Assertiveness and Leadership Perceptions:
The Role of Gender and LMX

Corie S. Lazenby
Faculty of Management, University of Lethbridge
Lethbridge, Alberta, T1K 3M4, Canada
Tel: 403-329-2037; E-Mail: c.lazenby@uleth.ca

Mahfooz A. Ansari
Faculty of Management, University of Lethbridge
Lethbridge, Alberta, T1K 3M4, Canada
Tel: 403-329-2069; Fax: 403-329-2038; E-Mail: mahfooz.ansari@uleth.ca

Correspondence concerning this proposal should be addressed to Mahfooz A. Ansari,
Faculty of Management, The University of Lethbridge, 4401 University Drive W, Lethbridge, Alberta T1K 3M4, Canada; E-mail: mahfooz.ansari@uleth.ca; Web: http://mahfoozaansari.blogspot.com/

Poster
TITLE
Assertiveness and Leadership Perceptions: The Role of Gender and LMX

ABSTRACT
Using an experimental design ($N = 469$), we examined the main and interacting effects of assertiveness, gender, and LMX quality on leader outcomes. As expected, the moderate assertiveness condition was better predictive of positive leader outcomes. LMX did interact significantly with assertiveness in predicting leadership outcomes, whereas gender did not.

PRESS PARAGRAPH
Using a 3 X 2 X 2 between-participants experimental design ($N = 469$), we tested the main effect of assertiveness on leader outcomes and the moderating role of gender and LMX quality in this relationship. The main effect hypothesis was supported in that moderate assertiveness was better predictive of positive leader outcomes than low and high assertiveness. Gender did not alter the main effect of assertiveness, but LMX did interact significantly with assertiveness in predicting leadership outcomes. Practical implications include the development of better situational leadership training based on the knowledge of conditions when assertiveness is perceived as most effective.

WORD COUNT
2,967

**Assertiveness and Leadership Perceptions:
The Role of Gender and LMX**

Until recently, assertiveness has, to a large extent, been ignored as a key 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, a study by Ames and Flynn (2007) brought 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 are yet to be identified. Through exploring the boundary conditions of assertiveness and leadership by incorporating prescribed gender stereotypes with social exchange theory, the present study fills an existing gap in our understanding of when assertiveness is most effective. Currently, these areas—assertiveness, gender, and leader-member exchange (LMX)--do not overlap when considering leadership perceptions, but are very relevant to the interpersonal relationships that leaders navigate in organizational life (Ames & Flynn, 2007; Eagly et al., 2000; Eagly & Johnson, 1990; Dulebohn et al., 2012; Heilman & Okimoto, 2007; Martin et al., 2010).

Specifically, this study contributes to the existing leadership research in two important ways. First, the study offers a unique perspective to how gender and LMX quality influence different levels of assertiveness on a leader's social and instrumental outcomes. Second, this study contributes to the LMX research by combining an important leader personality trait with LMX to test leadership effectiveness, both of which have been lacking in the LMX area, as evident in a recent meta-analysis (Dulebohn et al., 2012).

Theory and Hypotheses

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 (House & Aditya, 1997; Judge et al., 2009). Table 1 summarizes the timeline and assrtiveness key

concepts found as a result of the literature review. The Ames and Flynn (2007) study distinguished assertiveness from extraversion because it found a negative relationship for assertiveness and leadership effectiveness. Essentially, the positive nature of extraversion obscured the possible negative effects of assertiveness (Ames & Flynn, 2007; Judge et al., 2009). Assertiveness, as defined 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 three separate studies, Ames and Flynn determined that assertiveness produced a curvilinear effect on social and instrumental outcomes[1]. The results were interpreted to mean that moving from high to moderate levels of assertiveness would increase returns for social outcomes, but moving from low to moderate levels of assertiveness would increase instrumental outcomes (Ames & Flynn, 2007). The purpose of this study was to identify and strengthen the causal link between assertiveness and leadership outcomes. Therefore the following hypothesis was tested:

> *H1:* The moderate assertiveness condition will have a positive effect for both (a) leader social outcomes and (b) leader instrumental outcomes.

Given the new findings of assertiveness as a significant predictor of leadership effectiveness, there has been no attempt in the leadership area to identify the boundary conditions of assertiveness. 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.

Although gender and leadership have been studied extensively as part of the trait paradigm, a review of the literature (e.g., House & Aditya, 1997) revealed a gap in the perception of assertiveness and the role that gender, or prescribed gender roles, plays in the relationship with leadership effectiveness. The historical link

between the constructs of assertiveness and extraversion in the leadership paradigm may also be relevant to assertiveness in the gender stereotype research. This connection is also made by Eagly and Johnson (1990) in their meta-analysis on gender and leadership. 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). These findings suggest that the role of leadership and the prescriptive stereotype for females are at odds with each other, as conceptualized by role congruity theory (Eagly & Karau, 2002). Based on the current understanding of assertiveness and gender, the following hypotheses were framed:

H2a: 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 instrumental and social outcomes than male leaders in the high assertiveness condition.

H2b: 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 social outcomes than male leaders, and there will be no significant difference for instrumental outcomes in the moderate assertiveness condition.

H2c: 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 instrumental outcomes than male leaders, and that female leaders will have more positive perceptions of social outcomes than male leaders in the low assertiveness condition.

LMX provides the theoretical foundation to further investigate if the curvilinear nature of assertiveness holds true under different quality LMX conditions. 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 the 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). Interpersonal relationships are often not considered when looking at LMX (Martin, Epitropaki, Thomas, & Topakas, 2010; Phillips & Bedeian, 1994; Thomas, Martin, Epitropaki, Guillaume, & Lee, 2013). Relationships are fundamental to this theory yet LMX has devoted minimal attention to leader personality (Dulebohn et al., 2012). Therefore this gap in the LMX research will be incorporated into the theoretical model and tested as a moderator of assertiveness-leader outcomes relationship. Based on the current understanding of assertiveness and LMX, the following hypotheses were offered:

H3a: LMX quality moderates the relationship between assertiveness and a leader's 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.

H3b: LMX quality moderates the relationship between assertiveness and a leader's 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.

Method
Experimental Design, Participants, and Procedure

This was a 3 X 2 X 2 between-participants factorial design, with three factors: three levels of assertiveness (high; moderate; low), two levels of gender (male; female), and two levels of LMX quality (low; high). The distribution of participants across 12 conditions can be found in Table 2. 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, it was desirable to give participants as much contextual background as possible about the position description (Aguinis & Bradley (2014)[2]. Once participants were randomly assigned to one of 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 for the purpose of gender manipulation (male or female). The fourth and fifth sentences manipulated assertiveness (high, moderate or low), as well as pronoun changes for the manipulation of gender.

After participants read the meeting vignette, they were asked three questions about assertiveness as a manipulation check. The participants then read one of two manipulated vignettes for LMX quality (high or low). The vignette for LMX was designed around employee feedback about the same hypothetical leader used in the assertiveness vignette[3]. Each condition (high quality or low quality) had the same number of five statements from the subordinates. Participants then responded to 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.

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, over 50% were between the ages of 25 and 34, and majority of them (79%) were Caucasian. 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, entertainment, recreation, hotel, and food services. The remaining participants were spread across a wide variety of sectors.

Measures

There were two primary dependent variables, social and instrumental leadership outcomes. Of these two aspects of leadership, three dimensions of leadership were measured. The leadership effectiveness scale used in the Ames and Flynn (2007) study was modified and used to measure the dependent variables of social, and instrumental outcomes[4]. Social outcomes were measured with the dimensions of managing conflict, team effectiveness, and a single item of social effectiveness. Instrumental outcomes were measured with social influence and a single item of instrumental effectiveness. Table 3 lists the modified measures used in this study for both manipulation checks and the dependent variables. Four items from the managing conflict ratings were combined to form a scale ($\alpha = .74$). Four items from the social influence ratings were combined to form a scale ($\alpha = .80$). All five items from the team effectiveness ratings were combined to form a scale ($\alpha = .81$). There were three modified questions on overall leadership effectiveness and anticipated effectiveness from the Ames and Flynn (2007) study ($\alpha = .96$). Descriptive statistics, reliability coefficients, and intercorrelations among the dependent variables appear in Table 4.

In order to control for any aspect of the experiment that might be affected by social

desirability, a 6-item social desirability scale was used (Crowne & Marlow, 1960). Also included were demographic questions for gender, age, ethnicity, and employment status, years of employment and type of employment.

Results
Manipulation Checks
An analysis of variance (ANOVA) verified that assertiveness manipulation was successful, with a significant main effect for assertiveness, $F(2, 466) = 176.07$, $p < .01$, $\eta^2 = .43$. Follow-up Bonferroni's tests indicated that participants in the low assertiveness condition rated the target significantly ($p < .01$) lower ($M = 3.03$; $SD = 1.44$) than the moderate assertiveness condition ($M = 5.03$; $SD = 1.09$), and the moderate assertiveness condition was significantly ($p < .01$) lower than the high assertiveness condition ($M = 5.60$; $SD = 1.27$).

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 = *very ineffective*; 4 = *very effective*). The three items were combined to form a scale ($\alpha = .86$). An ANOVA indicated that LMX quality manipulation was successful, with a significant main effect for LMX quality, $F(1, 467) = 747.32$, $p < .01$, $\eta^2 = .61$. Participants in the LMX high condition rated the target as significantly higher ($M = 3.27$; $SD = .53$) than the low quality LMX condition ($M = 1.97$; $SD = .49$).

Test of Hypotheses
A multivariate analysis of variance (MANOVA) was conducted to test for the main effect of assertiveness on both social and instrumental dependent variables. The multivariate F was significant for assertiveness on all dependent measures, Wilks' Lambda = .563, $F(12, 920) = 25.47$, $p < .01$, $\eta^2 .24$, except for social effectiveness, which was approaching statistical significance. 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. Follow-up

univariate ANOVAs were conducted for each of the significant dependent measures. The MANOVA results are presented in Table 5, and means and standard deviations for the main effects are included in Table 6.

A 3 X 2 MANOVA 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.

A 3 X 2 MANOVA for Assertiveness X LMX quality revealed significant main and interaction effects for LMX quality on managing conflict, social outcomes, instrumental effectiveness, and instrumental outcomes. A follow-up ANOVA confirmed a significant interaction effect for LMX by assertiveness on managing conflict, $F(2, 463) = 6.24$, $p < .01$, $\eta^2 .02$. LMX quality by assertiveness on instrumental effectiveness also revealed a significant interaction, $F(2, 463) = 4.27$ $p < .05$, $\eta^2 .01$. Table 7 depicts the ANOVA results for managing conflict and instrumental effectiveness, and Figures 1 and 2 portray these significant interactions effects. Both interactions suggest that in order for moderate assertiveness to be more effective than low and high assertiveness high quality LMX is a condition.

Discussion
This study sets out to incorporate three different areas (perceived assertiveness, gender stereotypes, and LMX) that has been largely ignored in previous research. In doing so, this study makes 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 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.

Although there was no significant effect of gender on 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.[5] Therefore, the lack of fit model may not be as applicable as it was a decade ago (Heilman & Okimoto, 2007).

This study also contributes to the existing LMX literature in two important ways. First, it fills an existing gap by 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 played an important role in predicting exchange quality and subordinate outcomes (Dulebohn et al., 2012). Second, 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. Our significant interactions clearly suggest that, in order for moderate assertiveness to be more effective than low or high assertiveness, LMX acts as a conditional factor. The significant findings of this study for assertiveness, LMX quality, and leader outcomes will hopefully lead to new directions for LMX and assertiveness research.

Despite the numerous theoretical and practical contributions, this study has some potential limitations. First, 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 with this type of research. Future research should be followed up with a study that

measures participants' actual experiences with the operationalized levels of assertiveness. Second, it could be that the gender manipulation in the vignettes was not sufficient enough to emphasize the prescribed stereotypes. Future research should emphasize the gender of the leader to a greater extent. Third, 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. Thus future research should include a within-subjects design to test for the levels of assertiveness.

In conclusion, the purpose of this study was to identify the conditions under which 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, whereas the hypothesized boundary condition of gender was not supported, LMX as a moderator hypothesis received full support.

References

Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods, 17*(4), 351-371. doi: 10.1177/1094428114547952

Ames D., & Flynn, F.J. (2007). What breaks a leader: the curvilinear relation between assertiveness and leadership. *Journal of Personality and Social Psychology, 92*(2), 307-324. doi: 10.1037/0022-3514.92.2.307

Ansari, M. A., & Kapoor, A. (1987). Organizational context and upward influence tactics. *Organizational Behavior and Human Decision Processes, 40*(1), 39-49. doi: http://dx.doi.org/10.1016/0749-5978(87)90004-5

Chen, Z. X., & Aryee, S. (2007). Delegation and employee work outcomes: An examination of the cultural context of mediating processes in China. *Academy of Management Journal, 50*(1), 226-238. doi: 10.5465/AMJ.2007.24162389

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874-900. doi: 10.1177/0149206305279602

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.

Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management, 38*(6), 1715-1759. doi: 10.1177/0149206311415280

Eagly, A., & Johnson, B. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin, 108*(2), 233. doi: 10.1037/0033-2909.108.2.233

Eagly, & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*(3), 573-598. doi: 10.1037//0033-295x.109.3.573

Eagly, Wood, W., & Diekman, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. *The developmental social psychology of gender*, 123-174.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219-247. doi: http://dx.doi.org/10.1016/1048-9843(95)90036-5

Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks?: the implied communality deficit. *Journal Applied Psychology, 92*(1), 81-92. doi: 10.1037/0021-9010.92.1.81

Heilman, M. E. (2012). Gender stereotypes and workplace bias. *Research in Organizational Behavior, 32*, 113-135. doi:10.1016/j.riob.2012.11.003

House, R. J., & Aditya, R. N. (1997). The social scientific study of leadership: quo vadis? *Journal of Management, 23*(3), 409. doi: 10.1177/014920639702300306

Judge, Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *Leadership Quarterly, 20*(6), 855-875. doi: 10.1016/j.leaqua.2009.09.004

Kaiser, R. B., & Hogan, J. (2011). Personality, leader behavior, and overdoing it. *Consulting Psychology Journal: Practice and Research, 63*(4), 219. doi: 10.1037/a0026795

Martin, R., Epitropaki, O., Thomas, G., & Topakas, A. (2010). A review of leader-member exchange research: Future prospects and directions. *International Review of Industrial and Organizational Psychology, 25*, 35-88.

Miner, J. B. (1978). Twenty years of research on role-motivation theory of managerial effectiveness. *Personnel Psychology,*

31(4), 739-760. doi: 10.1111/j.1744-6570.1978.tb02122.x

Phillips, A. S., & Bedeian, A. G. (1994). Leader-follower exchange quality: The role of personal and interpersonal attributes. *Academy of Management Journal, 37*(4), 990-1001. doi: 10.2307/256608

Thomas, G., Martin, R., Epitropaki, O., Guillaume, Y., & Lee, A. (2013). Social cognition in leader-follower relationships: Applying insights from relationship science to understanding relationship-based approaches to leadership. *Journal of Organizational Behavior, 34*, S63-S81. doi: 10.1002/job.1889

Footnotes

[1] Leader outcomes for this study were defined similar to the Ames and Flynn (2007) study: *Instrumental Outcomes* were defined as the ability to achieve goals, get one's way, persuading others (social influence) and demonstrate initiative-taking behaviours; *Social Outcomes* were defined as the ability to get along, be liked, managing conflict, display social-emotional behaviors (verbal compliments, modelling, and praise) and team effectiveness.

[2] Participants were informed of the job title (Director), 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 a feedback received from our pilot study, the job description was kept at the top of the screen for all manipulated conditions for referral purposes.

[3] 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 experienced relevant to the quality of that exchange.

[4] 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.

[5] To save space, *post hoc* analyses are not reported.

Table 1

Summary of Key Assertiveness Concepts in the Review of the Literature

	Area		
	Clinical Psychology	Management	Leadership
Key concepts	• Focus on individuals of the same status • Assertiveness necessary but not liked in social conflict situations • Lack of assertiveness in commendatory situations viewed negatively • Rights assertion: assertion of your own rights while respecting the rights of others	• Assertiveness viewed as a self-interest rather than a collective interest • Assertiveness viewed as key characteristic of extraversion (Big Five) • Measured under extraversion and dominance • Early measurements of dominance & extraversion questionable (predictor & criterion misaligned) • Distinction between behavioral and trait differences	• Focus on individuals of different status • Leadership effectiveness vs. leadership emergence • Often associated with extraversion, aggression and dominance • Personality traits are significant predictors of affective and relational effectiveness • Assertiveness emerged as a significant weakness for leadership effectiveness • Situational assertiveness: assertiveness is judged equally across situations • Assertiveness expectancies often determine how assertive an individual will be perceived • Self-awareness and assertiveness: individuals are often not aware of how assertive they are
Timeline	1970-1990s	1990-early 2000s	Early 2000s-2014

Table 2

Distribution of Participants Across Experimental Conditions

	LMX Low		LMX High	
	Male	Female	Male	Female
Low Assertiveness	42	38	39	40
Moderate Assertiveness	39	38	44	38
High Assertiveness	40	39	36	36
Total	121	115	119	114 = 469

Table 3

Measures for Main Study

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

Table 4

Descriptive Statistics, Coefficients Alpha, and Intercorrelations of Dependent Measures

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

Note. *N* = 469. Coefficients Alpha are displayed on the diagonal in bold. SIM = single item measure.
* *p* < .05; ***p* < .01.

Table 5

MANOVA Analysis for Main Effects of Assertiveness

Dependent variables	*SS*	*df*	*MS*	*F*	η^2
Social Outcomes					
Managing Conflict	93.83	2	46.91	28.96**	.11
Team Effectiveness	45.72	2	22.86	15.51**	.06
Social Effectiveness	23.07	2	11.53	2.72	.01
Instrumental Outcomes					
Social Influence	109.47	2	54.73	33.36**	.12
Instrumental Effectiveness	151.34	2	75.67	39.38**	.14
Anticipated Leadership	80.34	2	40.17	12.73**	.05

Note. N = 469.
*p < .05; **p < .01.

Table 6

Means and Standard Deviation for Leadership Outcomes by Assertiveness Conditions

Leadership Outcomes	Low Assertiveness *(M, SD*)	Moderate Assertiveness *(M, SD)*	High Assertiveness *(M, SD)*
Social Outcomes			
1. Managing Conflict	4.31	4.94	3.84
	(1.04)	(1.23)	(1.50)
2. Team Effectiveness	4.71	5.21	4.46
	(1.16)	(1.18)	(1.29)
3. Social Effectiveness	4.09	4.60	4.19
	(2.07)	(2.01)	(2.07)
Instrumental Outcomes			
1. Social Influence	3.59	4.58	4.64
	(1.24)	(1.28)	(1.30)
2. Instrumental Effectiveness	3.94	4.93	5.30
	(1.56)	(1.40)	(1.14)
Anticipated Leadership	3.76	4.76	4.30
N	(.1.73)	(1.79)	(1.79)

Note. The higher the mean, the more favorable the rating. Ratings were done on 7-point scales.

Table 7

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

Effectiveness

Variable	SS	df	MS	F	η^2
Managing Conflict					
Assertiveness (A)	81.42	2	40.71	47.11**	.16
LMX quality (B)	344.94	1	344.94	399.18**	.46
A X B	10.79	2	5.39	6.24*	.02
Error	400.08	463	.86		
Instrumental Effectiveness					
Assertiveness (A)	154.76	2	77.38	59.27**	.20
LMX quality (B)	275.81	1	275.81	211.27**	.31
A X B	11.15	2	5.57	4.27*	.01
Error	604.42	463	1.30		

Note. Assertiveness $N = 469$. LMX $N = 469$.
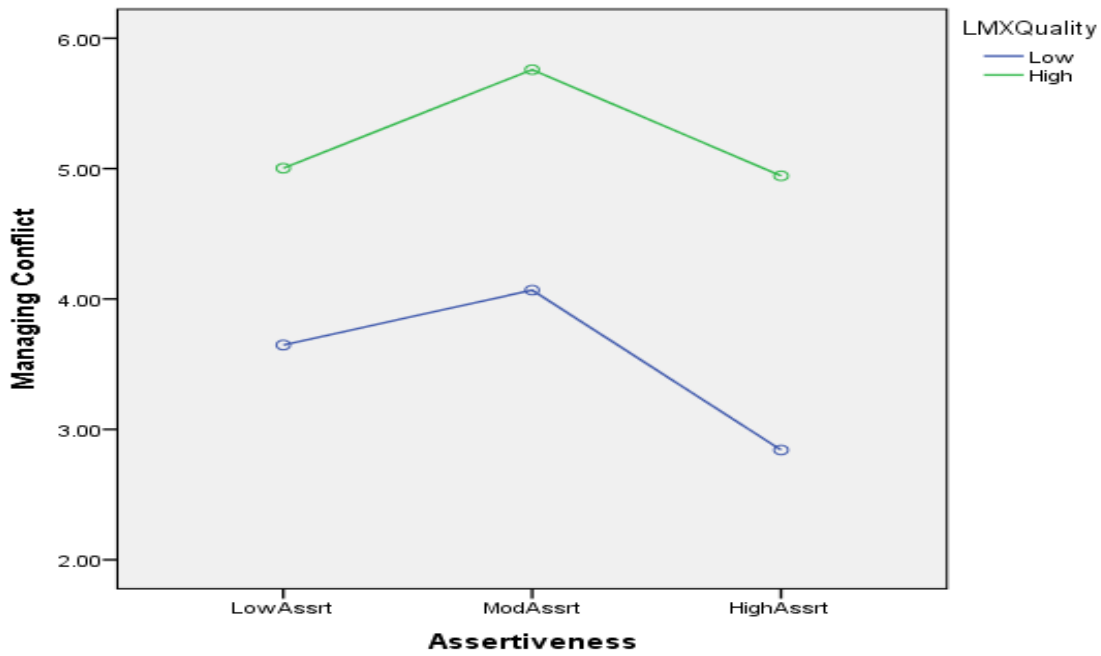
$*p < .05; **p < .01$.

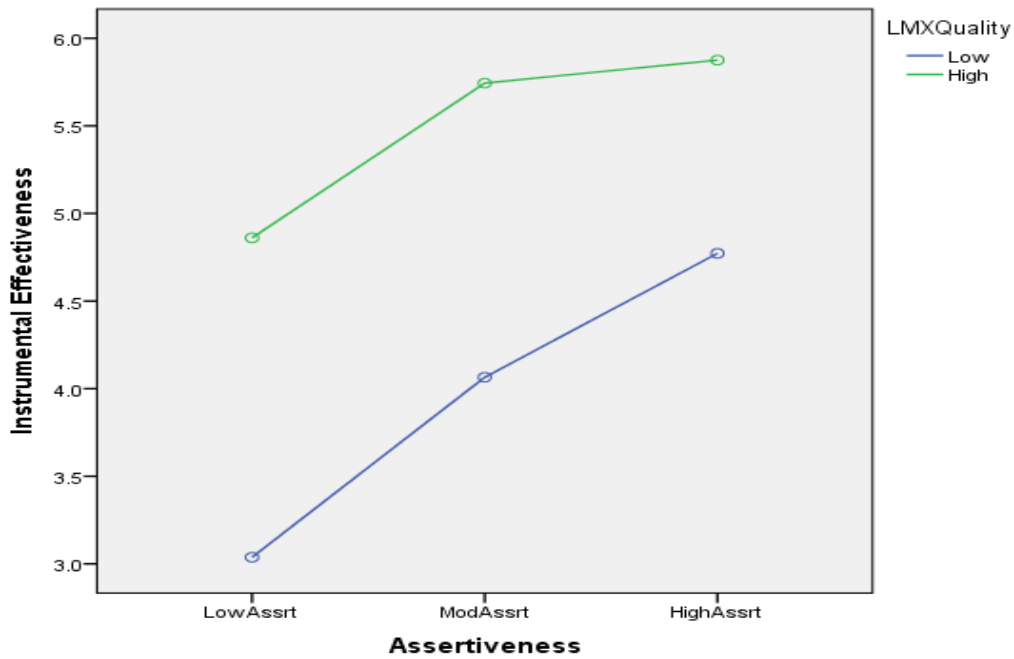*Figure 1*. Assertiveness X LMX interaction on managing conflict.

Figure 2. Assertiveness X LMX interaction on instrumental effectiveness.