveness may become more identifiable as a predictor of leadership outcomes. Narrowing the
construct of assertiveness and how it is operationally defined may help to expand the use
of the construct in predicting narrowly defined leadership outcomes or subordinate
criterion (Kaiser & Hogan, 2011).

**High assertiveness.** High assertiveness will be defined as pursuing personal
interests in a non-dominant or non-aggressive manner; persistently advocating for
personal goals *without regard for others rights or opinions* (Ames & Flynn 2007); will
not be swayed from a certain position and only cares about what gets done, not how it
gets done. High assertiveness is distinguishable from aggressiveness because pursuing
personal goals is done in a non-threatening manner; with special attention paid to taking
anger out of this definition. High assertiveness is distinguishable from dominance in that
dominance implies the use of force against a perceived inferior group in order to get
one’s way.

**Moderate assertiveness.** Moderate assertiveness is defined as the ability to speak
up for one’s own rights or defending other’s rights while *respecting the rights of others*;
taking into consideration others views while speaking up for personal goals and actively
making legitimate claims; willingness to compromise (Ames & Flynn, 2007).
Low assertiveness. Low assertiveness is defined as submission to opposing views when it is unnecessary to do so (Ames & Flynn, 2007). It is distinguishable from passiveness because a low assertive individual will still speak up for their rights but not clearly define their personal opinion, whereas a passive individual will submit to opposing views rather than press the issue further.

This study will make further distinctions between the assertiveness construct and aggressiveness/dominance. The Ames and Flynn (2007) study only distinguishes assertiveness from extraversion, while other closely related constructs could be confounding the previous findings for perceived assertiveness.

Assertiveness and Gender Stereotypes

Although gender and leadership have been studied extensively as part of the trait paradigm, a review of the literature revealed a gap in the perceptions of assertiveness and the role that gender, or prescribed gender roles, plays in the relationship with leadership effectiveness (House & Aditya, 1997). If a relationship does exist between perceptions of assertiveness and gender in leadership effectiveness, this could help explain the apparent stagnation of progress for women in the top management positions. Despite the progress women have made in the workplace, the current statistics (fiscal year 2013-14) for senior management occupations in Canada paint a different picture for women in top leadership positions as opposed to men in top positions. Although the sample is small, 67.3 positions, males occupy 71% of senior level positions in organizations and females 29%. With all management categories combined, (a sample of 2911 positions), women still
only account for 36% of management jobs in Canada\(^1\). This statistic has changed little over the last 15 years as can be seen by the chart produced by Catalyst in 2014—see Appendix A.

As indicated in the Ames and Flynn (2007) study, there should be research that explores the relationship between the curvilinear effect of assertiveness and prescribed gender stereotypes, more specifically, how assertiveness relates to the agentic construct that is often used in the gender stereotype research. Agency as defined in the Judge et al. (2009) study is motivation to get ahead rather than being motivated to get along, and these motives are closely linked to personality. For example, conscientiousness and extraversion are closely associated with motivation to get ahead (Judge et al., 2009).

Therefore, the historical link between the constructs of assertiveness and extraversion in the leadership paradigm may also be relevant to agency and assertiveness in the gender stereotype research. This connection is also made by Eagly and Johnson (1990) in their meta-analysis on gender and leadership. In this study, the dimensions in gender research, masculine and feminine, instrumental and expressive, and agentic and communal, are compared to the task and interpersonal dimensions studied in leadership research because the ideas are similar, although not as broad, as they are in the gender stereotype research (Eagly & Johnson, 1990). The task dimension or initiation of structure (having subordinates follow rules and procedures, maintaining high performance, and making

\[1\] Table 282-0009 8, 9 Labor force survey estimates (LFS), by National Occupational Classification for Statistics (NOC-S) and sex, unadjusted for seasonality. The NOC-S Senior Management Occupations: Occupations in this major group are primarily concerned with establishing government policy and carrying out the functions of management through middle managers, in all levels of government and in industrial, commercial, or institutional organizations. Managing functions include: planning, organizing, co-ordinating, directing, controlling, staffing, and formulating, implementing or enforcing policy. Supervising is not considered to be a management function.

35
explicit the leader-subordinate role) is viewed as similar to the masculine or agentic orientation in the gender stereotype research (men are believed to be more self-assertive and motivated to master their environment); the interpersonal dimension or consideration (helping behaviors, doing favors for subordinates, and being friendly and available) is viewed as similar to the feminine or communal orientation (selfless, kind, sympathetic, understanding, and concerned with others) (Eagly & Johnson, 1990; Heilman & Okimoto, 2007).

In a recent study by Heilman and Okimoto (2007) assertiveness is also used as a measurement of agentic behavior. In this study, the perceived agenticism measure was a six item 9-point bi-polar scale: strong-weak, assertive-not assertive, tough-not tough, bold-timid, active-passive, and dominant-submissive ($\alpha = .82$). A review of the recent gender stereotype research indicates that assertiveness has not been used as a manipulated variable in perceptions of gender stereotypes. Further, the research on gender stereotypes often refers to the role of leader as masculine or agentic because of the influence of social role theory (Eagly, Wood, & Diekman, 2000). This theory argues that people base their beliefs about gender on the observed roles that men and women perform (Eagly et al., 2000). Consequently, leadership roles have predominately been occupied by males and have been observed to be male dominated, hence the stereotype of leaders as agentic (Eagly et al., 2000). Agentic behaviors have been described as demonstrating dominance, competitiveness, and achievement orientation (Heilman & Okimoto, 2007). Interestingly, these mirror some of the same dimensions of the Thomas-Kilmann scale used to measure leader assertiveness in the Ames and Flynn (2007) study as listed in Table 2.1.
Often social roles were described in social psychology as real differences between behaviors of men and women (Eagly et al., 2000). Numerous studies have been done on gender differences between men and women when it comes to leadership, but these studies were on actual leadership behaviors, both structuring and supporting (Gregory, 1990). The results of most of these studies were that women and men are very similar in terms of leadership style, with women seen as slightly higher in the supporting role (Gregory, 1990). However, research on gender roles has started to separate perceptions from actual behavioral differences (Eagly & Karau, 1991; Heilman, Block, & Martell, 1995). Perception is a significant distinction to make in regards to gender stereotypes because research indicates that although men and women do not behave significantly different in their roles as leaders, they are perceived differently by their subordinates (Eagly & Johnson, 1990). The difference between descriptive and prescriptive stereotypes also makes this distinction; descriptive designates what women and men are like and prescriptive designates what women and men “should” be like (Heilman & Okimoto, 2007). This current study will be examining prescriptive roles.

**Role congruity and lack of fit model.** Building on the work of Alice Eagly, Madeline Heilman used the Lack of Fit model to support the theory that women are perceived negatively, not because they are in a masculine role, but because they have violated their own prescribed female role (Heilman & Parks-Stamm, 2007). Further, norm-violating behavior does not have to be observed before a woman can be perceived negatively; the knowledge that she has been successful in a male dominated role is enough to cause social penalties (Heilman & Okimoto, 2007). These findings suggest that the role of leadership and the prescriptive stereotype for females are at odds with each
other, as conceptualized by role incongruity theory (Eagly & Karau, 2002). Women violating their female prescriptive role can incur social penalties in the form of social rejection and are often less liked than their male counterparts (Heilman & Okimoto, 2007). These negative reactions are often targeted toward the lack of communal behavior: selfishness, deceitfulness, deviousness, coldness, and manipulativeness (Heilman & Okimoto, 2007). More importantly, the Heilman and Okimoto (2007) study shows that only when communal information was supplied did the negativity towards the female manager stop. The moderate level of assertiveness being tested in the present study has some of the communal qualities tested in the Heilman and Okimoto (2007) study, like understanding and concern for others’ viewpoints, but are borrowed from the rights assertion research referred to earlier.

The majority of prescriptive gender stereotype research has been done with student subjects; therefore, there may be a lack of understanding about how these stereotypes are perceived in the real world of work (Gregory, 1990; Heilman, 2012; Prime, Carter, & Welbourne, 2009). Further, the studies with student samples have generally tested workplace situations on a sample that is not representative of the target population. This study will address the need for testing prescribed stereotypes on a more representative working adult sample by presenting online scenarios to working adult respondents, thus directly testing the target population.

**Assertiveness and Leader-Member Exchange (LMX)**

**Social exchange theory.** The Ames and Flynn (2007, p. 307) study states that high levels of assertiveness may bring “instrumental rewards and short-term goal achievement but can be costly when relationships fray or fail to take root” [italics
LMX provides the theoretical foundation to further investigate if the curvilinear nature of assertiveness holds true under conditions of different quality of leader-member exchanges. Based on Social Exchange Theory (SET), relationships in the workplace are formed when there is a reciprocal nature to the interactions of leader and member (Cropanzano & Mitchell, 2005). Because the quality of relationship depends greatly on nature of the exchanges, it has been argued that influence tactics play an important role in LMX and because subordinate outcomes have been shown to be dependent on LMX quality, influence tactics used by subordinates have been tested in a number of studies (Ansari & Kapoor, 1987; Chen & Aryee, 2007; Graen & Uhl-Bien, 1995). Due to the over-reliance on subordinate perceptions and outcomes, assertiveness has been mostly viewed as an influencing tactic in the LMX literature and not from the perspective of a leader’s interpersonal trait or behavior (Dulebohn et al., 2012).

In fact, interpersonal relationships are often not considered when looking at LMX (Martin, Epitropaki, Thomas, & Topakas, 2010; Phillips & Bedeian, 1994; Thomas, Martin, Epitropaki, Guillaume, & Lee, 2013). The theory of LMX is grounded in a leader’s differentiating relationship with each follower based on reciprocal exchanges that lead to the development of high or low quality relationships with followers (Graen & Uhl-Bien, 1995). Relationships are fundamental to this theory yet LMX has devoted minimal attention to leader personality (Dulebohn et al., 2012). In the leader-member relationship, the leader controls important work outcomes: therefore, it is in the follower’s interest to develop good LMX relations in order to secure the valued outcomes (Wayne, Liden, & Sparrowe, 1994). It is also argued that due to the power differential in most exchange relationships, it is logical that leaders exert more control in the
development of the leader-member relationship. Therefore most of the research focuses on what the leader determines are desirable qualities in a follower and what behaviors will illicit positive outcomes for the follower (Dulebohn et al., 2012).

Phillips and Bedeian (1994) positively linked introversion/extraversion to subordinate assessed LMX quality, in that extraverted followers had self-reported higher quality relationships with their leaders. However, this finding is once again from the perspective of the follower about the follower’s characteristics, not the leader’s. Bernerth, Armenakis, Feild, Giles, and Walker (2008) investigated the role that the Big Five personality traits play in personality congruence of leader-member and LMX quality. They hypothesized that differences in extraversion between employees and supervisors would negatively relate to employee perceptions of LMX quality (Bernerth et al., 2008). Their hypothesis was not supported and differences in extraversion did not negatively affect perceptions of LMX. The authors concluded that extraverts are capable of engaging in social exchanges with extraverts and introverts (Bernerth et al., 2008). However, the non-finding could have been because the dimension of extraversion was too broad and assertiveness had not been isolated and studied separately with LMX quality. Although the Bernerth et al. (2008) study used LMX quality as a dependent variable, what would be the effect of LMX quality and assertiveness on leadership effectiveness? This interaction has yet to be tested in the LMX or assertiveness research, and therefore this gap in the LMX research will be incorporated into the theoretical model and tested as a moderator on assertiveness and leader outcomes.
Chapter 3: Theoretical Model and Hypotheses Development

Theoretical Model

Based on the review of literature in Chapter 2, a gap exists for the boundary conditions of assertiveness (e.g. Ames & Flynn, 2007; Eagly et al., 2000; Eagly & Blair, 1990; Dulebohn et al., 2012; Heilman & Okimoto, 2007; Martin et al., 2010). More specifically, how the influence of gender stereotypes and LMX may help identify important situations or conditions in which low or high assertiveness may be socially acceptable and effective at the same time, or the right conditions for moderate assertiveness to have a significant effect on a leader’s social and instrumental outcomes. The following theoretical model (see Figure 3.1) has been developed to test the main effects of high, moderate and low levels of assertiveness on leader social and instrumental outcomes. Also being tested are the possible moderation effects of leader gender for assertiveness on social and instrumental outcomes, and high and low LMX quality for assertiveness on leader social and instrumental outcomes.

Figure 3.1 Theoretical model.
Main Effects Hypotheses

The main effects in the model are tested for the three levels of assertiveness, two of which extend the findings of the Ames and Flynn (2007) study. As in the Ames and Flynn (2007) study, it is predicted that high levels of assertiveness will have a negative affect on leader social and instrumental outcomes. As well, low levels of assertiveness are predicted to have a negative affect on leader instrumental and social outcomes. The moderate level of assertiveness is the only level that was not directly tested in the previous study. The middle range of assertiveness was developed by doing a tertiary split of the results for measures of assertiveness but was not theoretically constructed and only statistically defined (Ames & Flynn, 2007). Although the Ames and Flynn (2007) study did not find a significant linear effect for moderate assertiveness, it was associated with the most positive leadership perceptions without this condition being directly tested and assumed as a background condition; “….it facilitates success but when it is in place, other attributes become more salient” (Ames & Flynn, 2007). However, now that “what not to do” in terms of assertiveness has been identified, we have a better understanding of how to test for effects of moderate assertiveness on leader outcomes. By defining too much and too little assertiveness as curvilinear effects, moderate assertiveness should produce a significant positive linear effect when tested as its own condition.

The Ames and Flynn (2007) study found that there was a significant benefit to social outcomes if a leader moved from high assertiveness to moderate assertiveness, but not from moderate to low assertiveness. Likewise, moving from low assertiveness to moderate assertiveness significantly benefitted instrumental outcomes, but there was no significant benefit to instrumental outcomes if a leader moved from moderate to high
assertiveness. Based on the differences for levels of assertiveness identified by Ames and Flynn (2007), and that a leader needs to be goal oriented for task completion, but also have the ability to get along with others, it is hypothesized that:

H1: The high assertiveness condition will have (a) a negative effect for leader social outcomes, and (b) a positive effect for leader instrumental outcomes.

H2: The moderate assertiveness condition will have (a) a positive effect for leader social outcomes, and (b) a positive effect for leader instrumental outcomes.

H3: The low assertiveness condition will have (a) a negative effect for leader instrumental outcomes, and (b) no effect for leader social outcomes.

Moderation Hypotheses

There are negative social outcomes for leaders that are perceived to be too assertive, and leaders that are perceived as not assertive enough are seen as weak (Ames & Flynn, 2007). The Ames and Flynn (2007) study indicated that assertiveness plays an important role in perceived leadership ability, and the prescribed stereotype research often portrays assertiveness as an agentic leadership trait. Therefore, does gender play a role in increasing or decreasing the effect of assertiveness on leadership outcomes? Based on role congruity and the lack of fit models, highly assertive female leaders should be perceived as less socially and instrumentally effective than their male counterparts, because female leaders are not adhering to their societal roles of the communal mother figure when acting in an agentic manner (Heilman, 2012). Although, highly assertive male leaders may pay a price for being too assertive, this will not be as costly for male leaders because they are still expected to act in an agentic manner. Further, the moderate assertiveness being tested in this study has some of the communal qualities (consideration of other’s views & willingness to compromise) that are prescribed to the female gender and therefore, a female leader should be perceived as more likable than a male leader.
However, the same communal qualities that benefit a moderately assertive female leader in terms of social outcomes, will not benefit her for instrumental outcomes, because these communal qualities are generally not congruent with the prescribed agentic qualities of being able to accomplish goals (Heilman & Okimoto, 2007).

Lastly, a female leader who is low in assertiveness should be perceived more favorably for social outcomes than a male leader, because she fits the non-agentic female prescribed stereotype, and has not stepped outside the prescribed communal role. However, for instrumental outcomes, a female leader will be perceived as more ineffective than an ineffective male leader, because she is perceived as lacking in the achievement oriented agentic traits to be an effective leader, and this reinforces the characterization of men as successful leaders (Heilman, 2012). A male leader low in assertiveness may be perceived as ineffective, but will fare better than a female leader because he is prescribed the achievement oriented agentic traits, even though he has not acted on them. Based on the current understanding of assertiveness and gender, the following hypotheses will be tested:

**H4a:** Leader gender moderates the relationship between assertiveness and a leader’s (a) instrumental and (b) social outcomes, such that female leaders will experience less positive perceptions of (a) instrumental and (b) social outcomes than male leaders in the high assertiveness condition.

**H4b:** Leader gender will moderate the relationship between assertiveness and a leader’s (a) instrumental and (b) social outcomes, such that female leaders will experience more positive perceptions of (b) social outcomes than male leaders, and there will be no significant difference for (a) instrumental outcomes in the moderate assertiveness condition.

**H4c:** Leader gender moderates the relationship between assertiveness and a leader’s (a) instrumental and (b) social outcomes, such that female leaders will experience less positive perceptions of (a) instrumental outcomes than male leaders, and that female leaders will have more positive perceptions of (b) social outcomes than male leaders in the low assertiveness condition.
Given that minimal attention has been paid to leader personality and leader outcomes in the LMX literature, it is unknown the degree to which perceptions of a leader’s interpersonal skills may change depending upon the quality of leader-member relationships and how this in turn affects a leader’s social and instrumental outcomes. However, the relationship of LMX quality with subordinate outcomes previously mentioned may provide clues to how LMX quality will interact with assertiveness and leadership outcomes. For instance, a highly assertive leader may benefit from having a high quality relationship with his or her subordinates in that this high quality exchange will decrease the perception of being despised socially, and increase the perception of being instrumentally effective. On the other hand, the highly assertive leader that has a low quality relationship with subordinates may increase the perception of being unlikable and socially insufferable, and also decrease the perception that he or she is instrumentally effective. This gap in our understanding of how LMX quality and assertiveness interact is addressed with the following hypotheses:

H5a: LMX quality moderates the relationship between assertiveness and a leader’s (a) instrumental outcomes such that low quality LMX will decrease a positive perception and increase a negative perception of assertiveness on instrumental outcomes, and high quality LMX will increase a positive perception and decrease a negative perception of assertiveness on instrumental outcomes.

H5b: LMX quality moderates the relationship between assertiveness and a leader’s (b) social outcomes, such that low quality LMX will decrease a positive perception and increase a negative perception of assertiveness on social outcomes, and high quality LMX will increase a positive perception and decrease a negative perception of assertiveness on social outcomes.

Three-way Interaction: Assertiveness, Gender and LMX Quality

Theoretical model. The theoretical model in Figure 3.1 has more than one moderating variable for assertiveness and leadership effectiveness, hence the opportunity to test for moderated moderation, or a three-way interaction hypotheses. For example, it
could be that leader gender influences the effect of assertiveness on leadership outcomes but is conditional on LMX quality. A separate conceptual model is depicted in Figure 3.2 as the previous model (see Figure 3.1) is for multiple moderation, which constrains the interaction between assertiveness and gender to be independent of LMX quality. In the moderated moderation model (see Figure 3.2) it is proposed that the interaction between assertiveness and gender will be dependent on LMX quality. A three-way interaction is proposed based on the assumption that the moderation hypotheses for LMX and gender are supported. For instance, if female leaders were perceived as having less positive social and instrumental outcomes than male leaders in the high assertiveness condition as hypothesized in H4a, and the high quality LMX condition increased perceptions of leader social and instrumental outcomes in the high assertiveness condition as hypothesized in H5(a)(b), it stands to reason that female leaders in high quality exchanges with their subordinates, may counteract the less positive perception of high assertiveness. This could also be the case for male leaders that have high quality exchanges with their subordinates. Male leaders may be able to get away with more highly assertive behavior leading to more positive instrumental outcomes while still maintaining positive social outcomes.

Figure 3.2 Moderated moderation model.
**Conjectures.** In view of the paucity of empirical research integrating the three constructs—assertiveness, LMX, and gender—no definite three-way interaction hypotheses are proposed. However, some conjectures for all three conditions of assertiveness and two conditions of LMX quality are as follows:

*Proposition 1:* Leader gender and LMX quality will affect the relationship between levels of assertiveness and leader outcomes such that female leaders in the high quality LMX condition will have more positive social outcomes than the male leaders in the high quality LMX condition, but less positive instrumental outcomes than the male leaders in the high quality LMX condition.

*Proposition 2:* Leader gender and LMX quality will affect the relationship between levels of assertiveness and leader outcomes such that female leaders in the low quality LMX conditions will have less positive instrumental and social outcomes than the male leader in the low quality LMX conditions.

Overall, it is hypothesized that the moderate assertiveness condition will be the most effective for a leader’s social and instrumental outcomes. Gender and LMX are hypothesized to increase or decrease the relationship of assertiveness on leader outcomes in each of the three assertiveness conditions being tested. For example, male leaders are expected to fare better in the high and low assertiveness conditions compared to female leaders, but female leaders will fare better in the moderate assertiveness condition compared to male leaders. As well, high LMX quality is expected to be the most effective for all three levels of assertiveness on social and instrumental outcomes. If the moderation hypotheses are supported and significant interactions found for both gender and LMX, a three-way interaction will be tested for LMX moderating the moderation of gender and assertiveness on leader social and instrumental outcomes. The next section, Chapter 4, discusses the methodology employed to test the developed hypotheses.
Chapter 4: Methodology

This study commenced in two phases. The first phase was to pretest the experimental vignettes to ensure the operationalized levels of assertiveness and LMX quality were capturing the intended properties being tested in the main study. The pilot studies were short online scenarios presented to participants. The second phase consisted of the main study and was a 3 X 2 X 2 between-participants experimental factorial design to test the effect of independent variables of (assertiveness, gender, and LMX) on leadership outcomes. The main study was administered online. Both studies are described below. In the first section there is a description of the sample, procedures, measures and results for the pilot study. The second section contains an overview of the sample, the experimental design, procedure, measures, and the analytic strategy employed for the main study.

Pilot Study

The main purpose of the pilot studies was to pretest the operationalized levels of assertiveness and LMX quality that were developed from the assertiveness and LMX literature. Gender was not tested in the pilot studies.

Preliminary testing. An initial pretest of the vignettes for the assertiveness conditions was conducted by approaching 15 people known to the researcher. Each participant was given one scenario (high; moderate; low) on an index card and asked to place the card on another sheet of paper that listed the levels of assertiveness as well as “undecided” and “confused”. Preliminary results suggested that the low assertiveness condition was capturing the intended operational definition. The moderate and high assertiveness scenarios were slightly distinguishable from one another, but not to a large
extent. Based on these preliminary findings, the vignettes were adjusted based on informal feedback and a re-examination of the literature to make sure the vignettes were capturing the theoretical construct of assertiveness, as well as how people intuitively perceived assertiveness. The adjusted vignettes were then tested in the pilot study. This additional feedback also had the added benefit of keeping the vignettes as realistic as possible. In the pre-pilot stage we also made sure the word count of each vignette for assertiveness remained relatively close; high 95; moderate 96; and low 93.

**Sample and procedure**

One pilot study was conducted to test the assertiveness manipulations, and another for the LMX manipulations. Written vignettes for assertiveness and LMX quality were presented separately to participants online. One hundred and fifty U.S. adults completed the experimental task in exchange for payment through Amazon.com’s Mechanical Turk. Mechanical Turk is a crowdsourcing platform used to recruit workers, or in this case study participants, and is gaining in popularity with many researchers (Chandler, Mueller, Paolacci, 2014). Findings from Mechanical Turk data are now being published in top journals for the leadership area (Berg, Barry, & Chandler, 2012; Nichols & Cottrell (2014); Paolacci, Chandler, & Ipeirotis, 2010). Mechanical Turk offers the advantage of sampling working adults from a wide range of organizations in a very short time period, thus improving the generalizability of the experimental findings.

For the pilot studies, the geographical region of the United States was used as a criterion for participating in the online task. The quota was set at ninety participants for the assertiveness pilot study ensuring that we had 30 participants per cell (between-participant design with 3 levels of assertiveness). Thirty participants per cell was chosen
because this number is a general rule of thumb when wanting to maintain adequate power while detecting differences between groups (Cohen, 1988). Sixty-seven per cent of the participants were male and the majority (80%) were Caucasian, 7% were Chinese, 6% Mexican, and 3% African American. Almost half (47%) of the participants were between the ages of 25-34; 18% between the ages of 18-24; and 16% between the ages of 35-44. 84% were employed, and of those employed 34% were employed for 1-4 years; 15% for 5-9 years; and 14% for 15-19 years.

For the LMX pilot study the quota was set at 60 (between-participant design with 2 levels of LMX; 30 per cell). Fifty-six per cent of the participants were male and 50% of participants were between the ages of 25-34; 23% between 18-24; and 16% between 35-44. Eighty four per cent were Caucasian; 6% African American; 5% Korean and 3% were Chinese. All of the participants were employed and 30% of those for 1-4 years; 25% for 5-9 years; 15% for 10-14 years; 11% for 15-19 years.

**Experimental vignette methodology.** This methodology was chosen because the goal of the study was to test for moderation effects and to establish causality where an inference between assertiveness and leadership effectiveness had been established. The opportunity to carefully craft a scenario that reflects the construct being tested gives the researcher greater control over causal ordering and elimination of competing variables, and any difference between participants should be directly attributable to the objective value of the situation described (Aguinis & Bradley, 2014). Paper people scenarios are one of the more common methods used in leadership research (Aguinis & Bradley, 2014). Practicality and efficiency in getting the experiment out to participants in their natural environment, as suggested by Aguinis and Bradley (2014), also factored into the
chosen vignette methodology. Vignette research relies on the ability of participants to relate to the hypothetical situation presented to them. A sample representative of the workforce means that participants have likely encountered both scenarios presented in the vignettes, and thus have sufficient knowledge to accurately respond to the given situation and reduce artificial responses while increasing the observed effects (Aguinis & Bradley, 2014). The between-subjects design was used in an effort to reduce survey fatigue, yet have a sufficient sample size for comparisons across participants (Atzmüller & Steiner, 2010).

After agreeing to the informed consent, participants were given a short introduction that reiterated the first paragraph of the consent letter. From here they were randomly assigned to one of the three manipulated conditions representing the three levels of assertiveness being tested (high; moderate; low). After reading the vignette, participants were asked a series of questions about assertiveness, aggressiveness, dominance, realism of the vignette, improvements for the survey and demographics. A flow chart in Appendix B describes the flow of participants through the pretests for assertiveness levels and LMX quality.

Measures

Table 4.1 summarizes the measures used in both pretests. The table outlines the following information for each measure: author(s), number of items, number and type of scale anchor points, and the reliability coefficient reported in previous studies.

Assertiveness. The assertiveness measures were chosen because they have been used in recent studies identifying the non-linear effect of assertiveness in which the power-oriented mode of assertiveness was the focus (Ames & Flynn, 2007). In the
present study, the manipulated independent variable of assertiveness also emphasized this mode; being firm in pursuing goals and pressing to get one's own point made (Ames & Flynn, 2007). Therefore, the chosen measures of assertiveness were aligned with the dimensions represented in the manipulated conditions. A sample item of the three modified measures from the Thomas-Kilmann Conflict Mode instrument is; “Leader X sacrifices his/her own wishes for the wishes of other people,” with a 9-point bi-polar scale (1 = sacrificing; 9 = inflexible). One modified question from the Kipnis assertiveness scale was also included in the present study because it represented the influence dimension of assertiveness; “Leader X simply ordered them to do what was stated in the policy”, a 9-point scale (1 = strongly disagree; 9 = strongly agree) (Kipnis, Schmidt, & Wilkinson, 1980; Thomas & Kilmann, 1978). A fifth item was adapted from the Ames (2009) study to measure the assertiveness of the scenarios used in that Study; “On a scale from 1 to 9 how would you rate leader X's level of assertiveness”, a 9-point bipolar scale (1 = not at all assertive; 9 = extremely assertive) was used. The wording of the items was changed to reflect the context of the vignettes; Appendix C lists the modified items for both pretests.

**LMX quality.** The experimental vignettes for high and low quality LMX were measured using three modified items from the LMX-7 scale (Graen & Uhl-Bien, 1995). The LMX-7 scale, when compared to other LMX measures, is the most reliable ($\alpha=.83$) indicating acceptable internal consistency, and is recommended when assessing overall exchange quality (Gerstner & Day, 1997; Maslyn & Uhl-Bien, 2001). Items were measured on a 4-point scale: “How would you characterize the working relationship between the director and subordinates?” (1 = ineffective; 4 = effective), “Regardless of
how much formal authority the director has built into his/her position, what are the chances that he or she would personally be inclined to use power to help subordinates solve problems in their work?” (1 = no chance; 2 = might or might not; 3 = probably would; 4 = certainly would) and, “How well do you feel the director understands the problems and needs of subordinates?” (1 = not at all; 2 = some but not enough; 3 = well enough; 4 = completely).

**Dominance and aggression.** To further distinguish the levels of assertiveness and avoid possible confounding effects in the vignettes, measures for aggression and dominance were added as control variables. Two modified items from the Social Dominance scale developed by Sidanius, Levin, Liu, and Pratto (2000) were used with a 7-point scale (1 = strongly disagree; 7 = strongly agree). A sample item is “Based on the scenario you just read, do you think leader X feels that it’s probably a good thing that certain groups are at the top and other groups are at the bottom?” Three modified items from the Buss-Durkee Hostility Inventory were used to control for aggression (Buss & Durkee, 1957). A sample item is “Based on the scenario you just read, do you feel it would be characteristic of leader X to fly off the handle for no good reason?” with a 5-point scale (1 = extremely uncharacteristic; 5 = extremely characteristic).

**Demographic and other control variables.** Participant demographic questions included age, gender, ethnic heritage, and employment status for both pretests. There was an open-ended question asking for any general feedback on the surveys. Participants were also asked “how realistic did you find the scenario?” a 9-point scale (1 = not very realistic; 9 = to very realistic). This question is based on the recent recommendations by Aguinis and Bradley (2014) for experimental vignette methodology (EVM), and is
reflective of the need to make experimental stimuli more realistic with the hope of increasing external validity.

### Table 4.1

**Pretest Vignette Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Author(s)</th>
<th># of Items</th>
<th># of Points</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict-Mode Instrument</td>
<td>Adapted from Thomas &amp; Kilmann, 1978</td>
<td>3</td>
<td>9; indifferent to very concerned (reverse-coded); avoids to confronts; sacrificing to inflexible</td>
<td>.60</td>
</tr>
<tr>
<td>Influence Tactics</td>
<td>Adapted from Kipnis, Schmidt, &amp; Wilkinson, 1980</td>
<td>1</td>
<td>9; strongly disagree to strongly agree</td>
<td>.78</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>Adapted from Ames, 2009</td>
<td>1</td>
<td>9; not at all assertive to extremely assertive</td>
<td>SIM</td>
</tr>
<tr>
<td>Aggressiveness Questionnaire</td>
<td>Adapted from Buss &amp; Perry, 1992</td>
<td>3</td>
<td>5; extremely uncharacteristic to extremely characteristic</td>
<td>.85 (physical aggression); .72 (verbal aggression); .83 (anger)</td>
</tr>
<tr>
<td>Social Dominance Orientation; SDO₆</td>
<td>Adapted from Sidanius, Levin, Liu &amp; Pratto, 2000</td>
<td>2</td>
<td>7; strongly disagree to strongly agree</td>
<td>.85</td>
</tr>
<tr>
<td>LMX-7</td>
<td>Adapted from Graen &amp; Uhl-Bien, 1995</td>
<td>3</td>
<td>4; very ineffective to very effective; no chance to certainly would; not at all to completely</td>
<td>.83 (reported by Gerstner &amp; Day, 1997; Maslyn &amp; Uhl-Bien, 2001)</td>
</tr>
<tr>
<td>Realism</td>
<td>Adapted from Aguinis &amp; Bradley, 2014</td>
<td>1</td>
<td>9; not very realistic to very realistic</td>
<td>SIM</td>
</tr>
<tr>
<td>Demographics</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note. SIM = single-item measure.*

**Analytic strategy**

An analysis of variance (ANOVA) was conducted separately for each of the vignettes to assess whether or not they were capturing the intended levels of assertiveness and LMX. Follow-up Bonferroni’s tests were conducted to investigate the direction of the differences between levels of assertiveness, and provided flexibility for pairwise
Comparisons. Correlations and reliability (Cronbach’s alpha) coefficients for each scale were also computed and the realism of the vignettes was computed for each level of assertiveness. The next two sections discuss the results for the assertiveness and LMX pretests.

Results

Assertiveness. Four of the five items for assertiveness were combined to form a scale with a reliability of $\alpha = .63$. The first item “Leader X feels that differences are not worth worrying about” was removed to increase reliability. The aggression items were combined and one item, “Based on the scenario you just read, do you feel that leader X can’t help getting into arguments when people disagree with him/her?” was removed to form a scale with a reliability of $\alpha = .76$. The two items for dominance were combined to form a scale of $\alpha = .73$.

As anticipated, there were significant differences among the three levels of assertiveness. Means (with standard deviations in parentheses) for low, moderate, and high assertiveness were 3.46 ($1.52$), 4.41 ($1.12$), and 6.08 ($1.31$) respectively. The analysis of variance (ANOVA) verified that there was a main effect for assertiveness, $F(2, 87) = 28.72, p < .001, \eta^2 .39$. Participants in the high assertiveness condition rated the target as significantly higher in aggression ($M = 2.26 (1.04)$), than the moderate ($M = 1.62 (.77)$) and low assertiveness conditions ($M = 1.76 (.78)$). Follow-up Bonferroni’s tests indicated that participants in the low assertiveness condition rated the target as significantly higher in dominance ($M = 3.22 (1.37)$) than the moderate condition ($M = 2.79 (1.20)$), and higher in dominance in the high assertiveness condition ($M = 4.33 (1.69)$).
Pearson’s correlation coefficients were calculated for assertiveness, aggression and dominance. Assertiveness and aggression significantly \((p < .01)\) correlated at .51; aggression significantly \((p < .01)\) correlated with dominance .43 and dominance was significantly \((p < .01)\) correlated with assertiveness .51.

**Summary of results.** As anticipated the three levels of assertiveness had meaningful differences for participants and could be distinguished as low, moderate and high assertiveness. Although the variables were inter-correlated, not much overlapping variance was present, thereby suggesting that assertiveness, aggression, and dominance were distinguishable as different constructs. As expected aggression was not a significant factor in the low and moderate assertiveness conditions. It was however, a significant factor in the high assertiveness condition. This was not surprising given the blurred lines between the constructs of assertiveness and aggression, especially at the higher end of the continuum. Although aggression and dominance were factors in the high assertiveness condition, aggression accounted for less than 10% of the variance, while assertiveness explained 39% of the variance. Interestingly, dominance accounted for 17% of variance for levels of assertiveness. Mean scores for dominance in the low assertiveness condition were higher than the moderate condition. This result may be because the moderate assertiveness condition represented the ability to compromise and participants considered this a non-dominant characteristic for a leader.

Overall, the results suggested that the vignettes did not need to be altered to limit the perception of aggression or dominance in the high assertiveness condition, and that these variables would not have to be controlled for in the main study.
**LMX.** The three items for LMX were combined to form a scale with a reliability of $\alpha = .86$. The mean (with standard deviations in parentheses) for the high quality LMX condition was $3.31 ( .48)$ and $1.94 ( .56)$ for the low quality condition. ANOVA analysis indicated significant differences between the high and low quality conditions, $F(1,58) = 100.14, p < .001, \eta^2 .63$. Based on these results, no additional changes were made to the LMX vignettes.

**Main Study**

**Sample**

Five hundred and forty-nine U.S. adults completed the experimental task online, in their own environment, and in exchange for payment through Amazon.com’s Mechanical Turk. Of these 549, 70 did not complete the online task, and 10 were eliminated due to duplicate responses, for an overall response rate of 85%. All of the remaining 469 participants answered the attention check question correctly. Fifty-six per cent of the participants were male and 50% were between the ages of 25-34; 22% between 35-44; 13% between 18-24; 7% between 45-54 and 6% between 55-64. Seventy-nine per cent were Caucasian; 6% were African American; 3% were Chinese and 2% were Filipino. Almost all the participants were employed (95%) and of those employed 81 percent full-time. Ten per cent of those employed were in retail, 8% in the health care sector, 7% in finance and insurance, 6% in information services and 5% in arts.

---

2 IP addresses that were the same were removed from the data as a cautionary measure. Duplicate IP addresses can indicate that the online task was done multiple times by the same respondent. However, it is also possible that these respondents were different members of the same family with separate Mechanical Turk accounts. The number of duplicate responses was low enough that it was felt removing them would not threaten the distribution of participants across conditions (Chandler, Mueller, Paolacci, 2014).
entertainment, recreation, hotel, and food services. The remaining participants were spread across a wide variety of sectors.

**Experimental design**

A 3 X 2 X 2 factorial design with the independent variables being three levels of assertiveness (high; moderate; low), two levels of gender (male; female), and two levels of Leader-Member Exchange (LMX) quality (low; high) being rated. Participants were randomly assigned to one of 12 conditions. The distribution of participants across conditions can be seen in Table 4.2.

**Table 4.2**

<table>
<thead>
<tr>
<th>Distribution of Participants Across Conditions</th>
<th>LMX Low</th>
<th>LMX High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Low Assertiveness</td>
<td>42</td>
<td>38</td>
</tr>
<tr>
<td>Moderate Assertiveness</td>
<td>39</td>
<td>38</td>
</tr>
<tr>
<td>High Assertiveness</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>121</td>
<td>115</td>
</tr>
</tbody>
</table>

**Procedure.** In a consent form, each participant was notified that they would be reading a hypothetical situation about leadership effectiveness and interpersonal traits in the workplace. They were also informed of the voluntary nature of their participation, and their right to skip questions or end their participation at any time. Once participants agreed to complete the online task, they were presented with a job description. All participants received the same job description of a hypothetical gender-neutral leader called Chris. Because a between-subjects design was chosen, the position description was developed to give participants as much contextual background as possible, as recommended by Aguinis and Bradley (2014). Participants were informed of the job title
(Director), length of tenure (2 years), the number of employees indirectly reporting to the
director (75), number of direct reports (5), and major job responsibilities for Chris. Based
on feedback from the pilot study, the job description was kept at the top of the screen for
all manipulated conditions for referral purposes. Once participants were randomized to
the 12 conditions, they were presented with information about a meeting in which Chris
was presenting a policy change from his (her) superiors to his (her) subordinates. The
first two sentences of the vignette were the same for all conditions with the exception of
pronoun changes to manipulate gender (male, coded 0; and female, coded 1). The fourth
and fifth sentences manipulated assertiveness (high; moderate; low), as well as pronoun
changes for the manipulation of gender. Appendix E depicts the flow of participants
through the main study.

After participants read the meeting vignette, they were asked three questions
about assertiveness, and asked to respond to two open-ended questions about Chris’s
strengths and weaknesses (these were optional). The participants then read one of two
manipulated vignettes for LMX quality (high; low). The vignette for LMX was designed
around employee feedback about the same hypothetical leader used in the assertiveness
vignette. Employee feedback was selected as the source of information about Chris
because subordinates play a fundamental role in the exchange relationship, and for
plausibility, an employee would have experiences relevant to the quality of that
exchange. Each condition (high quality; low quality) had the same number (5) of
statements from subordinates. Participants then answered three questions about how
Chris treats employees. In the final portion of the experiment, participants were asked to
evaluate the social and instrumental outcomes of Chris on four dimensions: managing
conflict, team effectiveness, social influence, and overall leadership effectiveness. Participants were then debriefed and the purpose of the study explained. The three assertiveness vignettes, the two LMX vignettes, and measures for the main study are listed in Appendix D.

**Independent Variable Manipulations**

**Assertiveness.** The assertiveness vignettes that were pretested in the pilot study were unaltered based on the pilot study results. All of the vignettes followed the same form. Each assertiveness condition (high, coded 3; moderate, coded 2; low, coded 1) represented how hard a leader would push to accomplish a task for his (her) superiors and yet remain likable by employees. The meeting vignette reflected a situation for the leader where some degree of assertiveness would be needed to accomplish what the leader believed was the right decision and be relevant and meaningful to the working adult sample: “Chris is asked to take a proposed policy change from his (her) superiors to his (her) subordinates. This policy change is important to the future of the company and Chris believes the policy is in the best interest of the organization.” These two sentences appeared in all experimental conditions. The third sentence was manipulated by changing how the leader presented the policy to the subordinates. For example, the moderate assertiveness condition stated: “At a meeting with subordinates, he (she) welcomes everyone’s opinion on the proposal and explains the importance of the policy.” The fourth sentence was also manipulated by changing the leader’s response to employee discussion about the policy. An example for the low assertiveness condition was “A discussion about the proposal begins and, as in previous meetings, Chris remains silent while several people express opposing viewpoints. She (he) continues to hold back and
say nothing, hoping the group will eventually support the proposed policy.” The statement “….as in previous meetings” was also in all experimental conditions to emphasize a pattern of behavior for the leader. The meeting vignette also allowed the participants to see how the leader managed conflict in the form of possible opposition to the policy; how the leader influenced employees, and how the leader’s assertiveness affected the team he (she) was meeting with.

**Leader-member exchange.** The main constructs of LMX were manipulated in the form of quotes from subordinates. For example, in the high quality condition mutual trust was represented as “I have a high degree of trust and respect for Chris,” and “I feel like I get projects that are beyond my regular duties because Chris trusts that I will do a good job.” Mutual trust in the low quality condition was represented as “Chris doesn't ask me to take on extra duties and that's fine with me,” and “I do what the boss tells me as long as it's within my job description.” Loyalty, influence, and perceived similar values were also emphasized in the hypothetical feedback (Dunesch & Liden, 1986). The two-year length of employment for the director was specifically chosen because it represents a stage of LMX where relationships have already been established (Graen & Uhl-Bien, 1995).

**Dependent measures**

Similar to Table 4.1, Table 4.3 outlines the measures used in the main study. There were two primary dependent variables, social and instrumental leadership outcomes. Of these two aspects of leadership, three dimensions of leadership were measured. Social outcomes were measured with the dimensions of managing conflict, team effectiveness and the single item of social effectiveness. Instrumental outcomes
were measured with social influence and the single item of instrumental effectiveness.

Overall leadership effectiveness and anticipated effectiveness were also measured. Scales were constructed for each measure.

Table 4.3

<table>
<thead>
<tr>
<th>Measure</th>
<th>Author(s)</th>
<th># of Items</th>
<th># of Points</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertiveness</td>
<td>Adapted from Thomas &amp; Kilmann, 1978; Ames, 2009, pretests</td>
<td>3</td>
<td>7; strongly disagree to strongly agree</td>
<td>.60 (reported by Thomas &amp; Kilmann, 1978)</td>
</tr>
<tr>
<td>LMX Manipulation</td>
<td>Adapted from Graen &amp; Uhl-Bien, 1995</td>
<td>3</td>
<td>4; very ineffective to very effective; no chance to certainly would; not at all to completely</td>
<td>.83 (reported by Gerstner &amp; Day, 1997; Maslyn &amp; Uhl-Bien, 2001)</td>
</tr>
<tr>
<td>Leadership Effectiveness</td>
<td>Adapted from Ames &amp; Flynn, 2007</td>
<td>15</td>
<td>7; never to always</td>
<td>.64, .68, .71, .89 (reported by Ames &amp; Flynn, 2007)</td>
</tr>
<tr>
<td>Anticipated Leadership Effectiveness</td>
<td>Adapted from Ames &amp; Flynn, 2007</td>
<td>3</td>
<td>7; strongly disagree to strongly agree</td>
<td>.94 (reported by Ames &amp; Flynn, 2007)</td>
</tr>
<tr>
<td>Social Effectiveness</td>
<td>Adapted from Ames &amp; Flynn, 2007</td>
<td>1</td>
<td>7; strongly disagree to strongly agree</td>
<td>--</td>
</tr>
<tr>
<td>Instrumental Effectiveness</td>
<td>Adapted from Ames &amp; Flynn, 2007</td>
<td>1</td>
<td>7; strongly disagree to strongly agree</td>
<td>--</td>
</tr>
<tr>
<td>Realism</td>
<td>Adapted from Aguinis &amp; Bradley, 2014</td>
<td>1</td>
<td>7; not very realistic to very realistic</td>
<td>--</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>Adapted from Crowne &amp; Marlow, 1960</td>
<td>6</td>
<td>T/F</td>
<td>.79 (Cowne &amp; Marlowe, 1960; reported by Ramanaiah, Schill, &amp; Leung, 1977; Fischer &amp; Fick, 1993)</td>
</tr>
</tbody>
</table>

Demographics          | --                                 | 7          | --          | --            |

Leadership effectiveness. The leadership effectiveness scale used in the Ames and Flynn (2007) study was modified and used to measure the dependent variables of social, instrumental, and overall outcomes. The scale used in the Ames and Flynn (2007) study consisted of four constructs believed to represent four domains of leadership:
motivation, social influence, managing conflict, and working with teams. Only three of the four subscales were used in this current study because the hypothetical situation used in the vignettes better reflected social influence, managing conflict, and working with teams. The vignette was not designed around the motivation dimension of leadership but around what situation would best display the leader’s social and instrumental effectiveness. The motivation items could have led to artificial responses on these items if participants could not accurately assess the scenario. Therefore, only three (modified) of the four subscales (Social Influence; Managing Conflict; Working in Teams) were used. A sample item for each dimension was; “He (she) is able to build effective working relationship with others who have different opinions or interests,” “He (she) considers the viewpoints of all parties involved in a conflict,” “Chris takes initiative in contributing to the team’s efforts,” respectively. Each subscale had five items measured on a 7-point scale (1 = never; 7 = always). There was one item for overall social effectiveness; “Based on the scenario you just read, does Chris build strong, positive relationships and trust with subordinates?” (1 = strongly disagree; 7 = strongly agree), and one item for overall instrumental effectiveness: “Based on the scenario you just read, Chris is able to get his (her) way and accomplish his (her) work and performance goals” (1 = strongly disagree; 7 = strongly agree).

Of the 15 subscale items, four items from the managing conflict ratings were combined to form a scale with a reliability of α = .74. Four items from the social influence ratings were combined to form a scale with a reliability of α = .80. All five items from the team effectiveness ratings were combined to form a scale with a reliability of α = .81.
Anticipated leadership effectiveness. There were three modified questions on overall leadership effectiveness and anticipated effectiveness from the Ames and Flynn (2007) study; “Based on the scenario you just read, overall Chris is an effective leader” (1 = strongly disagree; 7 = strongly agree), “If I had the chance, I would definitely want to have Chris as my leader,” and “Looking ahead, I expect she will experience great success as a leader.” All three items were combined to form a scale with a reliability of $\alpha = .96$. Two optional open-ended questions were used; “Please briefly describe Chris’s strengths as a leader” and “Please briefly describe Chris’s weaknesses as a leader.” Correlations among the dependent variables appear in Table 4.4.

Table 4.4

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Managing Conflict</td>
<td>4.37</td>
<td>1.34</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Team Effectiveness</td>
<td>4.80</td>
<td>1.25</td>
<td>.79**</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Social Effectiveness</td>
<td>4.30</td>
<td>2.06</td>
<td>.76**</td>
<td>.71**</td>
<td>SIM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social Influence</td>
<td>4.26</td>
<td>1.36</td>
<td>.63**</td>
<td>.60**</td>
<td>.75**</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Instrumental Effectiveness</td>
<td>4.71</td>
<td>1.49</td>
<td>.40**</td>
<td>.39**</td>
<td>.60**</td>
<td>.73**</td>
<td>SIM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Anticipated Leadership</td>
<td>4.27</td>
<td>1.81</td>
<td>.75**</td>
<td>.69**</td>
<td>.88**</td>
<td>.82**</td>
<td>.67**</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td>7. Social Desirability</td>
<td>1.71</td>
<td>.14</td>
<td>.02</td>
<td>.10*</td>
<td>.02</td>
<td>.01</td>
<td>.07</td>
<td>.00</td>
<td>--</td>
</tr>
</tbody>
</table>

Note. $N = 469$. Coefficients Alpha are displayed on the diagonal in bold. SIM = single item measure.

**$p < .01.$

* $p < .05.$
Demographic and control variables

In order to control for any aspect of the experiment that might be affected by social desirability, a social desirability measure was used. Six items were adapted from the widely used Crowne and Marlow’s (1960) scale. A sample item is “Before voting I thoroughly investigate the qualifications of all the candidates” (true; false). The realism question that was used in the pretests was also included in the main study with a modification to the number of scale points. Instead of a 9-point scale, a 7-point scale (1 = not very realistic; 7 = very realistic) was used. This was done to ensure that most of the measures had similar scale points. It was felt that this change would have little impact on the measurement. There was also an open-ended question asking for any general feedback on the survey. Also included were demographic questions for gender, age, ethnicity, and employment status, years of employment and type of employment. The demographic questions are listed in Appendix D.

Analytic strategy

An analysis of variance (ANOVA) was used to test the manipulations for assertiveness and LMX quality. A multivariate analysis was conducted to test for main effects and significant interaction effects for the following correlated dependent measures: managing conflict, social influence, team effectiveness, social effectiveness, instrumental effectiveness, and overall leadership. The decision was made to test the three dimensions of leadership separately because of recent recommendations that personality dimensions should align with relevant performance outcomes; more narrowly defined personality predictors should be matched with narrowly defined outcome variables in order to identify more meaningful personality—performance relationships.
(Kaiser & Hogan, 2011). Testing the dimensions separately allowed for better identification of assertiveness as a predictor of leader outcomes, thus strengthening the causal relationship. Univariate ANOVAs were conducted on significant effects found in the multivariate analysis and Bonferroni’s tests were used for multiple comparisons between conditions for each of the significant ANOVA results. These post hoc analyses clarified where and in what direction the significant effects existed. Bonferroni’s test was selected because only a select set of means was being compared. Bonferroni’s test could not be conducted for LMX quality because there were only two levels: high and low. Social desirability was not controlled for due to non-significant correlations with the dependent measures (see Table 4.4). Preliminary analyses were performed for participant gender and participant age as independent variables, but no significant effects were found, and therefore these demographic variables were not controlled for in the main analysis. Realism of the vignettes was also assessed.

In summary, Chapter 4 provided an overview of the methodology used in the pilot study and the main study. Having reviewed the various steps of the data analysis, analysis results will be discussed in Chapter 5.
Chapter 5: Results

The present chapter discusses the results of the data analysis and is divided into two sections. Section one addresses the results of the manipulation checks for assertiveness and LMX quality. The second section reviews the results of hypotheses testing for the independent variable manipulations on the dependent variables.

Manipulation Checks

To check on the manipulation of assertiveness, three items measuring assertiveness were used from the pretests. However, reliability for the scale was not sufficient and the decision was made to reduce the manipulation check to one item that best captured assertiveness; “On a 7-point scale, how would you rate Chris’s assertiveness.” An analysis of variance (ANOVA) verified that the assertiveness manipulation was successful. A main effect for assertiveness was found, \( F(2, 466) = 176.07, p < .001, \eta^2 = .43 \). Follow-up Bonferroni’s tests indicated that participants in the low assertiveness condition rated the target significantly \( (p < .01) \) lower \((M = 3.03 (1.44))\) than the moderate assertiveness condition \((M = 5.03 (1.09))\), and the moderate assertiveness condition was significantly \( (p < .01) \) lower than the high assertiveness condition \((M = 5.60 (1.27))\).

To check on the manipulation of LMX quality, a measure was created from three items used in the pretests. A sample item: “Based on the scenario you just read, how would you characterize the working relationship between Chris, and his (her) subordinates?” was measured on a 4-point scale \((1 = \text{very ineffective}; \ 4 = \text{very effective})\). The three items combined to form a scale with a reliability of \( \alpha = .86 \). An ANOVA analyses verified that the LMX quality manipulation was successful. There was a main
effect for LMX quality, $F(1, 467) = 747.32, p < .001, \eta^2 = .61$. Participants in the LMX high condition rated the target as significantly ($p < .01$) higher ($M = 3.27 (.53)$) than the low quality LMX condition ($M = 1.97 (.49)$).

The overall mean for the realism of the vignettes was $M = 5.71 (SD = 1.10)$ and the median at 6.0 out of a 7-point scale, indicating the majority of participants felt the vignettes represented a real life workplace situation.

**Dependent measures**

A multivariate analysis of variance was conducted to test for the main effects of the manipulated variable of assertiveness on both social and instrumental dependent variables. The multiple $F$ was significant for assertiveness on all dependent measures, Wilks’ Lambda = .563, $F(12, 920) = 25.47, p < .001, \eta^2 .24$, except for social effectiveness, which was approaching statistical significance $p < .05$. As a result of the strong trend indicated ($p = .06$) for social effectiveness and the directional consistency of the means: follow-up Bonferroni tests were performed for this variable. Follow-up univariate ANOVAs were conducted for each of the significant dependent measures. Multivariate analysis results are presented in Table 5.1, and means and standard deviations for the main effects are listed in Table 5.2.
Table 5.1

**MANOVA Analysis for Main Effects of Assertiveness**

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing Conflict</td>
<td>93.83</td>
<td>2</td>
<td>46.91</td>
<td>28.96**</td>
<td>.11</td>
</tr>
<tr>
<td>Team Effectiveness</td>
<td>45.72</td>
<td>2</td>
<td>22.86</td>
<td>15.51**</td>
<td>.06</td>
</tr>
<tr>
<td>Social Effectiveness</td>
<td>23.07</td>
<td>2</td>
<td>11.53</td>
<td>2.72</td>
<td>.01</td>
</tr>
<tr>
<td>Instrumental Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>109.47</td>
<td>2</td>
<td>54.73</td>
<td>33.36**</td>
<td>.12</td>
</tr>
<tr>
<td>Instrumental Effectiveness</td>
<td>151.34</td>
<td>2</td>
<td>75.67</td>
<td>39.38**</td>
<td>.14</td>
</tr>
<tr>
<td>Anticipated Leadership</td>
<td>80.34</td>
<td>2</td>
<td>40.17</td>
<td>12.73**</td>
<td>.05</td>
</tr>
</tbody>
</table>

*Note. N = 469.*

*p<.05, **p<.001.

**Social influence.** There was a significant main effect of assertiveness on social influence, $F(2, 466) = 33.36, < p .001, \eta^2 .12$. A follow-up analysis of variance (ANOVA) with Bonferroni test revealed that low assertiveness was significantly lower than the moderate and high assertiveness conditions in terms of social influence, but there was no significant difference between moderate and high assertiveness conditions.

**Team effectiveness.** There was a significant main effect of assertiveness on team effectiveness, $F(2, 466) = 15.51, p < .001, \eta^2 .06$. Follow-up Bonferroni’s tests revealed that both the low and high assertiveness conditions were significantly lower than the moderate assertiveness condition for team effectiveness.
Table 5.2

Means and Standard Deviation for Leadership Outcomes by Assertiveness Conditions

<table>
<thead>
<tr>
<th>Leadership Outcomes</th>
<th>Low Assertiveness mean (standard deviation)</th>
<th>Moderate Assertiveness mean (standard deviation)</th>
<th>High Assertiveness mean (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Managing Conflict</td>
<td>4.31 (1.04)</td>
<td>4.94 (1.23)</td>
<td>3.84 (1.50)</td>
</tr>
<tr>
<td>2. Team Effectiveness</td>
<td>4.71 (1.16)</td>
<td>5.21 (1.18)</td>
<td>4.46 (1.29)</td>
</tr>
<tr>
<td>3. Social Effectiveness</td>
<td>4.09 (2.07)</td>
<td>4.60 (2.01)</td>
<td>4.19 (2.07)</td>
</tr>
<tr>
<td>Instrumental Outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Social Influence</td>
<td>3.59 (1.24)</td>
<td>4.58 (1.28)</td>
<td>4.64 (1.30)</td>
</tr>
<tr>
<td>2. Instrumental Effectiveness</td>
<td>3.94 (1.56)</td>
<td>4.93 (1.40)</td>
<td>5.30 (1.14)</td>
</tr>
<tr>
<td>Anticipated Leadership</td>
<td>3.76 (1.73)</td>
<td>4.76 (1.79)</td>
<td>4.30 (1.79)</td>
</tr>
</tbody>
</table>

Note. The higher the mean, the more favorable the rating. Ratings were done on 7-point scales. N for each cell are listed in Table 4.2.

Managing conflict. There was a significant main effect of assertiveness on managing conflict, $F(2, 466) = 28.96, p < .001, \eta^2 .11$. Bonferroni’s tests revealed that both the low and high assertiveness conditions were significantly lower than the moderate assertiveness condition for managing conflict.

Instrumental and social effectiveness. There was a significant main effect of assertiveness on instrumental effectiveness, $F(2, 466) = 39.96, p < .001, \eta^2 .14$. Follow-up tests revealed that the low assertiveness condition was significantly lower than the moderate assertiveness condition, but that the difference between the moderate and high assertiveness conditions was only approaching statistical significance (.06) $p < .05$. The main effect for assertiveness on the single item measure for social effectiveness did not reach required levels of significance. However, because it was approaching statistical
significance, further testing was done. Bonferroni tests were conducted for intercell contrasts, with the significance level set at \( p < .05 \). The results indicated no significant differences.

**Anticipated leadership effectiveness.** There was a significant main effect of assertiveness on overall leadership effectiveness \( F(2, 466) = 12.73, p < .001, \eta^2 .05 \). Once again follow-up tests revealed that the low assertiveness condition was significantly lower than the moderate assertiveness condition, and the high assertiveness condition was significantly lower than the moderate assertiveness condition.

**Main effects hypotheses**

Hypotheses \( H1a \) and \( H1b \) were supported. The high assertiveness condition was significantly lower than the moderate assertiveness condition for two of the three measures for the dependent variable of social outcomes, thus supporting \( H1a \). Hypothesis \( H1b \) was supported in that the high assertiveness condition was rated higher than the low assertiveness condition on both of the measures for instrumental outcomes. However, the moderate assertiveness condition did not rate significantly higher than the high assertiveness condition. Between-subjects effects demonstrated the similar effects that were found in the Ames and Flynn (2007) study. If a leader moved from being moderately assertive to being highly assertive, there would be a significant cost to his or her social outcomes. Likewise, a leader being moderately assertive would see no significant instrumental benefit to being highly assertive.

The hypotheses \( H2a \) and \( H2b \) were also supported. The moderate assertiveness condition was significantly higher than both the low and high assertiveness conditions on
social outcomes. Further, the moderate assertiveness condition was significantly higher than both the low and high assertiveness conditions for anticipated leadership effectiveness. However, for instrumental outcomes the moderate assertiveness condition and the high assertiveness condition did not have significant differences, meaning that moving from high assertiveness to moderate assertiveness would not see any benefit for instrumental outcomes.

The low assertiveness condition, as hypothesized in $H3a$, was significantly lower than the high and moderate assertiveness conditions for instrumental outcomes, as well as anticipated leadership effectiveness. However, $H3b$ was not supported, as the low assertiveness condition was significantly lower than the moderate condition for social outcomes. This unanticipated result will be explored in the Discussion section.

**Moderation Hypotheses**

**Assertiveness by leader gender interaction.** A 3 X 2 multivariate analysis for Assertiveness X Gender, revealed no significant main effect for the manipulated variable of gender, $F(6, 457) = .72$, ns, or for the two –way interaction effect for leader gender on social, instrumental, or anticipated leadership outcomes.

**Post-hoc analysis.** Several post-hoc analyses were performed with split files for participant gender and participant age. Participant gender was split by male and female and participant age was a median split at 18-44 and 45-65 years and over (coded -1; 1). Both split files were grouped together for further analyses. A multivariate analysis was conducted with assertiveness, target gender, participant gender (split), and the new age variable representing the median split. There was a significant result for female
participants aged 18 to 44, \(F(6,156) = 2.68, p < .05\). Further analysis of variance (ANOVA) indicated no significant differences for any of the dependent measures. Thus, the overall pattern suggested that younger female participants were more sensitive to assertiveness and target gender than the younger male participants, as well as the older male and female participants. However, this pattern was eroded when the individual dependent measures were examined. In order to determine the direction of the significant MANOVA result, the mean differences were examined for each of the dependent measures. The means and standard deviations are displayed in Table 5.3.

### Table 5.3

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Condition</th>
<th>Target Gender</th>
<th>Respondent Gender</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Social Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Managing Conflict</td>
<td>Male</td>
<td>4.80</td>
<td>4.47</td>
<td>4.80</td>
<td>4.60</td>
<td>4.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.12)</td>
<td>(.98)</td>
<td>(1.24)</td>
<td>(.92)</td>
<td>(1.50)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.28</td>
<td>4.44</td>
<td>4.85</td>
<td>5.18</td>
<td>3.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.02)</td>
<td>(1.12)</td>
<td>(1.51)</td>
<td>(1.19)</td>
<td>(1.49)</td>
</tr>
<tr>
<td>2. Team Effectiveness</td>
<td>Male</td>
<td>4.62</td>
<td>4.70</td>
<td>5.10</td>
<td>4.80</td>
<td>4.44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.25)</td>
<td>(1.10)</td>
<td>(1.15)</td>
<td>(.99)</td>
<td>(1.38)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.70</td>
<td>4.95</td>
<td>5.02</td>
<td>5.38</td>
<td>4.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.08)</td>
<td>(1.22)</td>
<td>(1.33)</td>
<td>(1.21)</td>
<td>(1.18)</td>
</tr>
<tr>
<td>3. Social Effectiveness</td>
<td>Male</td>
<td>4.02</td>
<td>4.29</td>
<td>4.55</td>
<td>4.15</td>
<td>4.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.16)</td>
<td>(1.97)</td>
<td>(1.93)</td>
<td>(1.80)</td>
<td>(1.92)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.09</td>
<td>4.24</td>
<td>4.44</td>
<td>5.10</td>
<td>3.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.10)</td>
<td>(2.20)</td>
<td>(2.27)</td>
<td>(2.00)</td>
<td>(2.08)</td>
</tr>
<tr>
<td>Instrumental Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Social Influence</td>
<td>Male</td>
<td>3.64</td>
<td>3.82</td>
<td>4.63</td>
<td>4.24</td>
<td>4.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.29)</td>
<td>(1.33)</td>
<td>(1.28)</td>
<td>(1.13)</td>
<td>(1.23)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.57</td>
<td>3.31</td>
<td>4.63</td>
<td>4.66</td>
<td>4.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.04)</td>
<td>(1.26)</td>
<td>(1.44)</td>
<td>(1.28)</td>
<td>(1.17)</td>
</tr>
<tr>
<td>2. Instrumental Effectiveness</td>
<td>Male</td>
<td>4.06</td>
<td>4.18</td>
<td>4.95</td>
<td>4.67</td>
<td>5.26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.67)</td>
<td>(1.56)</td>
<td>(1.50)</td>
<td>(1.53)</td>
<td>(1.08)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.91</td>
<td>3.70</td>
<td>5.22</td>
<td>5.19</td>
<td>5.44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.44)</td>
<td>(1.50)</td>
<td>(1.05)</td>
<td>(1.10)</td>
<td>(91)</td>
</tr>
<tr>
<td>Anticipated Leadership</td>
<td>Male</td>
<td>3.74</td>
<td>3.86</td>
<td>4.66</td>
<td>4.26</td>
<td>4.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.83)</td>
<td>(1.73)</td>
<td>(1.88)</td>
<td>(1.47)</td>
<td>(1.74)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.71</td>
<td>3.82</td>
<td>4.83</td>
<td>5.10</td>
<td>3.97</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.60)</td>
<td>(1.69)</td>
<td>(1.95)</td>
<td>(1.81)</td>
<td>(1.71)</td>
</tr>
</tbody>
</table>

*Note.* The higher the mean, the more favorable the rating. Ratings were done on 7-point scales.
Overall, the younger female participants rated the female target higher than the male target for social outcomes, but the female target in the high assertiveness condition was rated the lowest by the younger female participants when compared to the female target in the low and moderate assertiveness conditions. Even though the female target in the high assertiveness condition was the least preferred by the younger female participants, the female target was still preferred to the male target in the high assertiveness condition for social outcomes. Interestingly, the younger male participants rated the female and male targets in the high assertiveness condition higher than the younger female participants rated both targets for social outcomes. Overall, for social outcomes, the younger female participants preferred the moderate assertiveness condition for both the male and female targets compared to the other two conditions, but the female target was preferred over the male target in this condition. The younger male participants also preferred the moderate assertiveness condition, but only for team and social effectiveness, and they rated the male target higher than the female target in this condition. The younger male participants did not see any differences between low and moderate assertiveness in terms of managing conflict, and rated the high assertiveness condition the least effective. Similar to team and social effectiveness the younger male participants preferred the male target in each of the assertiveness conditions for managing conflict.

For instrumental outcomes, younger male participants slightly favored the female target over the male target in the low assertiveness condition, and they rated the male and female targets virtually the same in the high assertiveness condition for instrumental
outcomes. In the moderate assertiveness condition the younger male participants rated the female target lower than the male target for instrumental outcomes. The younger female participants rated the female target lower than the male target in the low assertiveness condition for instrumental outcomes, and rated the male and female targets in the moderate and high assertiveness conditions virtually the same.

Finally, for the overall and anticipated leadership measures, the younger female participants preferred the moderate assertiveness condition, and favored the female target in all assertiveness conditions. The younger male participants preferred the male target in the moderate assertiveness condition and preferred the female in the low assertiveness condition. The younger male participants rated the male and female targets in the high assertiveness conditions virtually the same.

**Assertiveness by LMX quality interaction.** A 3 X 2 multivariate analysis for Assertiveness X LMX quality revealed significant main and interaction effects for LMX quality on managing conflict, the dependent measure for social outcomes, and instrumental effectiveness, the dependent measure for instrumental outcomes. Follow-up ANOVA analysis confirmed there was a significant interaction effect for LMX quality by assertiveness on managing conflict \( F(2, 463) = 6.24, p < .01, \eta^2 .02 \). LMX quality by assertiveness on instrumental effectiveness also had an interaction \( F(2, 463) = 4.27 p < .05, \eta^2 .01 \). The Table 5.4 depicts results from the 3 X 2 ANOVA test for managing conflict and instrumental effectiveness, and Figure 5.1 portrays these interactions.
Table 5.4

3 X 2 ANOVA for LMX by Assertiveness Interaction on Managing Conflict and Instrumental effectiveness

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assertiveness</td>
<td>81.42</td>
<td>2</td>
<td>40.71</td>
<td>47.11**</td>
<td>.16</td>
</tr>
<tr>
<td>LMX quality</td>
<td>344.94</td>
<td>1</td>
<td>344.94</td>
<td>399.18**</td>
<td>.46</td>
</tr>
<tr>
<td>Assertiveness X LMX quality</td>
<td>10.79</td>
<td>2</td>
<td>5.39</td>
<td>6.24*</td>
<td>.02</td>
</tr>
<tr>
<td>Error</td>
<td>400.08</td>
<td>463</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental Effectiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assertiveness</td>
<td>154.76</td>
<td>2</td>
<td>77.38</td>
<td>59.27**</td>
<td>.20</td>
</tr>
<tr>
<td>LMX quality</td>
<td>275.81</td>
<td>1</td>
<td>275.81</td>
<td>211.27**</td>
<td>.31</td>
</tr>
<tr>
<td>Assertiveness X LMX quality</td>
<td>11.15</td>
<td>2</td>
<td>5.57</td>
<td>4.27*</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>604.42</td>
<td>463</td>
<td>1.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Assertiveness N = 469. LMX N = 469.
*p<.05.
**p<.001.

Figure 5.1 Mean Plots for Managing Conflict & Instrumental Effectiveness

As hypothesized in H5(a)(b), LMX low quality increased the already low ratings for high assertiveness on social outcomes, and decreased the high ratings for high assertiveness on instrumental outcomes. On the other hand, high quality LMX significantly decreased the low ratings for high assertiveness on social outcomes, and increased the high ratings for high assertiveness on instrumental outcomes. However,
there was no significant difference between the moderate assertiveness condition and high assertiveness condition for LMX high quality on instrumental outcomes.

LMX low quality decreased the high ratings of moderate assertiveness for both social and instrumental outcomes, as predicted in hypothesis H5(a)(b). As well, high quality LMX significantly increased the high ratings of moderate assertiveness on social outcomes. Interestingly, the high rating for instrumental outcomes was increased by high quality LMX in the moderate assertiveness condition, but not significantly more than the high assertiveness condition; this was consistent with the main effects for moderate assertiveness on instrumental effectiveness.

As predicted in hypothesis H5(a)(b), the low assertiveness condition was significantly affected by LMX quality. Low quality LMX significantly increased the low rating of low assertiveness on social and instrumental outcomes. As anticipated, high quality LMX significantly decreased the low rating of low assertiveness on instrumental outcomes. Given there were significant main effects found for low assertiveness and social outcomes, high quality LMX also significantly decreased the low rating for this condition. Table 5.5 displays the means and standard deviations for the interaction effects.
Table 5.5

Means and Standard Deviations for Assertiveness by LMX Quality Interaction

<table>
<thead>
<tr>
<th>Condition</th>
<th>Social Outcomes</th>
<th></th>
<th>Instrumental Outcomes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Managing Conflict</td>
<td></td>
<td>Instrumental Effectiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>High Assertiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low LMX</td>
<td>2.84</td>
<td>1.17</td>
<td>4.77</td>
<td>1.12</td>
</tr>
<tr>
<td>High LMX</td>
<td>4.94</td>
<td>.97</td>
<td>5.88</td>
<td>.85</td>
</tr>
<tr>
<td>Moderate Assertiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low LMX</td>
<td>4.06</td>
<td>1.01</td>
<td>4.06</td>
<td>1.40</td>
</tr>
<tr>
<td>High LMX</td>
<td>5.75</td>
<td>.78</td>
<td>5.74</td>
<td>.78</td>
</tr>
<tr>
<td>Low Assertiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low LMX</td>
<td>3.64</td>
<td>.63</td>
<td>3.04</td>
<td>1.40</td>
</tr>
<tr>
<td>High LMX</td>
<td>5.00</td>
<td>.91</td>
<td>4.86</td>
<td>1.11</td>
</tr>
</tbody>
</table>

Note. The higher the mean, the more favorable the rating for each of the measures. Ratings were done on 7-point scales. N for each cell are listed in Table 4.2.

Three-way interaction

The moderation hypotheses for gender were not supported and therefore a three-way interaction was not tested.

The next chapter interprets the major findings of the study and how these findings contribute to theory and the implications for practice. As well, potential limitations and possible directions for future research will be discussed.
Chapter 6: Discussion

Until recently, assertiveness has, to a large extent, been ignored as a significant factor affecting leader outcomes; even though it is considered one of the qualities a leader should possess (Ames & Flynn, 2007; Kaiser & Hogan 2011; Miner, 1978). By concentrating on the nonlinear relationship assertiveness has with leader outcomes, Ames and Flynn (2007) were able to bring assertiveness out of the shadows. This discovery has provided researchers with the opportunity to understand and develop assertiveness as a significant predictor of leadership effectiveness. However, important boundary conditions needed to be identified. The purpose of this study was to identify under what conditions assertiveness would be more or less effective for a leader; as well as what level of assertiveness (low; moderate; high) would be the most effective for a leader’s social and instrumental outcomes. Overall, the main effects hypotheses were supported. However, the hypothesized boundary condition of gender was not supported, whereas the moderation hypotheses for Leader-member Exchange were supported.

Major Findings

Main effects hypotheses. As predicted by the main effects hypotheses, the moderate assertiveness condition emerged as a more significant predictor of social outcomes compared to the low and high assertiveness conditions. Furthermore, there was a significant price to pay in terms of a leader’s social outcomes when moving from moderate assertiveness to high assertiveness, or moving from moderate to low assertiveness. Figure 6.1 demonstrates the effect found on social outcomes for a leader moving from low to moderate or moderate to high and vice versa.
In terms of instrumental outcomes, the moderate assertiveness condition had significantly higher ratings when compared to the low assertiveness condition. However, there was no significant difference between the high and moderate assertiveness conditions. Therefore, a leader would see no benefit to his or her ability to accomplish goals if they moved from being highly assertive to moderately assertive.

Although it was expected that the low assertiveness condition would have significantly lower ratings on instrumental outcomes, it was not expected that it would have a negative effect on social outcomes. According to the literature, the low assertive leader should not be perceived negatively for social outcomes, because the leader’s willingness to go along with what others want is a benefit to getting along with others, and therefore an advantage to being likeable (Ames & Flynn, 2007; Ames, 2009). The results of this study suggested otherwise. The low assertive condition had significantly lower ratings for anticipated leadership effectiveness which could help explain why the low assertiveness condition was perceived negatively for social outcomes. It may be that the negative effect of one (anticipated leadership) was projected onto how well the leader
was liked in the low assertiveness condition. Consequently, a leader who is low in assertiveness may not experience positive social outcomes if he or she is perceived as ineffective overall. Another possible explanation could be that the low assertive leader is disliked, not because he or she is viewed as ineffective, but because their silence is misinterpreted for being boring or socially awkward and, therefore, not as pleasant to be around. This possibility could be explored in future studies. However, given the nature of the manipulated meeting situation in this current study, it is more likely that low assertiveness was to blame for overall ineffectiveness and resulted in significantly lower ratings.

**Moderation hypotheses.** Although no significant results were found in the analyses for gender as a moderating variable for assertiveness and leader outcomes, post-hoc analyses revealed an overall pattern for younger female participants. In terms of social outcomes, the younger female participants generally did not prefer the highly assertive leader, but, in particular, were not fond of the highly assertive male leader. As well, both the male and female participants in the low assertiveness condition, when considering social outcomes, generally preferred the female leader. This result could be because low assertiveness represents the lack of agentic qualities and is seen as more suitable to a female leader in the situation presented in the vignette. While both younger male and female participants viewed a moderately assertive leader as the most effective for social outcomes, male participants preferred the male leader and female participants preferred the female leader. A possible explanation for this result is that younger male participants still prescribe agentic traits as more effective leadership qualities and equate
these to the male gender. However, the slight differences between male and female leaders for the younger male participants indicate that this attitude could be changing.

The possible shift in gender stereotypes is most prevalent in the lack of gender differences for leaders’ instrumental outcomes. The ability to accomplish goals and to “get things done”, arguably requires more agentic qualities, including assertiveness, which are often attributable to male leaders. Yet, in this study, younger male and female participants favored both highly assertive male and female leaders equally, and the female participants rated male and female leaders high in assertiveness more favorably than the male participants. According to research on prescribed gender stereotypes, the highly assertive female leader should have paid a price for abandoning her communal role and acting in an agentic matter (Heilman & Okimoto, 2007; Heilman, 2012). However, the highly assertive female leader in this study was perceived as equally effective as the highly assertive male leader in terms of instrumental outcomes. Perhaps, where accomplishing goals and “getting things done” are concerned, the gender of the leader is irrelevant to the perceptions of the younger generation.

As stated earlier, the moderation hypotheses were supported for LMX quality. LMX low quality increased the negative effects and decreased the positive effects for social and instrumental outcomes. High quality LMX decreased the negative effects and increased the positive effects for social and instrumental outcomes. Therefore, a leader who has a low quality relationship with subordinates will experience greater negative perceptions of social and instrumental outcomes if he or she is low in assertiveness; the low assertive leader who has a high quality relationship with subordinates, will have significantly less negative perceptions of social and instrumental outcomes. However, the
gains for a low assertive leader who has a high quality relationship do not equal the gains made in the moderate assertiveness condition, which are significantly more positive than the low assertiveness condition for both social and instrumental outcomes.

Leaders do not often have the same quality of exchanges across subordinates, but rather they will have varying levels of high and low quality with individual or groups of subordinates (Graen & Uhl-Bien, 1995). Given this characteristic of LMX quality and its influence on assertiveness and leader outcomes, leaders will be more effective across both high and low quality exchanges if they have a moderate level of assertiveness. This condition can be seen in the significant positive gains moving from low to moderate assertiveness, and the significant costs of moving from moderate to high assertiveness for social outcomes. Although LMX low quality may decrease the positive perceptions of social effectiveness for a leader with moderate assertiveness, perceptions will still be significantly more positive than being low or high in assertiveness.

Recently, studies of assertiveness and self-awareness have shown that people do not often know how assertive they are or how others may perceive their assertiveness (Ames & Wazlawek, 2014). Therefore, if a leader is unable to recognize his or her own level of assertiveness, he or she may be less likely to make the necessary adjustments to a moderate, more effective level of assertiveness. In this case, the focus should be on improving the LMX quality with subordinates. Having more high quality relationships with more subordinates will decrease the negative perceptions of leader outcomes for a leader who remains low or high in assertiveness.
**Implications for Theory**

This study set out to incorporate three different areas (perceived assertiveness, gender stereotypes, and leader-member exchange) that have previously not overlapped. In doing so, the findings of this study make key theoretical contributions in all three areas. The main effects for the moderate assertiveness condition were supported and several of the effects for the low and high conditions replicated the findings of the Ames and Flynn (2007) study. One of the more important contributions of this study is the theoretically constructed and experimentally tested level of moderate assertiveness as a significant predictor of a leader’s social effectiveness. Further, the experimental methodology employed to replicate the previous findings strengthens the causality between assertiveness and leader outcomes, as well as identified LMX as a boundary condition that increases or decreases assertiveness as a predictor of leader outcomes. As well, the pretest performed in this study distinguishes assertiveness further from the constructs of dominance and aggressiveness, reducing the possibility of confounding effects that may have been present in previous operational definitions of assertiveness. The more we can distinguish assertiveness from other possible confounding variables, the stronger the causality for assertiveness and leadership effectiveness. Narrowing the assertiveness dimension leaves less doubt about what is actually affecting leadership effectiveness.

Although there was no significant effect for gender and assertiveness, this study still makes a contribution to the area of prescribed gender stereotypes. A possible explanation for the non-significant effect could be that there is a trend towards changing stereotypes, and, to some extent, the post-hoc analyses confirmed that attitudes among the younger generation are shifting to a model of leadership effectiveness that
incorporates both genders equally. While women have yet to see the result of a possible change in attitudes toward them in top leadership positions, it could be that working adults are altering their prescribed roles for men and women. As more and more women perform leadership roles and are not at home performing the traditional roles of caretaker, which form the expected communal behaviors, fewer and fewer people are experiencing this role as something women “should” do (Heilman & Okimoto, 2007). Therefore, the lack of fit model may not be as applicable as it was ten years ago (Heilman & Okimoto, 2007). Future research should focus on how prescribed stereotypes may be changing in the workplace, and how employees or hiring committees may be acclimating to the role of leadership as gender neutral.

This study also contributes to LMX theory in two important ways. Firstly, it fills an existing gap in the LMX research by testing and finding a significant interaction effect for the leadership personality trait of assertiveness, with LMX quality as a moderator of leadership outcomes. Previously, leader personality had been ignored in the LMX research, even though personality plays an important role in exchange quality as well as subordinate outcomes (Dulebohn et al., 2012). Secondly, this study tested LMX quality on leader outcomes and found significant main and interaction effects. In the past, there has been an over reliance on subordinate outcomes in LMX. The significant findings of this study for assertiveness, LMX quality, and leader outcomes will hopefully lead to new directions for LMX and assertiveness research.

**Implications for Practice**

How effective are leadership-training programs when the cost of failed leadership is still rising (Johnson, 2014)? Employees often cite their manager as the reason for
leaving a job. Consider that the cost of replacing an employee is 50% of their annual salary, and, at 11% turnover this amount can cost a company of 10,000 employees millions of dollars. In order to control the losses, both emotional and financial, a new approach to leadership- training may be necessary. It appears that training programs may be missing the mark in terms of leadership effectiveness and the increased complexities of interpersonal relationships that leaders navigate in organizational life. A more focused approach to training programs that better match these complexities could be beneficial for leaders, subordinates, and the company’s bottom line. Thus, the findings for the operationalized levels of assertiveness tested in this study can inform in-house training programs and help managers effectively navigate the murky waters of interpersonal relationships at work. Understanding what a moderately assertive approach to accomplishing goals would look like, and how this impacts perceptions of both social and instrumental outcomes, is a key ingredient for successful leadership.

However, understanding assertiveness may not always be possible and, as recent research has shown, people consistently misjudge their own assertiveness, leaders being no exception (Ames & Wazlawek, 2014). Thus, knowing the conditions of when assertiveness is perceived as most effective can lead to better situational training for leaders. Based on the results of this study, training programs could emphasize the quality of relationships that leaders have with their subordinates, if the leaders are unable or unwilling to change their own assertiveness. Training that focuses on having more high quality relationships with more subordinates will decrease the negative perceptions of leader outcomes for a leader who remains low or high in assertiveness. The leader that is high in assertiveness and has high quality exchanges with employees will be effective,
but the leader that is moderately assertive and has high quality exchanges will be the most effective socially and instrumentally.

**Potential Limitations and Opportunities for Future Research**

Experimental research has often been criticized for lacking realism and not accurately gaging participant’s cognitive responses (Aguinis & Bradley, 2014). Although several steps were taken in this study to reduce the artificial nature of the experimental vignette methodology, there is still a threat to external validity and generalizability with this type of research. However, one of the main goals of this study was to strengthen the theoretical construct of assertiveness which required a method that provided high internal validity. Yet, the working adult sample selected for this study was an attempt to increase the generalizability of these findings, while the realism of the vignettes decreased the threat to external validity. Nevertheless, the findings of this study should be followed up with a study that measures participants’ actual experiences with the operationalized levels of assertiveness tested in this study.

While one of the advantages of a between-subjects design is to further control for extraneous factors, it also comes at the cost of not having a comparative process for the levels of assertiveness. During the pre-pilot phase, it was discovered that when participants were having troubles deciding, or were questioned on their choice and presented with the other vignettes, it was much easier for them to make a judgment and decide on the level of assertiveness. Therefore, it could be that identifying levels of assertiveness is a comparative process, and judgments about the differences cannot be made in a vacuum. It is also recommended by Aguinis & Bradley (2014) that within-subjects design is a more useful method when wanting to detect even the smallest
differences in judgments. However, there is also the trade-off of introducing demand characteristics to the experiment. Future research should include a within-subjects design to test for the levels of assertiveness operationalized in this current study.

In this current study, the moderation hypotheses for gender were not supported. Although there are several explanations for this result, a potential limitation of the design could be a contributing factor. It could be that the gender manipulation in the vignettes was not sufficient enough to emphasize the prescribed stereotypes. For this study only pronouns were manipulated for each of the levels of assertiveness. It is recommended that future research design emphasize the gender of the leader to a greater extent. For example, provide an additional description after the gender neutral baseline that explicitly states that Chris is a “female leader” or “male leader”. Also recommended is incorporating more immersive techniques such as: including a photo with each male and female condition as done in the Heilman and Okimoto (2007) study (Aguinis & Bradley, 2014). Video is also recommended by Aguinis and Bradley (2014), yet cost and time would be a factor. There is also the trade off between realism and the number of variables that will need to be controlled for as the immersive techniques introduce more confounding variables (Atzmüller & Steiner, 2010).

There are several important directions for assertiveness and leadership research. Given the significant findings for the main and interaction effects of assertiveness on social outcomes, more specifically managing conflict, it is worth pursuing scale development to better test and measure this salient aspect of assertiveness. As a leader, the ability to manage conflict is vital to how well he or she is able to get along with others and be liked by subordinates. As this study demonstrates, assertiveness and
important boundary conditions, such as LMX quality, play a significant role in the outcomes of managing conflict, a dimension of social outcomes. Focusing scale development for assertiveness in this direction will be very beneficial in strengthening the construct of assertiveness, as well as specifically defining outcomes of assertiveness for leaders. Furthermore, future studies should focus on the situational aspects of assertiveness, LMX and both leader and subordinate characteristics. For instance, will assertiveness play a greater role when a leader interacts with a subordinate to accomplish a particular task, and how does the subordinate’s own assertiveness play a role?

In this study, assertiveness was conceptualized as a predictor variable, with LMX and gender as moderators, but future studies may want to examine assertiveness as the moderating variable for LMX development since one of the studies on assertiveness revealed that people high in assertiveness usually seek out others with similar characteristics (Ames, 2009). An interesting study for the future will be to examine how assertiveness impacts the formation of a high or low quality leader-member exchange, in order to further test the causal ordering of assertiveness, LMX, and leader outcomes.

**Conclusion**

In conclusion, the current study provides evidence in support of the previous findings for assertiveness. The main effect was significant for assertiveness on a leader’s social and instrumental outcomes. Furthermore, this study extends the previous findings of the Ames and Flynn (2007) study, and found a significant interaction effect for LMX quality (high; low) by assertiveness on leader outcomes. Thus, this study highlights the role of assertiveness in predicting leader outcomes, and, more importantly, identifies when certain conditions can increase or decrease the affect of assertiveness on
perceptions of leadership outcomes: an important step in understanding the “how” of this relationship.
References


Appendix A

Women in Senior Management in Canada


Women in Management in Canada
Appendix B

Assertiveness Vignettes

Informed consent

Opt-out

Introduction

Randomized between participants (n=90)

Low Assertiveness

Moderate Assertiveness

High Assertiveness

Assertiveness, Dominance, Aggressiveness measures

Demographics

Debrief
Informed consent

Opt-out

Introduction

Randomized Between-participants (n=60)

High LMX quality

Low LMX quality

Demographics

Debrief
Appendix C

Pretest Vignettes: randomized to one condition

**Low Assertiveness**: Leader X is asked to take a proposed policy change from his/her superiors to his/her subordinates. This policy change is important to the future of the company and leader X believes the policy is in the best interest of the organization. At a meeting with subordinates, leader X explains the importance of the policy. A discussion about the proposal begins and, as in previous meetings, leader X remains silent while several people express opposing viewpoints. Leader X continues to hold back and say nothing, hoping the group will eventually support the proposed policy.

**Moderate Assertiveness**: Leader X is asked to take a proposed policy change from his/her superiors to his/her subordinates. This policy change is important to the future of the company and leader X believes the policy is in the best interest of the organization. At a meeting with subordinates, leader X welcomes everyone’s opinion on the proposal and explains the importance of the policy. A discussion begins and, as in previous meetings, leader X acknowledges the opposing viewpoints of several group members, and is willing to accept some of their recommendations to reach a consensus.

**High Assertiveness**: Leader X is asked to take a proposed policy change from his/her superiors to his/her subordinates. This policy change is important to the future of the company and leader X believes the policy is in the best interest of the organization. At a meeting with subordinates, leader X presents the policy, firmly stating its importance to the organization. A discussion begins and, as in previous meetings, leader X allows others to speak, but maintains the position that the proposed policy is fine the way it is and should not change.

Pretest Measures

<table>
<thead>
<tr>
<th></th>
<th>Based on the scenario you just read, how do you feel about the following statement concerning leader X:</th>
<th>Indifferent</th>
<th>Very Concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leader X feels that differences are not worth worrying about.</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Leader X sometimes avoids taking positions that would create controversy.</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Leader X sacrifices his/her own wishes for the wishes of other people.</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Leader X simply ordered them to do what was stated in the policy.</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all assertive</td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td>---------------------</td>
<td>---</td>
</tr>
<tr>
<td>5</td>
<td>On a scale of 1 to 9 how would you rate leader X's level of assertiveness.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Aggression and Dominance Measures**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Extremely uncharacteristic</th>
<th></th>
<th></th>
<th>Extremely characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Based on the scenario you just read, would it be characteristic of leader X to resort to violence to protect his/her rights?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Based on the scenario you just read, do you feel that leader X can’t help getting into arguments when people disagree with him/her?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Based on the scenario you just read, do you feel it would be characteristic of leader X to fly off the handle for no good reason?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Based on the scenario you just read, do you think leader X feels that it’s probably a good thing that certain groups are at the top and other groups are at the bottom?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Based on the scenario you just read, do you think leader X feels that we would have fewer problems if we treated people more equally.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
On a scale from 1 to 9, how would you rate the realism of the scenario you just read?

Is there anything we can do to improve this survey? (open-ended)

LMX Pretests Measures: randomized to one condition.

Chris is the director of an important business unit within a larger organization. Chris has been with the company, and in this position, for two years. As the director, Chris is responsible for 75 employees and five direct reports; two are administrative assistants and three are managers responsible for various areas within the business unit. Chris reports directly to the vice president of the organization and is responsible for the performance of the unit as well as future strategic initiatives. It is the director's responsibility to communicate the ideas of the business unit to senior administration as well as ensure that decisions from the top are communicated to the unit.

LMX High: When asked about their work relationship with Chris, the director, some subordinates responded with the following comments:

"I have high degree of trust and respect for Chris"
"We have a lot of similar values and I feel more like a colleague than a subordinate"
"I feel like I get projects that are beyond my regular duties because Chris trusts that I will do a good job"
"I stand behind the decisions made by the director because I know Chris would do the same for me"
"I like the challenging tasks I'm given by the director and the fact that Chris confides in me about what is happening within the organization"

LMX Low: When asked about their work relationship with Chris, the director, some subordinates responded with the following comments:

"I do what the boss tells me as long as it's within my job description"
"We don't really share similar values and I prefer to keep my distance from Chris when possible"
"Chris doesn't ask me to take on extra duties and that's fine with me"
"I don't feel that I owe Chris or the company anything extra, and would probably leave if another opportunity came along"
"At this point, I really don't see the benefit of putting any extra effort into this relationship"

LMX7 Measures

Based on the scenario you just read, how would you characterize the working relationship between Chris, the director and his/her subordinates?
Regardless of how much formal authority the director has built into his/her position, what are the chances that he or she would personally be inclined to use power to help his/her subordinates solve problems in their work?

<table>
<thead>
<tr>
<th></th>
<th>No chance</th>
<th>Might or might not</th>
<th>Probably would</th>
<th>Certainly would</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

How well do you feel the director understands the problems and needs of his/her subordinates?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Some but not enough</th>
<th>Well enough</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On a scale from 1 to 9, how would you rate the realism of the scenario you just read?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is there anything we can do to improve this survey? (open-ended)

Demographics for both pretests:

1. What is your age?
   - 18 - 24
   - 25 - 34
   - 35 - 44
   - 45 - 54
   - 55 - 64
   - 65 and over

2. What is your gender?
   - Male
   - Female
   - Other

3. What is your racial/ethnic heritage? (check all that apply)
   - White
   - Black or African American
   - Mexican
   - Puerto Rican
   - Cuban
   - Asian Indian
   - Chinese
   - Filipino
   - Japanese
   - Korean
   - Other Asian
   - Native Hawaiian
   - Guamanian or Chamorro
   - Bi-racial or multi-racial
   - Other Pacific Islander
Other Hispanic or Latino  Vietnamese  Other Race
American Indian or Alaska Native

4. Are you currently employed?  Yes or no

If yes, for how many years? _____ years

Thank you for your assistance with this survey!
Appendix D

Sample of Assertiveness Vignette and Measures

Chris is the director of an important business unit within a larger organization. Chris has been with the company, and in this position, for two years. As the director, Chris is responsible for 75 employees and five direct reports; two are administrative assistants and three are managers responsible for various areas within the business unit. Chris reports directly to the vice president of the organization and is responsible for the performance of the unit as well as future strategic initiatives. It is the director’s responsibility to communicate the ideas of the business unit to senior administration as well as ensure that decisions from the top are communicated to the unit.

**High Assertiveness Condition:** Chris is asked to take a proposed policy change from his superiors to his subordinates. This policy change is important to the future of the company and Chris believes the policy is in the best interest of the organization. At a meeting with subordinates, he presents the policy, firmly stating its importance to the organization. A discussion begins and, as in previous meetings, he allows others to speak, but maintains the position that the proposed policy is fine the way it is and should not change.

**Moderate Assertiveness Condition:** Chris is asked to take a proposed policy change from her superiors to her subordinates. This policy change is important to the future of the company and Chris believes the policy is in the best interest of the organization. At a meeting with subordinates, she welcomes everyone’s opinion on the proposal and explains the importance of the policy. A discussion begins and, as in previous meetings, Chris acknowledges the opposing viewpoints of several group members, and she is willing to accept some of their recommendations to reach a consensus.

**Low Assertiveness Condition:** Chris is asked to take a proposed policy change from her superiors to her subordinates. This policy change is important to the future of the company and Chris believes the policy is in the best interest of the organization. At a meeting with subordinates, she explains the importance of the policy. A discussion about the proposal begins and, as in previous meetings, Chris remains silent while several people express opposing viewpoints. She continues to hold back and say nothing, hoping the group will eventually support the proposed policy.

### Assertiveness Manipulation Check Items

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Based on the scenario you just read how you do feel about the following statement concerning Chris: Chris feels that differences are not worth worrying about.</td>
<td>Strongly disagree</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Chris sometimes avoids taking positions that would create controversy.</td>
<td>Strongly disagree</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

105
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all assertive</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Highly assertive</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>On a 7 point scale how would rate Chris’s assertiveness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

4. Based on the scenario what do you think Chris’s strengths are?

5. Based on the scenario what do you think Chris’s weaknesses are?

**High Quality LMX:** When asked about their work relationship with Chris, the director, some subordinates responded with the following comments:

"I have high degree of trust and respect for Chris"
"We have a lot of similar values and I feel more like a colleague than a subordinate"
"I feel like I get projects that are beyond my regular duties because Chris trusts that I will do a good job"
"I stand behind the decisions made by the director because I know Chris would do the same for me"
"I like the challenging tasks I'm given by the director and the fact that Chris confides in me about what is happening within the organization"

**Low Quality LMX:** When asked about their work relationship with Chris, some subordinates responded with the following comments:

"I do what the boss tells me as long as it's within my job description"
"We don't really share similar values and I prefer to keep my distance from Chris when possible"
"Chris doesn't ask me to take on extra duties and that's fine with me"
"I don't feel that I owe Chris or the company anything extra, and would probably leave if another opportunity came along"
"At this point, I really don't see the benefit of putting any extra effort into this relationship"

**LMX Manipulation Check Items**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very ineffective</th>
<th>Ineffective</th>
<th>Effective</th>
<th>Very effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Based on the scenario you just read, how would you characterize the working relationship between Chris, and his subordinates?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No chance</th>
<th>Might or might not</th>
<th>Probably would</th>
<th>Certainly would</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Regardless of how much formal authority the director has built into his position, what are the chances that he would personally be inclined to use power to help his subordinates solve problems in their work?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
<td>Some but not enough</td>
<td>Well enough</td>
</tr>
<tr>
<td>---</td>
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<td>------------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>8</td>
<td>How well do you feel the director understands the problems and needs of his subordinates?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the job description, the workplace scenario, and subordinate comments about Chris, please respond to how well the following statements fit with what you have read about him.

**Leadership Effectiveness Measure (Social Influence)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Chris is able to direct and steer meetings in his favor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>10</td>
<td>Chris is able to persuade other people and change their opinions.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>11</td>
<td>He is able to build effective working relationship with others who have different opinions or interests.</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>He tries to win arguments by dominating the discussion. (reverse-coded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The substance of his messages gets lost because of how they are communicated. (reverse-coded)</td>
<td></td>
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</table>

**Leadership Effectiveness Measure (Managing Conflict)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>Chris is very good at generating innovative solutions to resolve conflicts.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Never</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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</tr>
<tr>
<td>15</td>
<td>People seek his advice and help in resolving conflicts.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>16</td>
<td>He considers the viewpoints of all parties involved in a conflict.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>17</td>
<td>Chris has a hard time standing his ground in a heated conflict. (reverse coded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>In conflicts, his competitive side comes out to an excessive extent. (reverse coded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>When working in a team, he makes sure everybody is kept informed and in the loop.</td>
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<tr>
<td>20</td>
<td>He creates an atmosphere in which group members feel free to disagree with one other.</td>
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<tr>
<td>21</td>
<td>Chris takes initiative in contributing to the team’s efforts.</td>
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<tr>
<td>22</td>
<td>Chris is unwilling to sacrifice his self-interest for the good of the team.</td>
<td></td>
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</tbody>
</table>
When working on a group project, he tends to want to do it all himself.

Attention Check Item

What is your favorite color?

Overall Leader Effectiveness Items

He is an effective leader.

If I had the chance, I would definitely want to have Chris as my leader.

Looking ahead, I expect he will experience great success as a leader.
<table>
<thead>
<tr>
<th></th>
<th>Based on what you have learned about Chris, please consider the following statement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>He is able to build strong, positive relationships and trust with those working for him.</td>
</tr>
</tbody>
</table>

**Leader Instrumental Effectiveness item**

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th></th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Based on what you have learned about Chris, please consider the following statement.</th>
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</thead>
<tbody>
<tr>
<td>27</td>
<td>He is able to get his way and accomplish his work and performance goals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th></th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Flow of Participants for Main Study

Informed consent

Opt out

Introduction

Description of Director position (gender neutral)

Randomized 12 conditions (n=469)

High Assertiveness

Male (pronoun change)

Female

Assertiveness Manipulation check

LMX High quality

LMX Low quality

LMX Manipulation check

Dependent measures

Moderate Assertiveness

Male

Female

Assertiveness Manipulation check

LMX High quality

LMX Low quality

LMX Manipulation check

Dependent measures

Low Assertiveness

Male

Female

Assertiveness Manipulation check

LMX High quality

LMX Low quality

LMX Manipulation check

Dependent measures

Demographics

Debrief