TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP: AN EXAMINATION OF MANAGERIAL COGNITION AMONG SPANISH UPPER ECHELONS[1]

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Abstract

Transformational leadership predicts follower's satisfaction and performance beyond traditional forms of leadership. However, little is known about the beliefs system associated with transformational leaders. Taking a cognitive perspective, we examined how the managerial beliefs that executives hold about their followers relate to their perceived leadership style among a sample of 76 Presidents and CEO´s of Spain largest firms. The results support the idea that executives with a learning orientation are more likely to report a transformational leadership style; whereas executives with a performance goal orientation are more likely to report a transactional leadership style. We also found that self-rated transformational leaders hold stronger Theory Y beliefs than self-rated transactional leaders. Furthermore, we found that these mental associations are held to a stronger degree for executives with graduate degrees of formal education. These results are discussed in terms of their significance for transformational leadership theory and leadership development.

Key words

Transformational Leadership, Managerial Cognition, Goal orientation, Theory Y.

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INTRODUCTION

In the last two decades, there has been a great research effort to understand the dynamics of transformational and charismatic leadership. Work on the extant theories in this field, -Bass (1985), Burns (1978), Conger and Kanungo (1998) and House (1977) has focused, for the most part, on the description of the behaviors and leadership styles of transformational leaders and their effects on followers (see House & Shamir, 1993). The empirical evidence showing that transformational and charismatic leadership predict followers' satisfaction and performance beyond other traditional forms of leadership is overwhelmly positive, as demonstrated in three meta-analytical reviews (Fuller, Patterson, Hester, & Stringer, 1996; Judge and Piccolo, 2004; Lowe, Kroeck, & Sivasubramanian, 1996).

Despite the evidence of the positive impact of transformational leadership in followers and organizations, little is known about the cognitive aspects associated with transformational leaders that may facilitate the adoption of this leadership style. The cognitive perspective is conspicuously underrepresented in the transformational and transactional leadership literature. A few studies have used a cognitive approach to explain how transformational leaders motivate subordinates by engaging subordinates´ self-concept in the interest of the leader's mission (Shamir, House & Arthur, 1993; Bono & Judge, 2003). Similarly, a study by Pastor, Meindl & Mayo (2002) also focused on subordinate's attributions regarding the charismatic qualities of a leader. However, there is little research on the attitudes and beliefs of leaders themselves that are associated with transformational leadership. Understanding the beliefs system of transformational leaders has important implications for leadership development. If transformational leaders display behaviors toward subordinates that are unique and have an extraordinary impact on followers, we might expect that their attitudes, values and beliefs about people in general and followers in particular are also different from other types of leaders. For instance, it is reasonable to expect that transformational leaders stimulate followers intellectually because they belief that followers are motivated to learn and grow and can be motivated toward ideological goals. Similarly, transformational leaders may invest time and effort in developing followers, because they belief that followers are malleable and their competencies can be developed.

In this study, we seek to understand some aspects of leaders´ cognitive system that might act as precursors of the use of transactional and transformational styles to lead and influence subordinates. We argue that the beliefs and values that leaders hold are key determinants of their motivation to lead and their behavioral displays. Our purpose is to gain a better understanding of the beliefs system held by executives who view themselves as transformational leaders. We did this by examining some of the generalized beliefs and implicit theories that leaders hold about their followers and their abilities. In a field study, we explored the mental association between leaders´ self-perception of transformational leadership and generalized beliefs consistent with McGregor's (1960) Theory Y Philosophy of Management and Dweck's (1998) Implicit Theories of Abilities among Presidents and CEO's of Spain's largest firms.

TRANSFORMATIONAL LEADERSHIP

One of the most influential theories of leadership in the last few decades has been the transactional-transformational theory of leadership (Bass, 1985, 1990, 1997; Burns, 1978). We used this theory to explore the relationship between managers´ beliefs and self-perceptions of leadership for several reasons. First, Bass´ theory provides a comprehensive theoretical framework as well as a number of refined tools to measure the various leadership constructs advanced in the theory (e.g., Multifactor Leadership Questionnaire, MLQ, Bass & Avolio, 1990). Second, the theory of transformational leadership has been widely applied to a variety a settings which provides high construct validity to the concepts and measures. Third, the theory provides a number of leadership dimensions that will allow us to examine differences in the beliefs of managers who perceive themselves using one leadership style over others. Finally, the transactional–transformational theory of leadership has become the dominant paradigm for leadership research in the last few decades. A recent search of keywords in materials published in PsycINFO conducted by Judge and Bono (2000) revealed that from 1990 to 2003, there were more articles citing the transformational theory of leadership than all of the other leadership theories combined (e.g., contingency models, Vroom-Yetton, vertical-dyad linkage, and so on).

Generally, the transactional and transformational theory of leadership (Bass, 1985, 1990; Burns, 1978) seeks to explain the extraordinary effects that certain leaders have on their followers. While transactional leaders obtain expected results from followers, transformational leaders seem to obtain extraordinary effort, motivation, self-sacrificial behavior and performance from their followers. Underlying these effects is the nature of the relationship established between leaders and followers. Transactional leadership occurs when leader-follower relationships are viewed as exchanges, in which leaders and followers perceive each other as being potentially instrumental to each others' goals and needs, such as accomplishment of a task (Bass, 1990). By contrast, transformational leadership occurs when leader-follower relationships are viewed as transcending their own personal interests to the benefit of higher-order values and principles (Burns, 1978). Transformational leaders are visionary, charismatic, sensitive to individuals' needs and feelings, and inspirational (e.g., Bass, 1985; Burns, 1978; Conger, 1989; Conger & Kanungo, 1988; House and Shamir, 1993). Charisma has been found to be the major component of transformational leadership (Bass, 1985). Charismatic relationships are characterized by followers' intense emotional feelings about the leader, unquestioning acceptance of leaders' beliefs, and an emotional attachment to the mission. These followers react with devotion, affection, admiration, and extraordinary esteem for their leaders. The transactional and transformational theory of leadership has been successfully applied in different organizational contexts, which adds to its construct validity.

More specifically, transformational leaders have an enormous influence on followers by paying individualized consideration to each of them, talking about possibilities in the future, and acting self-sacrificially. Transformational leadership occurs when there is a personal identification with the goals of the leader, so that followers are willing to exert high levels of effort and commitment. There are four main dimensions to transformational leadership. First, *idealized influence* or charisma refers to the leader's ability to exercise intensive and diffuse influence over followers' beliefs, attitudes and

behaviors. Charisma is viewed as a relationship or bond between the leader and the follower. Charismatic leaders articulate overarching goals, communicate high expectations, exhibit confidence in their followers, and establish emotional bonds with them. Charismatic leaders project a sense of power, confidence, and dynamism to other team members.

Second, *inspiration* refers to the behaviors of leaders that motivate and inspire followers, such as establishing challenging goals and providing meaning to the job. Inspirational leaders display enthusiasm and optimism and provide a vision of the future that is appealing to their followers. These leadership style includes communicating clear expectations about effectiveness, effort and commitment to the task at hand. Third, *individualized consideration* refers to the behaviors of leaders who show concern for their followers´ welfare and engage in frequent conversations with them. They stress the satisfaction and well-being of their interlocutors and often act as coaches and mentors for other team members. They are perceived as friendly and approachable, and show acceptance of individuals' differences. They show active listening and delegate or involve members in challenging tasks to develop them. Finally, *intellectual stimulation* refers to the behaviors of leaders who often question the assumptions made by their followers, helping them to reframe problems, and to approach old situations in new ways. They stimulate creativity in the team and never criticize individual members' mistakes.

In contrast, transactional leadership occurs through an exchange between the leader and the follower in which rewards and incentives are offered in exchange for effort and compliance. There are two main dimensions in the transactional leadership relationship. First, *contingent reward* refers to those aspects of the relationship in which leaders clarify goals, talk about expected behaviors and accomplishments, and reward subordinates for expected levels of performance. These leaders see their relationship with followers as an exchange process in which their role is to assign and get agreements from followers by clarifying the rewards that will likely be obtained in exchange for satisfactory performance. Second, *management by exception* refers to the behaviors of leaders who often engage in corrective transactions with followers. These leaders arrange to monitor subordinates' performance and look out for errors in order to correct them. This process of searching for mistakes can be passive, waiting for errors to occur, or active, when leaders closely examine work processes so that mistakes can be prevented and corrected.

MANAGERIAL COGNITION

The socio-cognitive approach to psychology suggests that behavior is a function of the interaction between individuals' internal dispositions and the situation (Bandura, 1997; Mischel & Shoda, 1998). Indeed, most socio-cognitive perspectives share the common view that internal dispositions are activated by situational factors and have an effect on behavior through a core set of cognitive and affective mediating processes (Mischel & Shoda, 1998). If individuals' attitudes and beliefs toward others are important determinants of their behavior (Fishbein & Ajzen, 1975), then transactional and transformational leaders may hold different managerial beliefs and assumptions that underlie their preferences for transactional and transformational leadership styles. That is, transactional and transformational leaders show unique patterns of behaviors toward subordinates that should be related to specific beliefs and assumptions about people in general and their subordinates

in particular. For instance, delegating responsibilities on subordinates requires a high degree trust and the belief that at least certain people can be trusted. We explore in this paper two important sets of beliefs in the organizational behavior literature that could be related to leaders preferences for certain leadership styles, namely the Implicit Theories of Ability (Dweck, 1989; Dweck & Ledggett, 1988; Heyman & Dweck, 1992; Licht & Dweck, 1984) and Theory Y Philosophy of Management (McGregor, 1960). These two sets of beliefs include basic assumptions about people's motivations and their ability to learn that might be related to the leadership styles implemented by managers.

Implicit Theories of Ability. Research on goal orientation has received a great deal of attention in the last few years (e.g., Seijts, Latham, Tasa, Latham, 2004). Working in the educational psychology field, Dweck (1989, 1996) originally proposed that the goals people pursue create a framework for the interpretation of events and outcomes. The work of Dweck and her colleagues (Dweck, 1989; Dweck & Ledggett, 1988; Heyman & Dweck, 1992; Licht & Dweck, 1984) has identified two classes or types of goals: performance goals and learning goals. Individuals with a performance goal orientation strive to demonstrate their competence via task performance to avoid negative judgments of their competence. In contrast, learning oriented individuals strive to understand something new or to increase their level of competence in a given task.

Research has shown that the goal orientation is related to different conceptions of ability (Dweck & Leggett, 1988; VandeWalle, Ganesan, Challagalla and Brown, 2000). In fact, the two goal orientations can also be considered implicit theories of ability that have important implications for behavior. Performance oriented individuals tend to consider abilities difficult if not impossible to change and therefore avoid exploring ways to improve abilities and skills after failures. In contrast, learning oriented individuals consider skills and abilities changeable and therefore they strive to improve and master the tasks. The conception of ability as a fix entity leads to a performance orientation that emphasizes goals and results. In other words, those with the conception of ability as an unchangeable entity will try to set goals to outperform others rather than improve their ability (Brett & VandeWalle, 1999; VandeWalle, 1997; VandeWalle, Cron and Slocum, 2001). Thus, it is reasonable to expect that leaders with implicit theories of ability as a fixed entity (performance goal orientation) will see themselves as striving to pursue goals and motivate subordinates by reinforcing their desired behavior or punishing them when they deviate from the expected behavior. These behaviors are more consistent with a transactional leadership style. Stated formally:

Hypothesis 1: Performance goal orientation will show a positive association with transactional leadership.

In contrast, we expect leaders with a learning orientation to see themselves as dedicating efforts to improve their subordinate's abilities. Tabernero and Wood (1999) found that learning oriented individuals tend to develop stronger self-efficacy, maintain more positive affect, and set themselves more challenging goals across multiple trials in a laboratory study. Also, VandeWalle an his colleagues (VandeWalle et al, 2000; Vande

Walle and Cummings, 1997) found that learning goal orientation was related to active feedback-seeking behaviors with respect to overall performance and technical aspects of the job. These behaviors are consistent with a transformational leadership style. Transformational leaders act as coaches seeking to improve their subordinates abilities. Accordingly:

Hypothesis 2: Learning goal orientation will show a positive association with transformational leadership.

Philosophy of Management. In his 1960 management book, *The Human Side of Enterprise*, Douglas McGregor proposed the two motivational theories by which managers perceive employee motivation. Originally, he referred to these opposing motivational theories as Theory X and Theory Y. Beliefs consistent with Theory X include the idea that most people are not ambitious, have little desire for responsibility, have little aptitude for creativity in solving organizational problems and prefer to be directed. Most people are self-centered and as a result, they must be closely controlled and often coerced to achieve organizational objectives. In contrast, managers with Theory Y beliefs assume that work can be as natural as play if the conditions are favorable. People are self-directed and creative to meet their work and organizational objectives if they are committed to them. These managers also believe that people are committed to their quality and productivity objectives if the rewards in place address higher developmental needs such as self-fulfilment. Theory Y beliefs also include the idea that the capacity for creativity can spread throughout organizations and most people can handle increased responsibility because creativity and ingenuity are common in the population. We expect that transactional and transformational leaders will differ in their Theory Y beliefs about subordinates. Managers with strong Theory Y beliefs will emphasize the development and involvement of subordinates in the decision making process. This approach is consistent with the dimensions of intellectual stimulation and individualized consideration of transformational leadership that emphasize helping subordinates reframe problems in new and creative ways and treating them individually. In contrast, executives with weak Theory Y beliefs will emphasize incentives and external controls to motivate employees. This approach is consistent with contingent reward and management-by-exception dimensions of transactional leadership. Accordingly:

Hypothesis 3: Theory Y beliefs will show a stronger positive association with transformational leadership than with transactional leadership.

So far, we have argued that there is an association between executives´ values and their self-perception of leadership styles. In this section, we address the role that formal education plays in the mental association between values and action. In particular, we suggest that executives´ understanding of value-action relationships are improved and facilitated with formal education. Organizational scholars have suggested that top managers learn about the adequacy between strategic decisions and the characteristics of the

environment through their career educational experiences (Hambrick and Mason, 1984). Similarly, we expect that top managers understanding of the relationships between their own personal values and congruent leadership styles may also be acquired through their careers as leaders. As managers learn the values and assumptions underlying certain leadership styles, they will identify their own leadership preferences. For example, an important part of the training activities in most executive MBAs programs is directed towards improving managers´ self-awareness of their own leadership styles (e.g., Boyatzis, Stubbs and Taylor, 2002). Self-awareness helps individuals to control their cognitive processes in order to plan and execute a desired course of action. Empirical work in this area has found a positive relationship between this active control over cognitive processes and learning (Sternberg, 1986). Thus, top executives who go through formal training in graduate education might be able to develop action plans and execute leadership styles that are more congruent with their own values and assumptions.

We argue that the educational level of top managers, particularly having and MBA or beyond increases the self awareness about their own values and its corresponding leadership styles to motivate and develop followers. CEOs with broader learning experiences may be more likely to perceive accurately this value-action relationship, and therefore report values and leadership styles that are consistent with current prescriptions of transformational-transactional theory. Thus, the level of CEO education will moderate the relationship between managers´ values and leadership styles, so that highly educated CEOs will hold stronger association between beliefs and leadership styles than less educated CEOs. Stated mode formally:

H4a. The self-reported relationship between Theory Y values and transformational leadership actions will be stronger for highly-educated CEOs.

H4b. The self-reported relationship between learning goal orientation and transformational leadership actions will be stronger for highly-educated CEOs.

H4c. The self-reported relationship between performance goal orientation and transactional leadership actions will be stronger for highly-educated CEOs.

METHODOLOGY

Sample and Procedure

The sample for this study includes 76 top executives of the largest companies in Spain. A total of 800 surveys were sent to the top executive of the largest companies in Spain and a reminder was sent a week later. We received a total of 76 usable surveys. The executive who responded to the survey were in firms operating in the service (32%), manufacturing (29%), industrial (19%), finance (11%), and computer and telecommunication (9%) industry. Regarding the position of the leaders in these companies, there were 43% presidents, 30% general directors, 18% board members and 9% other top position. The average age of the leaders was 45 years. The education level varied between 4% less than BA, 59% BA, 29% MBA; and 13% PhD (percentages add more than 100 because some participants have more than one degree, such as both MBA and PhD). Sixty six percentage of the leaders had up to 10 direct reports; 19% had between 10-20 and 15% had more than 20 direct reports.

Measures

Transformational Leadership. We measured transactional and transformational leadership by using a short version of the transformational leadership scales of the MLQ with 11 items (Bass & Avolio, 1990). We included 3 items to measure charisma (e.g., "When I want to motivate my group, I make reference to my values and ideals), 2 items of inspiration (e.g., "I always talk optimistically about the future"), 3 items of intellectual stimulation (e.g., I suggest my subordinates new ways of doing their job") and 3 items of individualized consideration (e.g., "I treat each of my subordinates to develop their strengths"). Responses to the items were measured with a 5-point scale (1-Almost never, 2-very rarely, 3-Sometimes, 4-Often and 5-Almost always). The reliability of the scale was .67.

Transactional Leadership. We measured transactional leadership by using a short version of the transactional leadership scales of the MLQ with 6 items (Bass & Avolio, 1990). We included 3 items from the Contingent Reward (e.g., "I assure that members of my group get their proper incentives when getting their objectives") and 3 items of Management-by-Exception (e.g., "I dedicate I good part of my time to correct errors and complains") scales of the MLQ (Bass & Avolio, 1990). Responses to the items were measured with the same scale. The reliability of the scale was .67.

Theory Y. We measured managers' philosophy of management by using a short version with 6 items of the scale developed by Mainiero and Tomley (1986). The scale is unidimensional and measures beliefs along a continuum going from strong Theory X to strong Theory Y. An example of item on the Theory X pole is "money is basically what motivates employees" and an example of item on the Theory Y pole is "people like to assume responsibilities." Responses to the items were measured with a 5-point scale ranging from 1-Totally Disagree to 5-Totally Agree. The responses for Theory X were

reversed, so we will refer to this measure as the Theory Y scale to avoid confusion. The reliability of the scale (Cronbach´s alpha) was .60.

Implicit Theories of Ability. We measured managers' goal orientation by using an 6-item scale from Buthon, Mathieu and Zajac (1996). Three items were used to measure performance goal orientation (e.g., I feel very well when I do things without errors and I feel competent when I do jobs better than others) and 3 items to measure learning goal orientation (e.g., I do my best when I try to do difficult and challenging projects"). Responses to the items were measured with a 5-point scale ranging from 1-totally disagree to 5-totally agree. The reliability of the scales (Cronbach´s alpha) was .61 for performance goal orientation and .66 for learning goal orientation.[1]

Control Variables. We introduced controls for age, sex, number of subordinates, tenure in the company, education and international experience. Age may affect the leadership styles of CEO´s because the values and beliefs regarding leadership and motivation during their training and formative years might be different. Even though there is only one female CEO in our sample, there is some research supporting the idea that female leaders use more transformational leadership styles (Eagly, Johannesen-Schmidt, and Engen, 2003). The number of subordinates may affect the leadership style of CEOs because they need to divide their time and attention among followers. Company tenure may also affect the beliefs and leadership styles of their CEO´s. Education may also an effect on CEOs values and leadership styles. MBA programs usually dedicate a good part of their training to increase managers´ self awareness and practice new leadership styles. CEO´s with an MBA degree or beyond may have values consistent with transformational leadership. Finally, international experience may influence the leadership styles of the CEOs by exposing them to a wider range of values and styles to motivate subordinates.

RESULTS

Means, standard deviations, and intercorrelations for the variables used in the analyses are presented in Table 1. The correlation between transactional and transformational leadership ($r=.50$, $p<.01$) is consistent with previous research in this area. The Theory Y scale shows statistically significant correlations with transformational ($r=.49$; $p<01$) and transactional leadership ($r=.34$; $p<01$). Learning goal orientation shows a statistically significant correlation with transformational ($r=.23$; $p<05$) and performance goal orientation shows a statistically significant correlation with transactional leadership ($r=.37$; $p<01$). Performance goal orientation and learning goal orientation show a statistically significant correlation ($r=.40$, $p<.01$). Table 1 shows the correlation matrix for all the variables as well as the reliability indexes.

[1] The reliability of the cognitive measures, although acceptable, is relatively low. One possible reason is that we decided to shorten the number of items for each scale to accommodate the time pressures of executives. For future research is recommended to use full scales.

[Insert table 1 about here]

Multiple regression analyses were used to estimate the effects of CEO´s beliefs and assumptions on leaders' self-perceived leadership style. We included the control variables in all the regressions. Since we are interested in the differences between transformational and transactional leadership, we introduced controls for transactional leadership when regressing transformational leadership and viceversa. Even though transformational and transactional leadership are conceptually different, most studies show high correlations between the two scales. By controlling for each other in the regression equations, we obtain the portion of unique variance explained by the regressors that make leaders transformational beyond their transactional leadership style and viceversa.

Hypothesis 1 predicts that performance goal orientation will show a positive relationship with transactional leadership. The results shown in Table 2 provide support for this hypothesis. As expected, performance goal orientation shows a positive and statistically significant beta coefficient with transactional leadership (beta= .41, p<01). Also as expected, the beta coefficient predicting transformational leadership did not reach statistical significance (b=-.09, ns).

Hypothesis 2 predicts that learning goal orientation will show a positive relationship with transformational leadership. The results shown in Table 2 provide support for this hypothesis. As expected, learning goal orientation shows a statistically significant beta coefficient predicting transformational leadership (beta=.27, p<01). In addition, we found a negative and statistically significant coefficient for transactional leadership (b=-.26, p<.05).

Hypothesis 3 predicted that Theory Y beliefs will be a stronger predictor of transformational leadership than transactional leadership. The results shown in Table 2 support this hypothesis. As expected, Theory Y beliefs show a positive and statistically significant beta coefficient predicting transformational leadership (beta=.43, p<01). In contrast, the beta coefficient predicting transactional leadership did not reach statistical significance (b=.03, ns).

Hypotheses 4a, 4b and 4c stated that the level of educational experience moderates the relationship between CEO´s values and their self-perception of leadership. To test these hypotheses, we divided our sample between CEOs without MBA degrees (n=45) and CEO´s with MBA degrees and beyond (n=31), and we examined the relationship between CEO´s values and self assessment of leadership styles within each subsample. We run regression equations within each sub-sample. The control variables were included in a first step and the two goal orientations and philosophy of management were included in a second step. Table 3 shows the beta coefficients for CEO´s goal orientation and philosophy of management predicting transformational and transactional leadership. As compared to the regression equation for the subsample of CEOs without MBA degree, the regression equation predicting transformational leadership for the graduate subsample shows higher beta coefficients for Theory Y (b=.62, p<.01 vs. b=.26, p<.01; difference z=2.09, p<.05) and learning goal orientation (b=.45, p<.01 vs. b=.18, difference z=1.30, p=.09). Also, performance goal orientation shows higher beta coefficients predicting transactional

leadership in the graduate subsample than the non-MBA subsample (b=.55, p<.01, vs b=.21, ns; difference z=1,68, p<.05). These results support our hypotheses.

SUMMARY AND DISCUSSION

Despite the relevance of transformational leadership in the leadership literature in the last two decades, the values, beliefs and assumptions of transformational leaders have received scant attention from leadership researchers. This study examined the implicit theories of abilities and Theory Y beliefs of top executives as they relate to their self-reported leadership styles. As predicted, learning goal orientation and Theory Y beliefs are good predictors of leaders´ preferences for transformational leadership. In contrast and also as predicted, performance goal orientation is a good predictor of transactional leadership.

One of the most interesting findings of the study relate to the effects of executives´ level of education on their mental association between managerial beliefs and leadership styles. Executives with high levels of formal education (MBA or PhD) report stronger associations between their values and the actions associated with transformational leadership than executives with lower levels of formal education. In particular, the values of Theory Y are strongly associated to the actions of transformational leadership in the minds of highly educated executives. Similarly, a learning goal orientation shows stronger association with the actions of transformational leadership in the minds of highly educated executives than non-graduate degree executives. This congruence effect of graduate education also occurs in the transactional leadership domain. In fact, highly educated executives hold strongly mental congruence between performance goal orientation and their self perception of transactional leadership. These results are consistent with the idea that formal education increases the meta-cognition of executives about value-action relationships. That is, their ability of knowing about their own implicit theories of action and act consistently with them. This awareness is a fundamental step to increase managerial learning. The key assumption here is that people have general beliefs about management that affect their perceptions of leadership actions. The association between these beliefs and the corresponding leadership actions becomes more obvious to those executives with formal training.

The results of our study also support the idea that leaders' implicit theories of ability and managerial beliefs are significantly associated with their self perception of leadership style. In particular, leaders with a learning goal orientation are more likely to report a transformational leadership style to influence their subordinates; whereas leaders with a performance goal orientation are more likely to report a transactional leadership style. It seems that the dominant belief of leaders who view themselves as acting transformational with their followers is that of learning and development over achievement and performance. The data show that high scores in transformational leadership are associated with higher scores on learning orientation. In contrast, it seems that the dominant orientation of leaders who view themselves as transactional leaders with their followers is that of performance and achievement over learning. Self-rated transactional leaders report that performance is an important goal for them. These results contribute to the transformational leadership literature adding a cognitive characteristic, namely learning

goal orientation, to the well-studied behavioral patterns of transformational leaders. This line of research contributes to advance a more socio-cognitive approach to leader-follower relations that have received little attention in the transformational leadership literature.

The results of the study also show that leaders with a strong belief system consistent with McGregor´s Theory Y are more likely to report using a transformational leadership style than using a transactional leadership style with subordinates. These results suggest that managers' general set of beliefs regarding their philosophy of management and their general expectation of how followers view their working life have an important effect on their leadership style. These findings present similar theoretical and practical implications as those for managers' goal orientation and together, they present a more comprehensive picture of the cognitive system associated with transformational leadership. Knowledge about the values and beliefs of transactional and transformational leaders will help managers and educators to develop transformational leadership abilities to motivate their subordinates.

Overall, our results contribute to advance the transformational leadership theory from a cognitive perspective. Most of the literature on transformational leadership has a behavioral focus (e.g., Bass, 1985, Conger and Kanungo, 1998). Behavioral models of transformational leadership consider leadership styles as a skill that can be acquired by practice or observation. In this paradigm, the development of transformational leaders is a matter of learning the right behaviors and practicing them. Other authors claim the role of personality traits as important determinants of transformational leadership (e.g., House, Spangler & Woycke, 1991, Judge, Bono, 2000, Judge et al, 2002). In this account, leaders´ behaviors are based on their personality and the selection of leaders with the right personality make up is the most effective way to develop transformational leadership throughout the organization. Our study contributes to this debate by adding the system of values and beliefs of managers in the transformational and transactional leadership model. Our study shows that in the mental maps of top executives, their philosophy of management and implicit theories of ability are strongly associated with their leadership behavioral styles.

Practical Significance

The results of our study have practical relevance to increase the level of transformational leadership in organizations. The adoption of a specific leadership style is the final result of leader's personal characteristics, situational factors and follower characteristics. In this equation, the system of beliefs and implicit theories that leaders hold in their minds might prove to be an important determinant of their behavioral leadership style. Most training courses tend to emphasize skill development and focus mainly on the practice of behaviors consistent with transformational leadership. There is little emphasis in the governing system of generalized beliefs and assumptions that antecede leaders' behaviors. This type of training is likely to result in "situational learning" (Kim, 1993). Situational learning occurs when managers face a problem and improvise a solution on the spot changing a particular behavior, but without making any change in the manager's mental map. Training courses that emphasize the development of behavioral styles consistent with transformational leadership might likely result in situational learning or

what Argyris (1976) calls "single-loop" learning in his model. This learning might be effective in the short term. In the long term, however, "each problem is solved, but no learning is carried over to the next case" (Kim 1993, p. 46).

Argyris´ (1990, 1991) general model of individual learning states that people are taught since their early childhood how to act and these lessons are transformed into what he calls "theories of action" which contain rules and beliefs that guide their actions. His theory of individual learning suggests that most people change their action, but still hold the same governing belief system. This is what he calls "single-loop" learning. Yet, the "real" learning only occurs when people change their governing beliefs and, therefore, their actions, what he calls "double-loop" learning. Moving beyond single-loop learning toward double loop-learning requires having the appropriate tools for mapping the system of values and beliefs of managers and changing these beliefs. Teaching transformational leadership requires mapping key management beliefs and having a strategy for changing these beliefs. Transformational leaders differ from their transactional counterparts in their basic beliefs about managing people. In order to develop transformational leaders, we need to develop the set of rules, beliefs, and mental models that transformational leaders have in their minds about the relationship between their actions and the consequences on their subordinates. For instance, our results suggest that transformational leaders believe that people can be trusted and their competencies can be improved.

Thus, the development of transformational leaders will require acting not only upon their behaviors, but also on their value system to help them think differently. As our study shows, leaders who enjoy new and difficult tasks, who value the opportunity to learn and who think that abilities can be improved are more likely to report the use of a transformational leadership style to motivate their subordinates. In contrast, leaders who think that abilities are fixed and who prefer to work on routine tasks that they already know are more likely to report the use of transactional leadership styles to motivate subordinates.

Limitations and Future Research

This study uses intra-person correlations as a strategy to examine managerial cognition. We collected the data from a survey completed by executives on both measures - beliefs and actions. This could be interpreted as a problem of single-source biases. However, taking a micro-psychological approach to sense making, we interpret the intra-person correlations as an indication of mental associations that reveals important information for mapping and operationalizing belief systems and mental schemas. These methodological challenges are not new in managerial cognition. For example, Porac, Meindl, and Stubbart (1996) point out that "one of the greatest challenges facing research on managerial and organizational sense making is the development of consistent standards for defining and measuring cognitive phenomena." (p. xv). We followed the methodology successfully used by Priem (1996) who studied CEOs´ cognition by examining managerial responses to a questionnaire. He asked executives to complete a survey that required them to disclose their beliefs about the relationships between strategy, structure and environment. Furthermore, supporting our methodological strategy, we found differential effects of beliefs and assumptions on transactional and transformational leadership. These differential effects are not affected by single source biases since they are intra-individual comparisons.

These comparative results do provide a significant contribution to the leadership literature and help us to understand better some of the cognitive aspects behind the transformational leadership style. Future research on managerial cognition of transformational leadership may use alternative methodologies, such as neural networks, to map more precisely the links between specific beliefs and transformational behaviors.

In our study we have taken an individual approach to examine executives´ cognition. We focused on *intra*psychic cognitive phenomena as a first step to understand the thinking of transformational leadership. Yet, there is an increasing interest in modern cognitive research that emphasizes *inter*psychic cognitive phenomena (e.g., Weick, 1995). Following this trend, future research could go beyond the individual executive cognition to the top management team cognition. If we think of a top management team as a *cognitive group*, an interesting line for future research would be to study how the top management team functions as a collective mind. For example, one could study the distributed cognition regarding transformational leadership beliefs. This line of research is also consistent with new conceptualizations of leadership as a shared phenomenon within a team (e.g., Mayo, Pastor & Meindl, 2003).

Future research on the socio cultural factors that influence leaders´ management beliefs would also be valuable. There is some evidence that the socio-political context influence managers' values and beliefs. For example, leadership values following World War II became less authoritarian and more participative. In the mid 80s, Anzizu and Nueno (1984) stated that "In Spain, leaders who are adaptable are seen to be of particular importance" (cf. Bass 1990, p. 771). Today, our results show that top Spanish leaders view themselves as acting more as transformational leaders than as transactional ones. Because our data is perceptual we can not draw conclusions as to their actual behavior. However, it is interesting to note that executives´ espoused theories of action are more consistent with transformational leadership behaviors and a learning orientation. Future research examining how the socio cultural context has the power to change the governing belief system of leaders would be of relevance. This line of research would be of great interest to understand and manage, for example, expatriation as a process not only to acquire technical knowledge but also as a socialization tool for personal change and leadership development.

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Table 1. Descriptive statistics, reliability and correlations among all variables

	1	2	3	4	5	6	7	8	9	10	11
1. Age[1]											
2. Sex (1-M, 2-F)	-.24*										
3. Subordinates	-.22	-.03									
4. Tenure Co.	.38**	-.11	.00								
5. MBA (1-No, 2-Yes)	.02	.14	.06	.05							
6. International (0-No, 1-Yes)	.04	.14	-.11	-.14	.02						
7. Transformational lead.	.01	.07	-.12	-.05	-.02	.10	(.71)				
8. Transactional leadership	.03	.04	-.18	-.07	.04	.05	.50**	(.67)			
9. Performance Orientation	-.06	-.05	-.03	-.12	-.01	-.16†	.17	.36**	(.61)		
10. Learning Orientation	.14	.04	.06	-.20	.02	-.04	.23*	.04	.40**	(.66)	
11. Theory Y	.09	-.14	-.05	-.19	.03	-.10	.49**	.30**	.09	0,07	(.59)
Mean	*4.29*	*1.01*	*10*	*16.21*	*.42*	*1.41*	*4.02*	*3.78*	*3.97*	*4.11*	*4.16*
SD	*1.13*	*.11*	*6.96*	*10.85*	*.50*	*.50*	*.39*	*.57*	*.66*	*.60*	*.54*

N=76. † p<.10; * p< .05; ** p<.01. Reliabilities in parenthesis.

[1]Age was measure in categories according to the following: (1)-25, (2)26-34, (3) 35-44, (4)45-54, (5)55-60, (6)+60

Table 2. Results of the hierarchical regression analyses of Transformational and Transactional leadership on CEO´s goal orientation and philosophy of management.

	TRANSFORMATIONAL LEADERSHIP		TRANSACTIONAL LEADERSHIP	
Controls				
Age	-.01	-.13	.11	.18
Sex	.03	.07	.04	.09
Number of Subordinates	.06	.05	.01	.04
Tenure Co.	-.02	.14	-.07	-.09
International Experience	.04	.01	.08	.10
MBA (1-No, 2-Si)	.07	.11	.00	.01
Transformational lead.	-	-	**.45****	**.41****
Transactional leadership	**.45****	**.36****	-	-
Goal Orientation				
Learning Goal orientation		**.27****		**-.26***
Performance Goal Orientation		-.07		**.40****
Philosophy of Management				
Theory Y		**.43****		.03
Adjusted R2	.15**	.36**	.15**	.26**
Change in R2		.21**		.11**

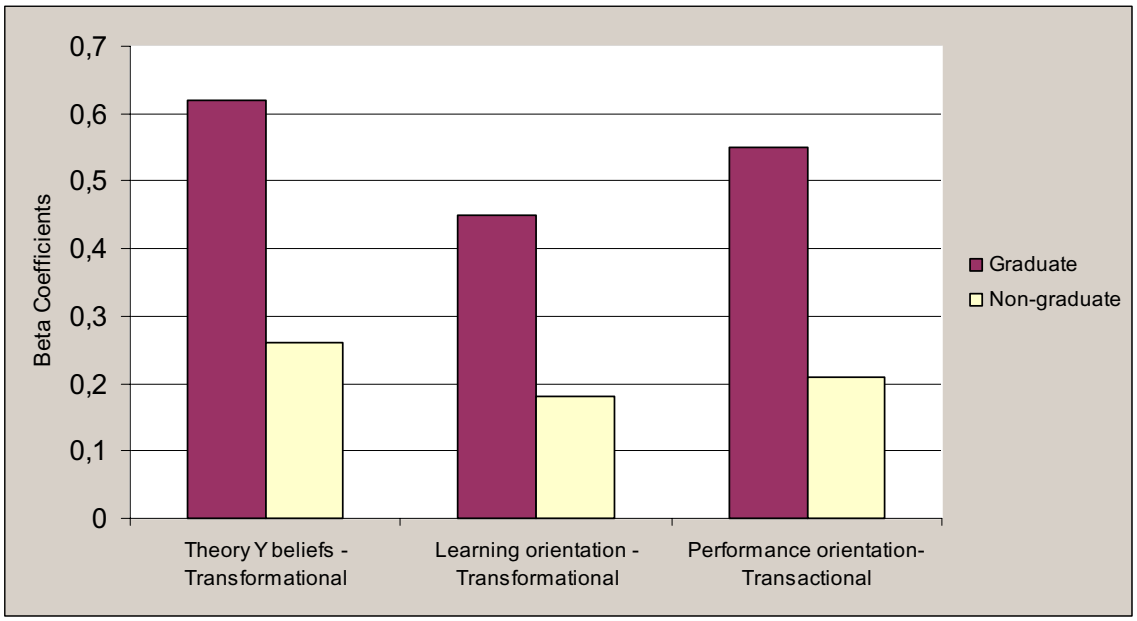
N=76. † p<.10; * p< .05; ** p<.01.

Table 3. Differential Effects for MBA and Non-MBA CEO´s of congruence between beliefs and action. Betas are from regression analysis on subsample of CEO´s with MBA and without MBA

	TRANSFORMATIONAL LEADERSHIP		TRANSACTIONAL LEADERSHIP	
	Beta	**N**	**Beta**	**N**
Theory Y				
MBA subsample	.62**	*31*	.01	*31*
Non-MBA subsample	.26*	*45*	.00	*45*
Pooled sample	.43**	*76*	.03	*76*
Learning goal orientation				
MBA subsample	.45*	*31*	-.31**	*31*
Non-MBA subsample	.18	*45*	-.22	*45*
Pooled sample	.27**	*76*	-.26*	*76*
Performance goal orientation				
MBA subsample	.02	*31*	.55**	*31*
Non-MBA subsample	-.01	*45*	.21	*45*
Pooled sample	-.07	*76*	.40**	*76*
F*				

† p<.10; * p< .05; ** p<.01.
Control variables include age, number of subordinates, international experience, company tenure and transformational leadership when predicting transactional leadership and viceversa.

Figure 1. Degree of association between values and leadership for CEO´s with and without graduate education.



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