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Leaders' managerial assumptions and transformational leadership: the moderating role of gender

Leaders'
managerial
assumptions

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Abstract

Purpose – Although McGregor's Theory X and Y holds significant attention in literature, research on the managerial assumptions and leadership is very scarce. The purpose of this paper is to examine the influence of a leader's Theory X and Y managerial assumptions on follower perceptions of transformational leadership behaviors and the moderating role of the leader's gender in this relationship.

Design/methodology/approach – A total of 108 leaders provided ratings of their Theory X and Y managerial assumptions; 398 followers then rated their leaders' transformational leadership behavior. To test the hypotheses, moderated hierarchical regression analysis was conducted.

Findings – The results indicated that a leader's Theory Y managerial assumptions are positively related to the followers' ratings of transformational leadership behavior while a leader's Theory X managerial assumptions are negatively related to the ratings of transformational leadership behavior. Furthermore, the relationship between Theory Y managerial assumptions and ratings of transformational leadership behavior are stronger for female leaders than male leaders.

Originality/value – This study provides important insights for leadership literature by depicting how cognitive mental schemas (i.e. Theory X and Y assumptions) and gender influence their transformational leadership behaviors.

Keywords Gender, Transformational leadership, Theory Y, Theory X

Paper type Research paper

Introduction

A recent PsycINFO (2015) search indicated that 3,008 papers have been published on the transformational leadership since 1985. The number of studies on transformational leadership is greater than on all other leadership theories and models. Apparently, transformational leadership has, over the years, received a continuing interest from scholars because it has been linked to key outcomes such as follower motivation and satisfaction, leader effectiveness, and organizational performance (Judge and Piccolo, 2004). While scholars have learned a lot about its outcomes, relatively little research has been devoted to its antecedents (Avolio *et al.*, 2009; Bommer *et al.*, 2004). Previous studies revealed that the leader's locus of control (Howell and Avolio, 1993), Machiavellianism and narcissism (Deluga, 1997, 2001), proactive personality (Crant and Bateman, 2000), the Big Five traits (Bono and Judge, 2004), and participation in meaningful relationships (Trepanier *et al.*, 2012) positively influenced transformational leadership behaviors. Although McGregor (1966) contended that a leader's view of human nature influences his or



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her leadership style and behaviors, only one research (Pastor and Mayo, 2008) has tested the relationship between a leader's Theory X and Y managerial assumptions and his/her transformational leadership behaviors.

Since the introduction of Theory X and Y over a half century ago, it continues to hold significant attention in the management literature. For example, it was ranked second in terms of recognition among 73 organizational behavior theories (Miner, 2003). Moreover, the fellows of the *Academy of Management* voted his book, *The Human Side Enterprise*, as the fourth most influential management book in the last century (Bedeian and Wren, 2001). Notwithstanding this recognition, empirical research on Theory X and Y managerial assumptions has been limited due to several reasons. For a relatively long time, there was not a valid and reliable instrument to measure the construct (Kopelman *et al.*, 2008). It has also been criticized for ignoring the impact of environmental factors (Thomas and Bennis, 1972) and being too simple and undeveloped (e.g. Bobic and Davis, 2003; Morse and Lorsch, 1970; Reddin, 1969).

Despite these criticisms, recent studies revealed that Theory X and Y managerial assumptions may serve as a predictor of a leader's communication style (Sager, 2008), a leader's propensity for participative decision making (Russ, 2011), the quality of exchange relationships between a leader and a follower (Şahin, 2012a), and a follower's satisfaction and affective commitment (Gürbüz *et al.*, 2014). Pastor and Mayo (2008) found that self-ratings of transformational leadership are associated with a Theory Y philosophy of management. In addition, Schein (2011) called for more research on Theory X and Y managerial assumptions. All of this research suggests that an examination of Theory X and Y managerial assumptions as a possible predictor of leadership behavior is still relevant.

In a different vein, gender is one of the most researched demographic variables in the assessment of various leadership theories (Barbuto *et al.*, 2007). Male and female leaders may be viewed differently due to stereotypes and expectations. Generally, males are perceived as being assertive, dominant, confident, and aggressive whereas females are expected to be gentle, demure, and nurturing (Heilman and Okimoto, 2007; Duehr and Bono, 2006; Eagly and Karau, 2002; Koenig *et al.*, 2011). Meta-analytic studies indicated that females adopt a more democratic and transformational style in their leadership than do males (Eagly *et al.*, 2003; Eagly and Johnson, 1990; van Engen and Willemssen, 2004). However, several researchers have suggested the use of more robust research designs for identifying the role of gender in relation to leadership behavior (e.g. Eagly *et al.*, 2003; Leithwood and Jantzi, 1997; Lewis, 1998).

In sum, individuals have managerial assumptions regarding human nature that may guide their choice of different leadership styles. McGregor (1966) postulated that Theory X and Y managerial assumptions and beliefs about human nature can result in autocratic/directive or democratic/participative leadership behavior. In line with this thinking, we expect that managerial assumptions will influence leadership ratings even more than gender. It may be that the inconsistent findings involving the association between gender and leadership in these studies could be due to the masking of gender effects by a multiplicity of other influences on leadership ratings. Perhaps, one of these robust influences is managerial assumptions about human nature.

Both managerial assumptions and gender are the focus of the present study. We test the conceptual relationships depicted in Figure 1. We aim to investigate the relationships between Theory X and Y managerial assumptions and transformational leadership behaviors and the moderating role of the leader's gender on the predicted relationship. More specifically, this study provides an empirical test of how a leader's managerial assumptions and gender interact to influence their transformational leadership behaviors, as perceived by the followers. Such a study might yield important contributions in several ways. It may deepen our understanding of how leaders' cognitive mental schemas (i.e. Theory X and Y assumptions) and gender influence their preferred leadership behaviors. Scholars can then develop new theoretical

models of transformational leadership, including a previously overlooked antecedent (i.e. managerial assumptions). The present study might also aid the practitioners' understanding of mental frames and assumptions that underlie leadership behaviors.

Theoretical rationale and hypothesis development

Theory X and Theory Y

McGregor (1960) proposed that managers have two sets of assumptions about their subordinates: Theory X and Y. Managers possessing a Theory X orientation assume that a typical subordinate holds unfavorable opinions about work, finds work to be aversive, avoids taking responsibility for organizational results, is risk averse, is unmotivated, is incapable of self-direction, needs top-down direction, and must be forced to work (McGregor, 1960, 1966; McGregor and Cutcher-Gershenfeld, 2006). Theory X managers are inclined to assume that subordinates must be "controlled, directed (or), threatened with punishment to get them to put forth the adequate effort toward the achievement of organizational objectives" (McGregor, 1960, p. 34).

In contrast, managers with Theory Y orientation assume that followers inherently like to work, exhibit self-direction on the job, take responsibility for work performed, generate creative solutions to organizational problems, and are committed to maximize their outputs (McGregor, 1960, 1966; McGregor and Cutcher-Gershenfeld, 2006). McGregor (1960) further suggested that Theory Y managers maintain optimistic views of employees and display more participative leadership styles with management practices that encourage internal motivation and participative decision making.

There is some research that has examined how managers' Theory X and Y assumptions serve as predictors of workplace outcomes. Sager (2008) organized this body of research in three different categories: behavioral, cognitive, and affective outcomes. We will now present each set of outcomes in detail.

Behavioral outcomes. Previous research confirms the relationship between Theory X and Y assumptions and behavioral outcomes. Fiman (1973) found that subordinates perceived Theory Y managers to be more considerate than Theory X managers. He also confirmed that Theory X managers are more inclined to exhibit initiating structure behavior. Neuliep (1987) found that Theory X managers choose anti-social strategies (i.e. deceit, aversive stimulation, and threat) while Theory Y managers choose pro-social influence tactics (i.e. ingratiation and esteem).

Larsson *et al.* (2007) found that managers with a Theory X mindset are regarded as less effective leaders with their subordinates experiencing more health issues (e.g. absent more often due to sickness). In contrast, managers with a Theory Y mindset tended to have subordinates who experienced better health outcomes. Sager (2008) explored the possibility that Theory X and Y assumptions predict various communication styles. His findings revealed that Theory X assumptions are positively associated with a more dominant

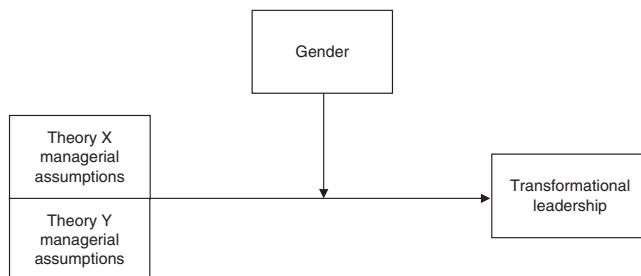


Figure 1.
Conceptual model of
the relationships
between Theory X
and Y,
transformational
leadership, and gender

communication style. In contrast, Theory Y assumptions were found to be negatively related to an anxious communicator style and positively linked to supportive and non-verbally expressive communication styles. In a more recent study, Gürbüz *et al.* (2014) found that possessing Theory Y assumptions is positively associated with subordinates' organizational citizenship behavior while possessing Theory X assumptions is not associated with citizenship behavior.

Cognitive outcomes. Scholars have sought a connection between the Theory X and Y assumptions and cognitive outcomes. For example, Neuliep (1996) investigated the impact of a manager's Theory X and Y assumptions on perceptions of ethical behavior. He reported that Theory X and Y managers did not differ significantly in the degree to which they judged ethical and unethical behaviors. However, Neuliep did find that the managers with a Theory X orientation regarded unethical behaviors to be more effective than did managers with a Theory Y orientation. In a more recent study, Russ (2011) explored the effect of a manager's Theory X and Y assumptions on participative decision making. He reported that higher scores on the Theory Y scale predict a manager's propensity to judge participative decision making to be effective in organizational strategy. Russ also found that, relative to Theory Y managers, Theory X managers perceive participative decision making to be threat to their power.

Affective/attitudinal outcomes. Fiman (1973) examined the link between supervisors' Theory X and Y assumptions and five facets of subordinate satisfaction (i.e. satisfaction with supervisor, work, people, pay, and promotion). He reported that each of the five facets of subordinate satisfaction is positively related to their perceptions of the supervisor holding Theory Y assumptions. Contrary to Fiman's (1973) findings, Brown and Ladawan (1979) reported that subordinates' level of satisfaction is unrelated to a manager's Theory X and Y orientation.

In a recent study, Şahin (2012a) observed that Theory Y managerial assumptions are positively associated with the subordinate's affective commitment to organization and the quality of leader-member exchange relationship. More recently, Gürbüz *et al.* (2014) employed a multi-level research design and tested the link between leaders' Theory X and Y orientations and subordinates' satisfaction with the leader and affective commitment. They found that the Theory Y management style is positively associated with the subordinate's satisfaction with the leader and affective commitment. Gürbüz and his colleagues also reported that the Theory X management style had a negative impact on the subordinate's satisfaction with the leader but had no effect on affective commitment.

Transformational leadership

Since its introduction by Burns (1978) and Bass (1985), transformational leadership has included four leader behaviors: inspirational motivation, idealized influence, individual consideration, and intellectual stimulation (Bass, 1985; Bass and Avolio, 1990). Inspirational motivation involves the communication of a compelling vision and the use of symbols to articulate this vision. Idealized influence refers to leaders who engage in charismatic actions, discuss important values and beliefs, and focus on the benefits of the group instead of the individual. Individualized consideration includes coaching, supporting, and understanding of followers as well as recognizing their unique developmental needs. Finally, intellectual stimulation involves the challenging of followers to see problems from different perspectives, pushing them to develop innovative strategies (Bass, 1985).

Based on Podsakoff *et al.*'s (1990) categorization, Carless *et al.* (2000) suggested an expanded list of behaviors in the transformational leadership concept: "(i) communicates a vision, (ii) develops staff, (iii) provides support, (iv) empowers staff, (v) is innovative, (vi) leads by example, and (vii) is charismatic" (p. 390). They developed a seven-item

global transformational leadership (GTL) scale to assess this broader range of transformational leader behaviors. In the present study, we have used Carless *et al.*'s operationalization to measure transformational leadership. The GTL scale was preferred because of its brevity and unidimensionality. Moreover, several researches (e.g. Lowe *et al.*, 1996) indicated that the subscales of the Multifactor Leadership Questionnaire (MLQ) are highly correlated.

Predictors of transformational leadership. Our study investigates whether a leader's Theory X and Y assumptions serve as significant cognitive determinants of transformational leadership behavior as rated by the leader's followers. The role of the leaders' gender in moderating this association between Theory X and Y assumptions and leader behavior is also considered. To our knowledge, no studies have explored these research questions. Over the past couple of decades, researchers have learned a great deal about the impact of transformational leadership behaviors on important outcomes such as job satisfaction and organizational performance (see Judge and Piccolo, 2004). In fact, transformational leadership research has focused more on outcomes than predictors (Avolio *et al.*, 2009). Relatively little is known about dispositional, cognitive, and contextual antecedents of leaders' transformational leadership behaviors.

Atwater and Yammarino (1993) reported that personal attributes (i.e. intelligence, warmth, conformity, sensing/intuition, thinking/feeling, emotional coping, and athletic experience) accounted for 28 percent of the variance in ratings of transformational leadership behavior. Howell and Avolio (1993) discovered that a leader's internal locus of control is associated with intellectual stimulation and individualized consideration. Crant and Bateman (2000) suggested that self-reported proactive personality is positively related to the supervisor's ratings of their charismatic leadership. Somewhat ominously, Deluga (1997, 2001) found that Machiavellianism and narcissism are positively associated with presidential charismatic leadership behavior.

In their meta-analysis, Bono and Judge (2004) found that four of the Big Five traits (i.e. extraversion, neuroticism, openness, and agreeableness) are significantly related to transformational leadership. Bommer *et al.*'s (2004) findings revealed that managers who are highly cynical about organizational change are less likely to engage in transformational leadership behaviors. Sosik (2005) discovered that the more traditional values, such as collectivism, self-transcendence, and self-enhancement, are positively related to charismatic leadership. Trépanier *et al.* (2012) reported that leaders, who believe they participate in meaningful relationships at work, tend to view themselves as transformational leaders, inspiring and imparting a sense of mission to others.

Linking Theory X and Y assumptions to transformational leadership

Building on implicit followership theories (IFTs) (e.g. Sy, 2010), the present study explores the predictive influence of Theory X and Y assumptions on a leader's transformational leadership behavior. IFTs provide a theoretical justification for this proposed relationship. IFTs are described as "individuals' personal assumptions about the traits and behaviors that characterize followers" (Sy, 2010, p. 74). In a similar vein, individuals in leadership roles may choose behaviors based on their implicit assumptions about human nature. Likewise, Eden (1990) argued that a leader's performance and behavior expectations are influenced by their own implicit follower theories. From this perspective, we posit that leaders establish mental schemas of follower attributes that are based on their Theory X and Y managerial assumptions. Subsequently, these cognitive schemas and corresponding assumptions might characterize leader behaviors toward followers.

Specifically, leaders who establish their mental schemas around Theory Y assumptions are more likely to maintain optimistic views of followers and display participative leadership

styles with practices that foster internal motivation and participative decision making (McGregor and Cutcher-Gershenfeld, 2006). Theory Y leaders assume that their followers are intrinsically motivated to satisfy higher-order needs for esteem and self-actualization (McGregor, 1960). They believe that a follower “will exercise self-direction and self-control in the service of objectives to which he is committed” (McGregor, 1960, p. 47). Sabanci (2008) indicated that a leader who holds Theory Y assumptions tends to demonstrate a relationship-oriented, democratic leadership style. Thus, holding Theory Y managerial assumptions is expected to influence a leader’s transformational leadership behaviors.

Prior studies have confirmed that a leader’s Theory Y managerial assumptions are a significant predictor of leader-related outcomes. For example, Pastor and Mayo’s (2008) study indicated that ratings of transformational leadership are associated with a Theory Y philosophy of management. Sager (2008) found that Theory Y assumptions are positively related to supportive, non-verbally expressive communicator styles of leaders. Russ (2011) reported that Theory Y managers perceive a positive consequence from participative decision making on their power and organizational effectiveness. Şahin (2012a) discovered that Theory Y managerial assumptions are positively associated with the quality of leader-member exchange relationships. Sager (2015) found that a Theory Y orientation is a significant predictor of the superior’s downward maintenance communication. Based on these arguments, it is plausible that there is a positive relationship between a leader’s Theory Y assumptions and their transformational leadership behavior. This proposition is more formally expressed in the following hypothesis:

H1. The leader’s Theory Y managerial assumptions will be positively related to followers’ reports of the leader’s transformational leadership behavior.

Leaders who establish mental schemas in line with Theory X assumptions are more likely to assume that a follower “prefers to be directed, wishes to avoid responsibility, has relatively little ambition, and wants security above all” (McGregor, 1960, p. 34). Theory X leaders are inclined to motivate employees using extrinsic rewards, emphasize close supervision of employees, and rely on the chain of command (McGregor, 1960).

Because Theory X leaders assume that their followers are not capable of self-direction and self-control, they may feel a greater need to assert control over their followers. Sabanci (2008) indicated that a leader who holds Theory X assumptions may tend to demonstrate a task-oriented, autocratic leadership style. Similar to this claim, Sager (2008) found a positive relationship between Theory X managerial assumptions and the leader’s dominant communication style. Russ (2011) reported that participative decision making is perceived by Theory X leaders as having a negative impact on their power. Based on these arguments, it is plausible that there is a negative relationship between a leader’s Theory X assumptions and their transformational leadership behavior. This proposition is expressed in the following hypothesis:

H2. The leader’s Theory X managerial assumptions will be negatively related to followers’ reports of the leader’s transformational leadership behavior.

Moderating role of gender

According to social role theory (e.g. Eagly, 1987; Eagly *et al.*, 2000), individuals behave in ways that conform to the societal expectations of the gender role. Based on social roles, females are traditionally expected to be communal and warm; males are expected to be agentic and competent (e.g. Duehr and Bono, 2006; Eagly and Karau, 2002; Heilman and Okimoto, 2007; Heilman *et al.*, 1989, 1995; Koenig *et al.*, 2011). Historically, effective leadership was thought to require more masculine agentic qualities (e.g. Brenner *et al.*, 1989; Schein, 1973, 2007; Powell and Butterfield, 1979, 1984, 1989).

Eagly and Johnson's (1990) meta-analysis showed that there are significant gender differences in demonstrating democratic, participatory leadership styles in three types of research settings (laboratory, assessment, and organizational studies). That is, females tended to use democratic, participative leadership styles whereas males tended to use autocratic, directive leadership styles. Eagly and Johnson also reported that females had a more interpersonal style than males. Note that there were no gender differences detected in the three research settings.

Eagly and Karau (1991) conducted a follow up meta-analysis on leader emergence in small groups. They found that when a group was formed without leadership, males tended to emerge as leaders more often than did females. However, relative to males, females emerged more often as a "social leader" who contributed to interpersonal relations. Eagly *et al.* (1995) suggested that the fit between leadership position and gender has an impact on leadership effectiveness. In a cross-cultural study assessing gender preferences in leadership prototypes (Paris *et al.*, 2009), findings indicated that, relative to male leaders, females prefer participative, team-oriented, and charismatic leadership dimensions. Taken altogether, the previous literature suggests that feminine leadership styles are characterized by consideration, an interpersonal orientation, and democratic relationships whereas masculine leadership styles are characterized by instrumentality, a task orientation, and autocratic relationships (Appelbaum *et al.*, 2003; Cuadrado *et al.*, 2012; Eagly and Johannesen-Schmidt, 2001; Eagly and Johnson, 1990).

Furthermore, past studies focused on examining gender differences in transformational leadership behavior. Several studies, employing multiple raters in their research designs, showed that females were perceived to exhibit more transformational leadership behaviors in the work setting than did males (e.g. Bass *et al.*, 1996; Carless, 1998; Doherty, 1997; Druskat, 1994; Rosener, 1990). Note that there have been studies detecting no gender differences in transformational leadership behavior (e.g. Brown and Reilly, 2008; Komives, 1991; Maher, 1997; Mandell and Pherwani, 2003; Manning, 2002). Eagly *et al.*'s (2003) meta-analysis revealed that female leaders are generally more transformational than are male leaders; they also engage in more contingent reward behavior than males.

Researchers have devoted considerable attention to gender differences in leadership styles. In the present study, we focus on the moderating role of a leader's gender in affecting the relationship between managerial assumptions and transformational leadership behavior. A dominant approach in explaining the influences of a leader's gender on a leadership style is Calder's (1977) social cognition perspective. This theory proposes that leadership is a social interaction in which the followers are observers of leaders. According to the social cognitive approach, when followers observe their leader performing a behavior and the consequences of that behavior, they remember the schemas that guide their judgments. The leadership schema that consists of masculine or agentic characteristics is fairly robust in the gender-leadership literature (Eagly and Karau, 2002; Powell, 1999). Based on the social cognition perspective (Calder, 1977) and in line with societal expectations of the gender role in leadership (e.g. Carli and Eagly, 2011; Eagly *et al.*, 2000), we expect that gender will have a main effect on followers' perception of the leader's transformational leadership behavior. We also expect that the effects of managerial assumptions on followers' perception of the leader's transformational leadership behavior will be moderated by leader's gender. Despite its link with transformational leadership behavior (Eagly *et al.*, 2003), there has been no empirical research on the moderating role of gender on the relationship between Theory X and Y managerial assumptions and transformational leadership behavior. As discussed earlier, leaders with a Theory Y mindset tend to have positive, optimistic views of subordinates and display more participative leadership styles that encourage internal motivation and intrinsic rewards (McGregor, 1960, 1966; McGregor and Cutcher-Gershenfeld, 2006). Moreover, previous studies indicated that

Theory Y assumptions are positively related to supportive and non-verbally expressive communicator styles of leaders (Sager, 2008), the quality of leader-member exchange relationships (Şahin, 2012a), and relationship-oriented and democratic leadership styles (Sabancı, 2008). These findings support the idea that the resulting leadership style from Theory Y managerial assumptions should coincide with feminine leadership styles (i.e. interpersonally oriented, considerate, and democratic). Thus, female leaders with a Theory Y mindset should demonstrate more transformational leadership behavior than male leaders.

In contrast, leaders with Theory X mindsets tend to have a negative, pessimistic view of subordinates and display more coercive, autocratic leadership styles using external means of controls (McGregor, 1960, 1966; McGregor and Cutcher-Gershenfeld, 2006). Previous studies showed that Theory X assumptions are positively related to a domineering communication style of the leader (Sager, 2008), health outcomes (e.g. sickness absence; Larsson *et al.*, 2007), and negatively related to the subordinate's satisfaction with the leader (Gürbüz *et al.*, 2014). Russ (2011) also found that managers with the Theory X orientation perceive participative decision making to be threat to their power. As expected, a leader who holds the Theory X assumptions may tend to demonstrate the characteristics of task-oriented, autocratic leadership style (e.g. Sabancı, 2008) which coincides with a masculine leadership style (i.e. instrumental, task-oriented, and autocratic). Thus, a negative relationship between Theory X managerial assumptions and transformational leadership behavior should be stronger for male leaders than female leaders. Considering this literature, it is plausible that there may be two-way interactions between Theory X and Y managerial assumptions, transformational leadership, and gender. These predictions are expressed in the following hypotheses:

- H3. The positive relationship between a leader's Theory Y managerial assumptions and the followers' ratings of their leader's transformational leadership behavior is moderated by gender, with the relationship being stronger for female leaders than male leaders.
- H4. The negative relationship between a leader's Theory X managerial assumptions and the followers' ratings of their leader's transformational leadership behavior is moderated by gender, with the relationship being stronger for male leaders than female leaders.

Method

Sample and procedure

We tested our hypotheses with multi-source field data collected from Turkish employees and their direct supervisors who work in 19 different organizations in the education and manufacturing sectors. In general, educational organizations are considered to be feminine, occupied by more females than males; therefore, we tried to include approximately the same number of male and female leaders from two sectors in our study and to have at least three subordinates per leader. The sample consisted of 108 managers and 398 subordinates from various organizations employed in 14 educational institutions and five manufacturing firms in Turkey. These organizations were of varying sizes, ranging from 16 to 212 employees. Of the 108 managers, 50 (46.3 percent) were affiliated with educational institutions and 58 (53.7 percent) were affiliated with manufacturing organizations.

We collected data in the 2012-2014 time period. The questionnaires were distributed at the work sites; the respondents received these questionnaires in person. After completing the questionnaire, the respondents were asked to mail them to the authors via prepaid envelopes. A cover letter explained the purposes of the study and guaranteed anonymity of responses. Participation in the study was voluntary. We used two sets of questionnaires: one for managers and the other for their immediate subordinates. Data on managerial

assumptions were obtained through the questionnaires directed at the managers. Data on the perception of the manager's transformational leadership behavior were obtained from the questionnaire responses of the manager's immediate subordinates. We matched two sets of questionnaires using identification numbers. We distributed a total of 300 manager questionnaires and 850 subordinate questionnaires. Altogether, 116 completed questionnaires were returned by managers and 461 were collected from their subordinates. Because of missing data or incorrect markings in eight managers' questionnaires and 63 subordinates' questionnaires, we excluded them from the analysis. Finally, we obtained 108 usable managerial questionnaires and 398 immediate subordinate questionnaires, yielding a 36 percent response rate for managers and a 46.8 percent response rate for subordinates.

Of the 108 managers, 50.9 percent were female. The average age of the managers was 39.21 years (ranging from 26 to 55), mean length of time with the organization was 17.61 years, and average staff size was nine individuals. Most of the managers (71.3 percent) held a bachelor's degree and the remaining held a graduate degree. Of the 398 subordinates, 38.7 percent were female. Their average age was 31.11; they had been with the organization for about ten years and worked, on average, with their current manager 3.79 years. Educational levels among subordinates ranged from a high school diploma (24.1 percent) to a bachelor's degree (65.3 percent) to a graduate school degree (10.6 percent).

Results of the paired comparison test indicated no significant differences in the Theory Y managerial assumptions ($t = -1.47$, $df = 106$, $p = 0.14$) and the Theory X managerial assumptions ($t = -0.19$, $df = 106$, $p = 0.84$) between leaders from educational institutions and those from organizations in the manufacturing sector. Moreover, for the 19 organizations in educational and manufacturing sectors, there was not a statistically significant difference in the theory Y managerial assumptions ($F(1, 17) = 2.79$, $p = 0.11$) and in the Theory X managerial assumptions ($F(1, 17) = 0.03$, $p = 0.86$).

Measures

McGregor's Theory X and Y. We measured managers' philosophy of management by using eight items from the Theory X and Y scale adapted from the scale developed by Kopelman *et al.* (2008) and Kopelman *et al.*, (2010, 2012). The scale has two dimensions; four items measuring Theory Y attitudes and assumptions and four items measuring Theory X attitudes and assumptions. An example of item for the Theory Y scale is "For most people, work is as natural as play or recreation" and an example of item for the Theory X scale is "Most employees can't be trusted." Responses to the items were measured with a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). A higher score indicated that the manager held either the Theory Y or the Theory X attitudes and assumptions in a work setting. The scale was adapted and validated into the Turkish context previously (e.g. Şahin, 2012a). The reliabilities of the scales (Cronbach's α) were 0.74 for the Theory Y and 0.76 for the Theory X.

Transformational leadership. To assess the dependent variable, we used seven-item GTL by Carless *et al.* (2000) for subordinates' rating of their managers' leadership. Although MLQ (Bass and Avolio, 1995) is one of the most widely used instruments to measure transformational and transactional leaders' behaviors in the leadership studies, the GTL scale was preferred because of its brevity and clear unidimensionality. Moreover, several researches indicated that the subscales of the MLQ are highly correlated (e.g. Lowe *et al.*, 1996), which leads to a strong argument for employing a shorter global measure of transformational leadership. In addition, the GTL scale has shown a high degree of convergent validity in relation to lengthier questionnaires such as the MLQ and the Leadership Practices Inventory (Carless *et al.*, 2000) and has been well-validated (Tucker *et al.*, 2006). Together the seven items of the GTL scale are designed to represent

a global measure of transformational leadership. An example of an item is “My immediate supervisor fosters trust, involvement and cooperation among team members.” To measure behavioral frequency, the subordinates responded on a five-point Likert-type scale ranging from 1 (rarely or never) to 5 (very frequently). The scale was adapted and validated in the Turkish context by Şahin (2012b). In the present study, the reliability of the GTL scale (Cronbach’s α) was 0.95.

Control variables. Based on the leadership literature, we controlled for managers’ age, tenure, education, number of subordinates, international experience, and type of organization. The findings of previous studies on the relationship between age and transformational leadership are too inconsistent to draw unambiguous conclusions (Walter and Scheibe, 2013). However, age may have effect on leaders’ managerial attitudes and assumptions because formative years in the work setting may affect and contribute to positive development in attitudes and assumptions regarding leadership and motivation (Pastor and Mayo, 2008). Education level of managers may have effect on managerial attitudes and assumptions and leadership styles. For example, Holton and Lynham (2000) argued that formal education (e.g. MBA) plays a key role in managerial leadership development. Studies on leadership have also pointed to the influence of organizational factors (e.g. size) on leadership (e.g. House and Aditya, 1997). More specifically, previous studies (e.g. Coglisier and Schriesheim, 2000; Schriesheim *et al.*, 2000) indicated that when a work unit increases in size, the relationships between managers and their subordinates become less positive (low-quality leader-member exchange). Since exposure to other cultures offers individuals the opportunity to experience a wider range of styles and values to motivate subordinates (e.g. Carpenter *et al.*, 2001), international experience may have effect on leadership styles, and thus, effectiveness. Finally, since educational organizations are considered to be feminine and occupied by more females than males (Paustian-Underdahl *et al.*, 2014), we controlled for this to avoid the results being biased due to the type of organization.

Analytical strategy

Our data set had a hierarchical structure with individuals (i.e. subordinates) nested within groups (i.e. managers). Because the dependent variable in the present study (i.e. subordinates’ perception of transformational leadership) is considered to be on different levels of analysis, hierarchical linear modeling (HLM) should be employed for our analyses (Raudenbush and Bryk, 2002). To test the cross-level associations among variables on the different levels of analysis, there had to be significant between-group variance in subordinates’ perception of transformational leadership. Thus, using HLM, we estimated a null model to test the significant level of subordinates’ perception of transformational leadership behavior.

The χ^2 estimates for the amount of variation in the changes in subordinates’ perception of transformational leadership was not significant ($\chi^2 = 118.08$; $df = 107$; $p = 0.218$). Given our preliminary results, we aggregated individual-level data (subordinates’ perception of transformational leadership, $n = 398$) to group level (managers, $n = 108$) to test our hypothesis. Multiple statistics were calculated to justify the aggregation of subordinates’ perception of transformational leadership to the group level. For the seven-item measure of transformational leadership, we calculated ICC (1) = 0.31 and ICC (2) = 0.83. These statistics probably indicates that approximately 31 percent of the variance in subordinates’ perception of transformational leadership can be accounted for by group membership. Nevertheless, based on the group mean transformational leadership score with an estimated reliability of 83 percent, groups can be differentiated from one another. We calculated r_{wg} , a measure of within-group agreement on a scale, as 0.89 (e.g. James, 1982; James *et al.*, 1984; LeBreton and Senter, 2008).

We used IBM SPSS Statistics for Windows (Version 22.0., IBM Corp, Armonk, NY) for data analysis. Moderated hierarchical regression analysis was utilized to test the hypothesis.

Leaders'
managerial
assumptions

Results

Table I presents the descriptive statistics and correlations among the study's variables. Managers' age ($r = 0.22$, $p < 0.05$), tenure with the organization ($r = 0.23$, $p < 0.05$), and international experience ($r = 0.30$, $p < 0.01$) were positively and significantly correlated with subordinates' perception of transformational leadership. Considering managers' philosophy of management, the correlation between the Theory X and Theory Y managerial assumptions ($r = -0.22$, $p < 0.05$) is consistent with previous research in this area (e.g. Gürbüz *et al.*, 2014). In addition, Theory X managerial assumptions were negatively and significantly correlated with transformational leadership ($r = -0.48$, $p < 0.01$) while Theory Y managerial assumptions were positively and significantly correlated with transformational leadership ($r = 0.61$, $p < 0.01$).

Hierarchical moderated regression analyses were used to estimate the effects of managerial assumptions on subordinates' perception of the leader's transformational leadership and investigate whether the association between managerial assumptions and subordinates' perception of transformational leadership depends on the managers' gender. In the first step, control variables were included. In the second step, we added the main effects of our independent and moderating variables. Finally, the third step included the two-way interactions formed by crossing independent and moderating variables. Table II shows the results of the hierarchical moderated regression analyses to test our hypotheses.

In the first step, control variables accounted for a significant amount of variance in transformational leadership ratings, $R^2 = 0.155$, $F(6, 101) = 3.096$, $p < 0.01$. Although leaders' age, education level, tenure with the organization, and type of organization were not significant predictors in the final model, the number of subordinates ($b = -0.01$, $SE_b = 0.01$, $\beta = -0.15$, $t(96) = -2.262$, $p < 0.05$) and international experience ($b = 0.01$, $SE_b = 0.01$, $\beta = 0.17$, $t(96) = 2.492$, $p < 0.05$) were significant predictors of transformational leadership ratings.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Age	39.21	6.82	–									
2. Gender ^a	0.49	0.50	0.16	–								
3. Education ^b	0.28	0.45	0.09	0.19*	–							
4. Tenure	17.61	7.04	0.94**	0.10	0.08	–						
5. Number of subordinates	9.30	7.75	0.22*	0.07	–0.01	0.25**	–					
6. International experience	11.02	14.53	0.39**	0.07	0.12	0.42**	–0.02	–				
7. Type of organization ^c	0.46	0.50	–0.03	0.20*	0.68**	–0.07	0.01	0.09	–			
8. Theory X managerial assumptions	2.09	0.96	–0.39**	–0.38**	–0.05	–0.33**	0.01	–0.13	0.02	0.76		
9. Theory Y managerial assumptions	2.83	0.86	0.03	0.07	0.27**	0.03	0.03	0.09	0.14	–0.22*	0.74	
10. Transformational leadership ^d	3.13	0.89	0.22*	0.18	0.13	0.23*	–0.13	0.30**	0.15	–0.48**	0.61**	0.95

Notes: $n = 108$. ^a0 = female, 1 = male; ^b0 = bachelor's degree and below, 1 = graduate school degree; ^c0 = manufacturing, 1 = educational organizations; ^daggregated subordinates' ratings. The Cronbach's α 's are indicated diagonally. * $p < 0.05$; ** $p < 0.01$

Table I.
Means, standard
deviations, and
correlations among
the study variables

Table II.
Hierarchical
moderated
regression analyses
predicting
transformational
leadership

Variables	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
<i>Controls</i>									
Age	0.00	0.03	-0.03	-0.03	0.02	-0.12	-0.03	0.02	-0.12
Education level	0.02	0.15	0.01	0.04	0.18	0.11	0.04	0.18	0.12
Tenure with the organization	0.03	0.03	0.13	0.04	0.02	0.14	0.04	0.02	0.14
Number of subordinates	-0.02	0.01	-0.18	-0.02	0.01	-0.18*	-0.01	0.01	-0.15*
International experience	0.01	0.01	0.020	0.01	0.01	0.16*	0.01	0.01	0.17*
Type of organization	0.07	0.13	0.10	0.07	0.12	0.12	0.06	0.12	0.12
<i>Main effects</i>									
Theory X managerial assumptions (X)				-0.28	0.07	-0.32***	-0.30	0.07	-0.34***
Theory Y managerial assumptions (Y)				0.49	0.06	0.55***	0.65	0.09	0.73***
Gender (G)				0.04	0.12	0.02	0.03	0.13	0.01
<i>Interactions</i>									
X \times G							0.03	0.17	0.01
Y \times G							-0.27	0.12	-0.23*
R^2		0.155			0.602			0.623	
Adjusted R^2		0.105			0.565			0.580	
ΔR^2		—			0.446			0.022	
<i>F</i>		3.096**			16.438***			14.440***	
ΔF		—			36.579***			3.974*	
df		101			98			96	
Notes: $n = 108$. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$									

The leaders' Theory X and Y managerial assumptions and gender were entered in the second step. The addition of the independent and moderating variables in step 2 increased the explained variance significantly for transformational leadership ($\Delta R^2 = 0.446$, $p < 0.001$).

H1 predicted that leader's Theory Y managerial assumptions would be positively related to followers' ratings of the leader's transformational leadership behavior. As shown in Table II, the results indicated a significant and positive main effect for the Theory Y managerial assumptions on transformational leadership ($b = 0.49$, $SE_b = 0.06$, $\beta = 0.55$, $t(98) = 8.050$, $p < 0.001$). These results provide support for *H1*.

H2 stated that the leader's Theory X managerial assumptions would be negatively related to followers' ratings of the leader's transformational leadership behavior. The results shown in Table II revealed a significant and negative main effect for the Theory X managerial assumptions ($b = -0.28$, $SE_b = 0.07$, $\beta = -0.32$, $t(98) = -4.180$, $p < 0.001$). Thus, *H2* was supported.

In the final step of the regression analysis, interaction terms accounted for a significant proportion of the variance in transformational leadership ($\Delta R^2 = 0.022$, $p < 0.001$). *H3* proposed that gender would moderate the positive relationship between the Theory Y managerial assumptions and transformational leadership such that the relationship would be stronger for female leaders than for male leaders. The interaction between the Theory Y managerial assumptions and gender was significant ($b = -0.27$, $SE_b = 0.12$, $\beta = -0.23$, $t(96) = -2.199$, $p < 0.05$), suggesting that the effect of the Theory Y managerial assumptions on transformational leadership depended on gender. Following the recommendations by Aiken and West (1991), we further probed the significant interaction effects by computing the simple slopes for male and female leaders' scores of Theory Y managerial assumptions. Each of the simple slope tests revealed a significant positive association between the Theory Y managerial assumptions and transformational leadership, but the Theory Y managerial assumptions was more strongly related to transformational leadership for female leaders ($b = 0.81$, $SE_b = 0.09$, $\beta = 0.83$, $t = 6.959$, $p < 0.01$) than for male leaders

($b = 0.51$, $SE_b = 0.09$, $\beta = 0.48$, $t = 5.430$, $p < 0.01$). The significant interaction between the Theory Y managerial assumptions and gender predicting transformational leadership is displayed in Figure 2. In sum, $H3$ was supported.

Last, $H4$ predicted that gender would moderate the negative relationship between the Theory X managerial assumptions and transformational leadership such that the relationship would be stronger for male leaders than for female leaders. As shown in Table II, the interaction between the Theory X managerial assumptions and gender was not significant ($b = 0.03$, $SE_b = 0.17$, $\beta = 0.01$, $t(96) = 0.184$, $p = 0.854$). Therefore, $H4$ was not supported.

Discussion

In the present study, we examined the relationships between leaders' Theory X and Y managerial assumptions and transformational leadership behavior and the moderating role of the leader's gender. The results indicated that the leader's Theory Y managerial assumptions predict followers' ratings of the leader's transformational leadership behavior. Likewise, the leader's Theory X managerial assumptions were found to have a negative relationship with the followers' ratings of the leader's transformational leadership behavior.

While gender did not have a main effect on transformational leadership, this variable did moderate the relationship between a leader's Theory Y managerial assumptions and their ratings of transformational leadership behavior. These results confirmed that the positive relationship between Theory Y managerial assumptions and transformational leadership is stronger for female leaders than for male leaders. Contrary to expectations, we did not find a moderating role of gender in the relationship between a leader's Theory X managerial assumptions and transformational leadership behavior. One potential explanation for this is that, without the comparison between their leader's gender and leadership styles, subordinates rated their leader as less transformational who demonstrates autocratic/directive leadership styles that stems from the Theory X mindset. Although previous studies showed that leaders are subject to the comparison between leadership roles and their gender roles (e.g. Scott and Brown, 2006; Wang *et al.*, 2013), several studies indicated no gender differences in leadership styles (e.g. Gibson, 1995; van Engen *et al.*, 2001; Vecchio, 2002). There are also several studies indicating that female and male leaders differed

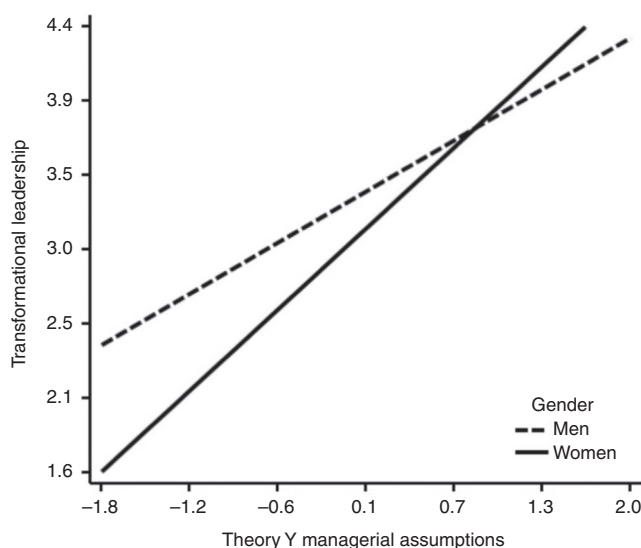


Figure 2.
Moderation of the
relationship between
the Theory Y
managerial
assumptions and
transformational
leadership by gender

significantly for several leadership behaviors. For example, Oshagbemi and Gill (2003) found significant differences between female and male leaders only on one of seven dimensions, namely, inspirational motivation. Additional research is needed to test for gender differences in leadership styles.

In addition, the study revealed a number of noteworthy relationships. First, the results showed that the number of subordinates is negatively associated with subordinate ratings of transformational leadership. This finding is in line with previous studies indicating that higher spans of control may decrease the positive effects of transformational leadership styles (e.g. McCutcheon *et al.*, 2009). Second, leaders' previous international experience was found to have a positive effect on subordinate ratings of transformational leadership. International experience offers leaders the opportunity to experience a wider range of styles and values to motivate subordinates (e.g. Carpenter *et al.*, 2001). In our study, we only measured work-related international experience; however, future research might investigate different international experiences (i.e. education, travel) and how they relate to leadership behaviors.

Theoretical and practical implications

Our study contributes to the transformational leadership and the Theory X and Y literatures in several ways. First, by examining the link between a leader's Theory X and Y assumptions and their transformational leadership behaviors, this study contributes to the scarce knowledge of the cognitive antecedents of transformational leadership. Our results showed that those leaders who establish their mental schema according to Theory Y assumptions are likely to inspire, develop, support, empower, and impart a sense of mission to followers. This finding is consistent with McGregor's (1960) assertion that a leader's view of human nature influences his or her leadership style and behaviors. Thus, we have expanded what is known about predictors of transformational leadership. We believe that such an inquiry could help scholars develop new theoretical models of transformational leadership.

Second, the present study also makes an important contribution to the Theory X and Y literature. Recent work on Theory X and Y assumptions revealed that it serves as a predictor of a leader's communication style (Sager, 2008), leader's propensity for participative decision making (Russ, 2011), the quality of leader-member exchange relationships (Şahin, 2012a), and a follower's satisfaction and affective commitment (Gürbüz *et al.*, 2014). We extended this body of research, providing evidence that a leader's Theory Y assumptions also serve as a predictor of transformational leadership behavior.

Third, this study adds to previous research by offering a potential explanation for how gender influences transformational leadership behavior. As discussed earlier, results of previous studies on the link between gender and leadership behavior are fragmented. Consequently, there has been a call for more robust study designs to identify the role of gender's impact on leadership behavior (e.g. Eagly *et al.*, 2003). We have responded this call by examining the effects of gender on the relationship between a leader's Theory X and Y managerial assumptions and transformational leadership behavior.

Our findings also point to some implications for theory development. McGregor (1960) introduced Theory X and Y over a half century ago and postulated that managerial assumptions and beliefs about human nature can cause autocratic/directive and democratic/participative leadership behaviors. To our knowledge, the present study is one of the first to provide empirical evidence for the importance of a leader's managerial assumptions affecting leadership behavior. Future theoretical work could identify additional leader cognitive prototypes of followers which might have important influences on leadership practice. For example, IFTs (Sy, 2010) refer to a leader's beliefs about followers' personal attributes and characteristics. Implicit assumptions are important for leadership because they influence the manner in which leaders interact with followers (Junker and van Dick, 2014).

Our results may contribute to the positive way that practitioners think about leadership. In general, effective leadership is characterized by enabling, participative, empowering, and distributive in nature (e.g. Bass, 1985; House and Aditya, 1997). Hence, leaders should first identify the potential advantage of adopting transformational leadership and, particularly, the underlying managerial assumptions associated with transformational leadership behaviors. We recognize that changing leadership behavior of any kind is difficult; nevertheless, some aspects of transformational leadership can be learned (Kelloway and Barling, 2000). It is sensible to encourage such leadership training. Indeed, practitioners might help leaders in becoming better aware of leadership behaviors than their managerial assumptions and beliefs. Leadership development programs usually have adopted a developmental process which includes coaching and mentoring (e.g. Day, 2001). This developmental process is likely to have impact on learning specific leadership skills and behaviors, probably without making any change in the values and beliefs system one holds (Pastor and Mayo, 2008). It seems that developmental approach in leadership training is effective in the short term to meet organizational needs.

Strengths, limitations, and future research

The present study has a number of strengths. One of the major strengths of the study is that data were gathered from both leaders (Theory X and Y assumptions) and followers (transformational leadership behaviors) to test the hypotheses, thereby lessening spurious associations due to common method bias (Podsakoff *et al.*, 2012). Moreover, our findings indicated significant interaction effect; hence, common method bias for the present study is less likely to be a matter of concern (Evans, 1985). Another strength of the present study is the diverse sample. We surveyed the respondents (i.e. leaders and followers) from several organizations in two specific sectors (educational institutions and manufacturing firms). Such a sample might contribute to the generalizability of the results.

There are some weaknesses that need to be addressed. Although we collected multi-source data, we used a cross-sectional design in the study. Without longitudinal data, it is hard to draw definitive conclusions concerning the cause-and-effect relationships. To establish causality, future research might consider a longitudinal research design examining leaders' Theory X and Y assumptions and their transformational leadership behaviors multiple times over a longer term.

Second, we used Carless *et al.*'s (2000) seven-item GTL scale to measure transformational leadership behaviors. We did not examine the full range of leadership models (i.e. transformational and transactional) and their sub-elements developed by Bass and Avolio (1990, 1995). How do leaders' Theory X and Y assumptions predict each of sub-dimensions of the full range leadership model (e.g. laissez-faire, management-by-exception, contingent rewards)? To gain a more complete understanding of the relationships among the Theory X and Y assumptions and transformational leadership, future studies should include full range leadership elements using MLQ (Bass and Avolio, 1995). Third, it may be considered a limitation that our sample was comprised of Turkish leaders and their subordinates only. We encourage future researchers to examine whether our findings generalize to leaders and followers across nationalities.

Finally, we did not include any personality variables in our study. To keep the survey short, we limited the number of variables in our study. However, several researchers claim that personality traits are important determinants of transformational leadership (e.g. Bono and Judge, 2004; Crant and Bateman, 2000; Deluga, 1997, 2001; Howell and Avolio, 1993). To address this limitation, we recommend that future research examine the associations among personality traits, managerial assumptions and beliefs, and leadership behaviors. Specifically, it would be useful to assess the contribution of Theory X and Y assumptions on transformational leadership behaviors after controlling for several relevant personality traits.

Conclusion

We expanded the set of transformational leadership predictors with our examination of McGregor's Theory X and Y managerial assumptions and gender. We found empirical evidence that suggests the importance of a leader's Theory X and Y managerial assumptions in predicting their transformational leadership behavior as rated by their subordinates. The results of our study demonstrated that a leader's Theory Y managerial assumptions are positively related to followers' ratings of the leader's transformational leadership behavior. Furthermore, this relationship was stronger for female leaders than for male leaders. On the other hand, the results indicated that a leader's Theory X managerial assumptions are negatively correlated with followers' ratings of the leader's transformational leadership behavior; however, the gender of the leader did not moderate this Theory X, transformational leadership relationship. Given these promising results, we encourage future research to continue to explore the link between managerial assumptions and leadership.

References

- Aiken, L.S. and West, S.G. (1991), *Multiple Regression: Testing and Interpreting Interactions*, Sage, Newbury Park, CA.
- Appelbaum, S.H., Audet, L. and Miller, J.C. (2003), "Gender and leadership? Leadership and gender? A journey through the landscape of theories", *Leadership & Organization Development Journal*, Vol. 24 No. 1, pp. 43-51.
- Atwater, L.E. and Yammarino, F.J. (1993), "Personal attributes as predictors of superiors' and subordinates' perceptions of military academy leadership", *Human Relations*, Vol. 46 No. 10, pp. 645-668.
- Avolio, B.J., Walumbwa, F.O. and Weber, T.J. (2009), "Leadership: current theories, research, and future directions", *Annual Review of Psychology*, Vol. 60 No. 1, pp. 421-429.
- Barbuto, J.E.J., Fritz, S.M., Matkin, G.S. and Marx, D.B. (2007), "Effects of gender, education, and age upon leaders' use of influence tactics and full range leadership behaviors", *Sex Roles*, Vol. 56 Nos 1/2, pp. 71-83.
- Bass, B.M. (1985), *Leadership and Performance Beyond Expectations*, Free Press, New York, NY.
- Bass, B.M. and Avolio, B.J. (1990), "The implications of transactional and transformational leadership for individual, team, and organizational development", in Woodman, R.W. and Pasmore, W.A. (Eds), *Research in Organizational Change and Development*, (Volume 4), JAI Press, Greenwich, CT, pp. 231-272.
- Bass, B.M. and Avolio, B.J. (1995), *MLQ Multifactor Leadership Questionnaire for Research: Permission Set*, Mindgarden, Redwood City, CA.
- Bass, B.M., Avolio, B.J. and Atwater, L. (1996), "The transformational and transactional leadership of men and women", *Applied Psychology: An International Journal*, Vol. 45 No. 1, pp. 5-34.
- Bedeian, A.G. and Wren, D.A. (2001), "Most influential management books of the 20th century", *Organizational Dynamics*, Vol. 29 No. 3, pp. 221-225.
- Bobic, M.P. and Davis, W.E. (2003), "A kind word for Theory X: or why so many newfangled management techniques quickly fail?", *Journal of Public Administration Research and Theory*, Vol. 13 No. 3, pp. 239-264.
- Bommer, W.H., Rubin, R.S. and Baldwin, T.T. (2004), "Setting the stage for effective leadership: antecedents of transformational leadership behavior", *Leadership Quarterly*, Vol. 15 No. 2, pp. 195-210.
- Bono, J.E. and Judge, T.A. (2004), "Personality and transformational and transactional leadership: a meta-analysis", *Journal of Applied Psychology*, Vol. 89 No. 5, pp. 901-910.

- Brenner, O.C., Tomkiewicz, J. and Schein, V.E. (1989), "The relationship between sex role stereotypes and requisite management characteristics revisited", *Academy of Management Journal*, Vol. 32 No. 3, pp. 662-669.
- Brown, F.W. and Reilly, M.D. (2008), "Emotional intelligence, transformational leadership and gender: correlation and interaction possibilities", *The Journal of International Management Studies*, Vol. 3 No. 2, pp. 1-9.
- Brown, S.E. and Ladawan, T. (1979), "Perceived satisfaction with leadership as related to subordinate and superordinate managerial philosophies", *Perceptual and Motor Skills*, Vol. 48 No. 2, pp. 355-359.
- Burns, J.M. (1978), *Leadership*, Harper & Row, New York, NY.
- Calder, B.J. (1977), "An attribution theory of leadership", in Shaw, B.M. and Salanick, G.R. (Eds), *New Directions in Organizational Behavior*, St Clair, Chicago, IL, pp. 179-204.
- Carless, S.A. (1998), "Gender differences in transformational leadership: an examination of superior, leader, and subordinate perspectives", *Sex Roles*, Vol. 39 Nos 11/12, pp. 887-902.
- Carless, S.A., Wearing, A.J. and Mann, L. (2000), "A short measure of transformational leadership", *Journal of Business and Psychology*, Vol. 14 No. 3, pp. 389-405.
- Carli, L.L. and Eagly, A.H. (2011), "Gender and leadership", in Collinson, D., Zedeck, S., Bryman, A., Grint, K., Jackson, B. and Bien, M.U. (Eds), *Sage Handbook of Leadership*, Sage Publications, London, pp. 103-117.
- Carpenter, M., Sanders, G. and Gregersen, H. (2001), "Bundling human capital with organizational context: the impact of international assignment experience on multinational firm performance and CEO pay", *Academy of Management Journal*, Vol. 44 No. 3, pp. 493-511.
- Cogliser, C. and Schriesheim, C. (2000), "Exploring work unit context and leader-member exchange: a multilevel perspective", *Journal of Organizational Behavior*, Vol. 21 No. 5, pp. 487-511.
- Crant, J.M. and Bateman, T.S. (2000), "Charismatic leadership viewed from above: the impact of proactive personality", *Journal of Organizational Behavior*, Vol. 21 No. 1, pp. 63-75.
- Cuadrado, I., Navas, M., Molero, F., Ferrer, E. and Morales, J.F. (2012), "Gender differences in leadership styles as a function of leader and subordinates' sex and type of organization", *Journal of Applied Social Psychology*, Vol. 42 No. 12, pp. 3083-3113.
- Day, D.V. (2001), "Leadership development: a review in context", *The Leadership Quarterly*, Vol. 11 No. 4, pp. 581-613.
- Deluga, R.J. (1997), "Relationship among American presidential charismatic leadership, narcissism, and rated performance", *The Leadership Quarterly*, Vol. 8 No. 1, pp. 49-65.
- Deluga, R.J. (2001), "American presidential Machiavellianism: implications for charismatic leadership and rated performance", *The Leadership Quarterly*, Vol. 12 No. 3, pp. 339-363.
- Doherty, A. (1997), "The effect of leaders characteristics on the perceived transformational/transactional leadership and impact of interuniversity athletic administrators", *Journal of Sports Medicine*, Vol. 11 No. 3, pp. 275-285.
- Druskat, V.U. (1994), "Gender and leadership style: transformational and transactional leadership in the Roman Catholic Church", *The Leadership Quarterly*, Vol. 5 No. 2, pp. 99-109.
- Duehr, E.E. and Bono, J.E. (2006), "Men, women, and managers: are stereotypes finally changing?", *Personnel Psychology*, Vol. 59 No. 4, pp. 815-846.
- Eagly, A.H. (1987), *Sex Differences in Social Behavior: A Social-Role Interpretation*, Erlbaum, Hillsdale, NJ.
- Eagly, A.H. and Johannesen-Schmidt, M.C. (2001), "The leadership styles of women and men", *The Journal of Social Issues*, Vol. 57 No. 4, pp. 781-797.
- Eagly, A.H. and Johnson, B.T. (1990), "Gender and leadership style: a meta-analysis", *Psychological Bulletin*, Vol. 108 No. 2, pp. 233-256.

- Eagly, A.H. and Karau, S.J. (1991), "Gender and the emergence of leaders: a meta-analysis", *Journal of Personality and Social Psychology*, Vol. 60 No. 5, pp. 685-710.
- Eagly, A.H. and Karau, S.J. (2002), "Role congruity theory of prejudice toward female leaders", *Psychological Review*, Vol. 109 No. 3, pp. 573-598.
- Eagly, A.H., Johannesen-Schmidt, M.C. and van Engen, M.L. (2003), "Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men", *Psychological Bulletin*, Vol. 129 No. 4, pp. 569-591.
- Eagly, A.H., Karau, S.J. and Makhijani, M.G. (1995), "Gender and the effectiveness of leaders: a meta-analysis", *Psychological Bulletin*, Vol. 117 No. 1, pp. 125-145.
- Eagly, A.H., Wood, W. and Diekmann, A. (2000), "Social role theory of sex differences and similarities: a current appraisal", in Eckes, T. and Trautner, H.M. (Eds), *The Developmental Social Psychology of Gender*, Erlbaum, Mahwah, NJ, pp. 123-174.
- Eden, D. (1990), *Pygmalion in Management*, Lexington Books, Lexington, MA.
- Evans, M.G. (1985), "A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis", *Organizational Behavior and Human Decision Processes*, Vol. 36 No. 3, pp. 305-323.
- Fiman, B.G. (1973), "An investigation of the relationships among supervisory attitudes, behaviors, and outputs: an examination of McGregor's Theory Y", *Personnel Psychology*, Vol. 26 No. 1, pp. 95-105.
- Gibson, C. (1995), "An investigation of gender differences in leadership across four countries", *Journal of International Business Studies*, Vol. 26 No. 2, pp. 225-279.
- Gürbüz, S., Şahin, F. and Köksal, O. (2014), "Revisiting of Theory X and Y: a multilevel analysis of the effects of leaders' managerial assumptions on followers' attitudes", *Management Decision*, Vol. 52 No. 10, pp. 1888-1906.
- Heilman, M.E. and Okimoto, T.G. (2007), "Why are women penalized for success at male tasks? The implied communality deficit", *Journal of Applied Psychology*, Vol. 92 No. 1, pp. 81-92.
- Heilman, M.E., Block, C.J. and Martell, R.F. (1995), "Sex stereotypes: do they influence perceptions of managers?", *Journal of Social Behavior & Personality*, Vol. 10 No. 6, pp. 237-252.
- Heilman, M.E., Block, C.J., Martell, R.F. and Simon, M.C. (1989), "Has anything changed? Current characterizations of men, women, and managers", *Journal of Applied Psychology*, Vol. 74 No. 6, pp. 935-942.
- Holton, E.F. and Lynham, S.A. (2000), "Performance-driven leadership development", *Advances in Developing Human Resources*, Vol. 2 No. 2, pp. 1-17.
- House, R.J. and Aditya, R.N. (1997), "The social scientific study of leadership: quo vadis?", *Journal of Management*, Vol. 23 No. 3, pp. 409-473.
- Howell, J.M. and Avolio, B.J. (1993), "Transformational leadership, transactional leadership, locus of control, and support for innovation: key predictors of consolidated business-unit performance", *Journal of Applied Psychology*, Vol. 78 No. 6, pp. 891-902.
- James, L.R. (1982), "Aggregation bias in estimates of perceptual agreement", *The Journal of Applied Psychology*, Vol. 67 No. 2, pp. 219-229.
- James, L.R., Demaree, R.G. and Wolf, G. (1984), "Estimating within-group interrater reliability with and without response bias", *Journal of Applied Psychology*, Vol. 69 No. 1, pp. 85-98.
- Judge, T.A. and Piccolo, R.F. (2004), "Transformational and transactional leadership: a meta-analytic test of their relative validity", *Journal of Applied Psychology*, Vol. 89 No. 5, pp. 755-768.
- Junker, N.M. and van Dick, R. (2014), "Implicit theories in organizational settings: a systematic review and research agenda of implicit leadership and followership theories", *The Leadership Quarterly*, Vol. 25 No. 6, pp. 1154-1173.
- Kelloway, E.K. and Barling, J. (2000), "What we have learned about developing transformational leaders", *Leadership & Organizational Development Journal*, Vol. 21 No. 7, pp. 355-362.

- Koenig, A.M., Eagly, A.H., Mitchell, A.A. and Ristikari, T. (2011), "Are leader stereotypes masculine? A meta-analysis of three research paradigms", *Psychological Bulletin*, Vol. 137 No. 4, pp. 616-642.
- Komives, S. (1991), "The relationship of same- and cross-gender work pairs to staff performance and supervisor leadership in residence hall units", *Sex Roles*, Vol. 24 No. 5, pp. 355-363.
- Kopelman, R.E., Prottas, D.J. and Davis, A.L. (2008), "Douglas McGregor's Theory X and Y: toward a construct-valid measure", *Journal of Managerial Issues*, Vol. 20 No. 2, pp. 255-271.
- Kopelman, R.E., Prottas, D.J. and Falk, D.W. (2010), "Construct validation of a Theory X/Y behavior scale", *Leadership & Organization Development Journal*, Vol. 31 No. 2, pp. 120-135.
- Kopelman, R.E., Prottas, D.J. and Falk, D.W. (2012), "Further development of a measure of Theory X and Y managerial assumptions", *Journal of Managerial Issues*, Vol. 24 No. 4, pp. 450-470.
- Larsson, J., Vinberg, S. and Wiklund, H. (2007), "Leadership, quality and health: using McGregor's X and Y Theory for analyzing values in relation to methodologies and outcomes", *Total Quality Management & Business Excellence*, Vol. 18 No. 10, pp. 1147-1168.
- LeBreton, J.M. and Senter, J.L. (2008), "Answers to 20 questions about interrater reliability and interrater agreement", *Organizational Research Methods*, Vol. 11 No. 4, pp. 815-852.
- Leithwood, K. and Jantzi, D. (1997), "Explaining variation in teachers' perceptions of principals' leadership: a replication", *Journal of Educational Administration*, Vol. 35 No. 4, pp. 312-330.
- Lewis, A.E. (1998), "The influence of gender and organization level of perceptions of leader behaviors: a self and supervisor comparison", *Sex Roles*, Vol. 39 No. 5, pp. 479-502.
- Lowe, K.B., Kroeck, K.G. and Sivasubramaniam, N. (1996), "Effectiveness correlates of transformational and transactional leadership: a meta-analytic review of the MLQ literature", *The Leadership Quarterly*, Vol. 7 No. 3, pp. 385-425.
- McCutcheon, A.S., Doran, D., Evans, M., Hall, L.M. and Pringle, D. (2009), "Effects of leadership and span of control on nurses' job satisfaction and patient satisfaction", *Nursing Leadership*, Vol. 22 No. 3, pp. 48-67.
- McGregor, D.M. (1960), *The Human Side of Enterprise*, McGraw-Hill, New York, NY.
- McGregor, D.M. (1966), *Leadership and Motivation*, MIT Press, Cambridge, MA.
- McGregor, D. and Cutcher-Gershenfeld, J. (2006), *The Human Side of Enterprise (Annotated Edition)*, McGraw Hill, New York, NY.
- Maher, K.J. (1997), "Gender-related stereotypes of transformational and transactional leadership", *Sex Roles*, Vol. 37 No. 3, pp. 209-225.
- Mandell, B. and Pherwani, S. (2003), "Relationship between emotional intelligence and transformational leadership style: a gender comparison", *Journal of Business and Psychology*, Vol. 17 No. 3, pp. 387-404.
- Manning, T.T. (2002), "Gender, managerial level, transformational leadership and work satisfaction", *Women in Management Review*, Vol. 17 No. 5, pp. 207-216.
- Miner, J.B. (2003), "The rated importance, scientific validity, and practical usefulness of organizational behavior theories: a quantitative review", *Academy of Management Learning and Education*, Vol. 2 No. 3, pp. 250-268.
- Morse, J.J. and Lorsch, J.W. (1970), "Beyond Theory Y", *Harvard Business Review*, Vol. 48 No. 3, pp. 61-68.
- Neuliep, J.W. (1987), "The influence of Theory X and Theory Y management styles on the selection of compliance-gaining strategies", *Communication Research Reports*, Vol. 4 No. 1, pp. 14-19.
- Neuliep, J.W. (1996), "The influence of Theory X and Y management style on the perception of ethical behavior in organizations", *Journal of Social Behavior and Personality*, Vol. 11 No. 2, pp. 301-311.
- Oshaghemi, T. and Gill, R. (2003), "Gender differences and similarities in the leadership styles and behaviour of UK managers", *Women in Management Review*, Vol. 18 No. 6, pp. 288-298.
- Paris, L.D., Howell, J.P., Dorfman, P.W. and Hanges, P.J. (2009), "Preferred leadership prototypes of male and female leaders in 27 countries", *Journal of International Business Studies*, Vol. 40 No. 8, pp. 1396-1405.

- Pastor, J.C. and Mayo, M. (2008), "Transformational leadership among Spanish upper echelons: the role of managerial values and goal orientation", *Leadership & Organization Development Journal*, Vol. 29 No. 4, pp. 340-358.
- Paustian-Underdahl, S.C., Walker, L.S. and Woehr, D.J. (2014), "Gender and perceptions of leadership effectiveness: a meta-analysis of contextual moderators", *Journal of Applied Psychology*, Vol. 99 No. 6, pp. 1129-1145.
- Podsakoff, P.M., MacKenzie, S.B. and Podsakoff, N.P. (2012), "Sources of method bias in social science research and recommendations on how to control it", *Annual Review of Psychology*, Vol. 63 No. 1, pp. 539-569.
- Podsakoff, P., MacKenzie, S., Moorman, S. and Fetter, R. (1990), "Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors", *The Leadership Quarterly*, Vol. 1 No. 2, pp. 107-142.
- Powell, G.N. (Ed.) (1999), *Handbook of Gender and Work*, Sage, Thousand Oaks, CA.
- Powell, G.N. and Butterfield, D.A. (1979), "The 'good manager': masculine or androgynous?", *Academy of Management Journal*, Vol. 22 No. 2, pp. 395-403.
- Powell, G.N. and Butterfield, D.A. (1984), "If 'good managers' are masculine, what are 'bad managers'?", *Sex Roles*, Vol. 10 No. 7, pp. 477-484.
- Powell, G.N. and Butterfield, D.A. (1989), "The 'good manager': did androgyny fare better in the 1980s?", *Group and Organization Studies*, Vol. 14 No. 2, pp. 216-233.
- PsycINFO (2015), "Transformational leadership", available at: <http://psycnet.apa.org/?fa=search.searchResults&type=advanced&db=pi,pb,pq,pa,pe,pt&term=transformational%20 leadership %20&fields=AnyField> (accessed August 10, 2015).
- Raudenbush, S.W. and Bryk, T.A. (2002), *Hierarchical Linear Model: Applications and Data Analysis Methods*, 2nd ed., Sage, Thousand Oaks, CA.
- Reddin, W.J. (1969), "What's wrong with the style theories", *Training and Development Journal*, Vol. 23 No. 2, pp. 14-17.
- Rosener, J.B. (1990), "Ways women lead", *Harvard Business Review*, November-December, pp. 119-125.
- Russ, T.L. (2011), "Theory X/Y assumptions as predictors of managers' propensity for participative decision making", *Management Decision*, Vol. 49 No. 5, pp. 823-836.
- Sabancı, A. (2008), "School principals' assumptions about human nature: implications for leadership in Turkey", *Educational Management Administration & Leadership*, Vol. 36 No. 4, pp. 511-529.
- Sager, K.L. (2008), "An exploratory study of the relationships between Theory X/Y assumptions and superior communicator style", *Management Communication Quarterly*, Vol. 22 No. 2, pp. 288-312.
- Sager, K.L. (2015), "Looking down from above: measuring downward maintenance communication and exploring Theory X/Y assumptions as determinants of its expression", *Journal of Work and Organizational Psychology*, Vol. 31 No. 1, pp. 41-50.
- Şahin, F. (2012a), "The mediating effect of the leader-member exchange on the relationship between Theory X/Y management styles and affective commitment: a multilevel analysis", *Journal of Management & Organization*, Vol. 18 No. 2, pp. 159-174.
- Şahin, F. (2012b), "The effects of leadership and followership styles on individual performance outcomes", unpublished manuscript, Niğde University, Niğde.
- Schein, E. (2011), "Douglas McGregor: theoretician, moral philosopher or behaviorist?: an analysis of the interconnections between assumptions, values and behavior", *Journal of Management History*, Vol. 17 No. 2, pp. 156-164.
- Schein, V.E. (1973), "The relationship between sex role stereotypes and requisite management characteristics", *Journal of Applied Psychology*, Vol. 57 No. 2, pp. 95-100.
- Schein, V.E. (2007), "Women in management: reflections and projections", *Women in Management Review*, Vol. 22 No. 1, pp. 6-18.

- Schriesheim, C and Yammarino, F. (2000), "Investigating contingencies: an examination of the impact of span of supervision and upward controlliness on leader-member exchange using traditional and multivariate within- and between-entities analysis", *Journal of Applied Psychology*, Vol. 85 No. 5, pp. 659-677.
- Scott, K. and Brown, D.J. (2006), "Female first, leader second? Gender bias in the encoding of leadership behavior", *Organizational Behavior and Human Decision Processes*, Vol. 101 No. 2, pp. 230-242.
- Sosik, J.J. (2005), "The role of personal values in the charismatic leadership of corporate managers: a model and preliminary field study", *The Leadership Quarterly*, Vol. 16 No. 2, pp. 221-244.
- Sy, T. (2010), "What do you think of followers? Examining the content, structure and consequences of implicit followership theories", *Organizational Behavior and Human Decision Processes*, Vol. 113 No. 2, pp. 73-84.
- Thomas, J.M. and Bennis, W.G. (1972), *The Management of Change and Conflict: Selected Readings*, Penguin, Harmondsworth.
- Trepanier, S., Fernet, C. and Austin, S. (2012), "Social and motivational antecedents of perceptions of transformational leadership: a self-determination theory perspective", *Canadian Journal of Behavioural Science*, Vol. 44 No. 4, pp. 272-277.
- Tucker, S., Turner, N., Barling, J., Reid, E. and Elving, C. (2006), "Apologies and transformational leadership", *Journal of Business Ethics*, Vol. 63 No. 3, pp. 195-207.
- van Engen, M.L. and Willemssen, T.K. (2004), "Sex and leadership styles: a meta-analysis of research published in the 1990s", *Psychological Reports*, Vol. 94 No. 1, pp. 3-18.
- van Engen, M.L., van der Leeden, R. and Willemssen, T.M. (2001), "Gender context and leadership styles: a field study", *Journal of Occupational and Organisational Psychology*, Vol. 74 No. 5, pp. 581-598.
- Vecchio, R.P. (2002), "Leadership and gender advantage", *The Leadership Quarterly*, Vol. 13 No. 6, pp. 643-671.
- Walter, F. and Scheibe, S. (2013), "A literature review and emotion-based model of age and leadership: new directions for the trait approach", *The Leadership Quarterly*, Vol. 24 No. 6, pp. 882-901.
- Wang, A.-C., Chiang, J.T.-J., Tsai, C.-Y., Lin, T.-T. and Cheng, B.-S. (2013), "Gender makes the difference: the moderating role of leader gender on the relationship between leadership styles and subordinate performance", *Organizational Behavior and Human Decision Processes*, Vol. 122 No. 2, pp. 101-113.

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