Transformational Leaders and Work Performance: The Mediating Roles of Identification and Self-efficacy

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Abstract

In this study we investigate the connections between transformational leadership and subordinate formal and contextual performance among Brazilian employees. We also proposed and tested two mediating processes through which transformational leaders would enhance the performance of their staff: stronger follower identification with the leader and efficacy beliefs. These relations were tested with a sample of 107 managers from a multinational company that operates in the financial sector. The proposed structural equation model was assessed with Partial Least Squares (PLS) techniques. The results suggest that perceived transformational leadership is associated with higher levels of task performance and helping behaviors. Moreover, the proposed mediating processes were empirically supported. We discuss implications for theory and practice.

Key words: transformational leadership; identification; self-efficacy; task performance; helping behaviors.
Introduction

Given that influence in organizations is considered a fundamental route to promote alignment of corporate strategic goals and the actions of those striving to achieve them, the talent to convert employees into engaged agents has long been viewed as one of the skills essential to highly effective organizational leaders (e.g. Teal, 1998). Transformational Leadership Theory has been proposed with this focus (Lowe & Gardner, 2000) and has undergirded a number of scientific studies, becoming a leading stream of inquiry in the international literature (Antonakis, 2012; Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010). Several investigations in the US-EU contexts have ratified the ability of transformational leaders to influence employees’ attitudes and behaviors (e.g. Gardner et al., 2010; Judge & Piccolo, 2004; Lowe, Kreocke, & Sivasubramaniam, 1996). Nevertheless, the mechanisms by which these leaders exert their influence have yet to be fully understood (Kark, Shamir, & Chen, 2003; Piccolo & Colquitt, 2006).

In this research, we contribute to the literature on transformational leadership by examining how transformational leaders boost their followers’ performance. In our model, we consider two different performance outcomes: formal and contextual performance. We propose that transformational behaviors can elicit both cognitive and emotional processes that are associated with performance through two psychosocial mechanisms: follower-leader identification and the promotion of self-efficacy. To our knowledge, no previous research has simultaneously evaluated these two routes in regards to both objective measures of formal performance and contextual performance.

This investigation also aims to contribute to knowledge in the filed by verifying if transformational leadership is indeed effective in the Brazilian work context. Although a preference for transformational leaders has been observed in different countries (e.g. Walumbwa, Lawler, Avolio, Wang, & Shi, 2005), the North American bias of the approach (Den Hartog & Dickson, 2012) suggests that its generalizability should not be taken for granted. Differently from the US, management in Brazil is mostly exercised in state enterprises and family owned businesses, collectivistic values appear to predominate (Triandis, 1995) and informal social networks seem to be particularly valued (Prado, 1995). Although some research on transformational leadership can be found in the local management literature (e.g. Carvalho, Tanure, Santos, & Lima, 2012; Marchiori, Vilaça, Simões, Pinto, & Fonseca, 2010), quantitative field studies inspecting the connections between transformational leadership behaviors and follower performance are still scarce.

In this study, our proposed model is tested with data from a sample of Brazilian managers from a regional subsidiary of a multinational bank. Information was gathered from multiple sources, and corporate indicators were used as measures of formal performance. In addition, we controlled for the effects of gender, age, education and experience when analyzing the association between leadership and performance. Partial Least Squares (PLS) was used to assess the psychometric properties of the constructs involved and the connections between latent variables.

Theoretical Background and Hypotheses

Transformational leadership and follower performance

The charismatic-transformational approach to leadership has developed based on two seminal perspectives, Max Weber’s Theory of Charisma (1947) and Burns’ (1978) Transforming Leadership Theory. Bass (1985) coined the term transformational leadership, describing such leaders as change agents that elicit and transform followers’ beliefs, attitudes and motivations. These leaders provide a vision and develop an emotional relationship with their followers, increasing the latter’s consciousness and belief in higher goals, above their own interests. The specific behaviors of these leaders are
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classified into four dimensions: (a) **idealized influence**, (b) **inspirational motivation**, (c) **intellectual stimulus**, and (d) **individualized consideration**.

According to Bass (1985) **idealized influence**, or charisma, refers to the attributes ascribed by followers to their leader, according to their perceptions of the leader’s power, confidence and transcendent ideals. These perceptions are driven by specific behaviors of the leader that reflect his/her values and beliefs. It is this emotional component of leadership that drives followers to forgo their own comfort in favor of the collective interest, that is, in the search for a greater good. **Inspirational motivation** refers to leader’s behaviors aimed at inspiring and motivating followers to attain ambitious and challenging goals, or even apparently unattainable ones. **Intellectual stimulation** refers to the way a leader questions the *status quo* and appeals to the intelligence of followers to prompt them to question their own ideas, thus motivating innovative and creative decision-making. **Individual consideration** refers to the socio-emotional support given by a leader to his/her followers, in response to their specific needs, which promotes their development and empowerment.

Literature reviews and studies accumulated in recent years on transformational leadership show its positive association with performance outcomes (Avolio, 1999; Avolio, Bass, & Jung, 1995; Lowe *et al.*, 1996), particularly in private companies (Dumdum, Lowe, & Avolio, 2002). Similarly, meta-analyses covering empirical studies indicate that there is a strong connection between transformational leadership and subordinates’ formal task performance and contextual performance; *i.e.*, undertaking actions that go beyond formal roles, but that also contribute to the good functioning of the company (Judge & Piccolo, 2004).

In the last decade, researchers have made efforts to better understand the processes that explain why transformational leadership behaviors would promote subordinate performance (*e.g.* Bono & Judge, 2003; Kark *et al.*, 2003; Piccolo & Colquitt, 2006; Walumbwa, Avolio, & Zhu, 2008), highlighting some psychosocial phenomena that seem to be implicated. However, given the number of questions still unanswered, knowledge about the relationships that operate within leadership processes continued to be called for in recent reviews of scholarly studies (Gardner *et al.*, 2010). Our main goal is to further investigate the mechanisms fostered by transformational leadership that promote follower performance, as well as the specific effects of these influence processes on different performance criteria. In the next sections, we discuss transformational leadership and performance in Brazil and further argue the theoretical groundings of our proposed model.

**Transformational leadership and performance in Brazil**

Although national culture often instills idiosyncrasies in the organizational environment, which at times may render management practices recommended in the US-EU contexts less effective or not viable elsewhere (*e.g.* Nicholls, Lane, & Brechu, 1999), researchers have also observed some universal managerial values or principles (*e.g.* House, Hanges, Javidan, Dorfman, & Gupta, 2004; P. B. Smith, Dugan, & Trompenaars, 1996). The ever expanding worldwide media exchanges, the increasing level of development in business internationalization, the dissemination of business standards imposed by venture capital investors from developed countries, as well as the prevalence of US-EU business schools as the general choice for executive education are some of the factors in our contemporary world that foster the diffusion of such managerial trends and leadership approaches. The scholarly literature has suggested that the transformational paradigm should be extendable to nations other than the Anglo-Saxon countries (Bass, 1997). Indeed, findings from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) study (House *et al.*, 2004) corroborate the idea that some leadership attributes are universally perceived as essential facilitators or barriers to positive influence in the organizational context.

Brazil is an important developing nation, regionally and globally. Although the business environment in the country had mostly encompassed state owned organizations and family businesses, it has lately become an attractive nation for multinational companies and received significant direct foreign investments of US$ 660.5 billion in 2011—*the* equivalent to 30.8% of its gross domestic
product (GDP) (Banco Central do Brasil [BACEN], n.d.). Privatizations and the arrival of a number of global companies have changed the Brazilian management context, particularly in urban areas, and further fostered the trend to adopt international managerial models in the country (Carvalho, 2010).

One goal of this research is to examine transformational leadership processes and their outcomes in the Brazilian work context. In particular, we focus on the connections between transformational leadership and two performance dimensions: formal performance and contextual performance. While formal performance is defined as proficiency to carry out activities that are formally recognized as part of one’s jobs, contextual performance refers to the contributions made to the work environment that are supportive of formal performance; i.e., organizational citizenship behaviors (OCB) (Brief, 1998). Although OCBs are not necessarily incorporated into job descriptions, nor acknowledged by the formal reward system (Organ, 1988), they seem to contribute to organizational outcomes (Podsakoff, Whiting, Podsakoff, & Blume, 2009).

**Formal performance**

Since socio-historical threads have knit the Brazilian culture as largely hierarchical (Freitas, 1997), paternalistic and autocratic managerial styles seem to have predominated in the country. This may explain why Brazilians in leading roles are not likely to display transformational behaviors in dealing with their subordinates (c.f. Carvalho, 2010; Carvalho et al., 2012). Nevertheless, as observed by researchers involved in the GLOBE study, participants from Latin American countries such as Brazil ranked high on their endorsement of leadership dimensions such as charismatic/value based leadership, i.e. the ability to inspire and have high expectations for outstanding performance based on deeply held beliefs, and team-oriented leadership, i.e. emphasis on team building and developing group goals (Javidan, Dorfman, & House, 2006). Since idealized influence and inspirational motivation are transformational leadership behaviors attuned with these dimensions, we argue that when leaders show such attributes in Brazil they will be more likely to positively affect their subordinates’ formal performance.

Because transformational leaders provide constructive feedback to their followers, encourage them to think creatively about problems, and show the ability to convince them to exert effort, their subordinates should generally benefit from such influence and more easily achieve higher levels of formal performance. Recent growth that led to economic development in Brazil associated with a cultural preference for flexibility and creativity (Carvalho, 2010) should only encourage openness to transformational styles. As a matter of fact, a preference for transformational leadership compared with transactional styles has been observed among Brazilians in empirical studies (Fonseca, Porto, & Barroso, 2012). In addition, research has evidenced that transformational leadership is positively associated with managerial performance in the country (Cavazotte, Moreno, & Hickmann, 2012). Therefore, we propose a positive association between transformational leadership and individual follower outcomes.

**Hypothesis 1:** Transformational leadership is positively associated with subordinates’ task performance.

**Contextual performance**

Contextual performance, or OCBs, has been studied since the 1980s (Organ, Podsakoff, & MacKenzie, 2006; Podsakoff et al., 2009). They may involve behaviors directed to specific individuals, such as altruism (e.g. helping a coworker with a task), and also cooperative behaviors directed to the organization, such as generalized compliance (e.g. giving advance notice if unable to come to work) (C. A. Smith, Organ, & Near, 1983; Williams & Anderson, 1994). In this study, we focus on altruism. In general, it is defined as individuals’ discretionary helping behaviors directed towards others in work-related areas.
In the international literature, several studies corroborate the connection between transformational leadership and organizational citizenship behaviors (Judge & Piccolo, 2004; Lowe et al., 1996; Organ et al., 2006). Nevertheless, the reputed influence of transformational leaders on citizenship behaviors of followers remains to be verified in many parts of the world (Tsui, Nifadkar, & Ou, 2007). Some studies have highlighted that commitment to one’s supervisor should strongly predict OCBs in developing countries, which tend to fare somewhat higher on cultural aspects such as collectivism and power distance (Chen, Tsui, & Farh, 2002; Cheng, Jiang, & Riley, 2003). Walumbwa and Lawler (2003) also observed that the effects of transformational leaders on individual attitudes and behaviors tend to be stronger in collectivist countries. On the other hand, more recently, Kirkman, Chen, Farh, Chen and Lowe (2009) have reported only small differences in a causal chain linking transformational leadership to OCBs when comparing workers from the US and China.

Because transformational leaders are able to convince their followers to give priority to collective goals over individuals ones, they would be able to promote higher levels of collaboration in the work environment. Attitudes deeply rooted in affective processes seem to be particularly powerful at promoting helping behaviors towards others in organizations (Carmeli, 2005). Likewise, affective commitment has been associated with citizenship behaviors in the Brazilian literature (Siqueira, 2003). Recent studies in the country have also observed that attitudes of acceptance towards change are positively correlated with organizational citizenship in general, and with cooperation with others in particular (Almeida & Ferreira, 2010). Although empirical studies connecting transformational leadership and citizenship behaviors are rare in the Brazilian Management literature, authors have also put forward propositions linking transformational leadership with outcomes such as trust and team work (Correia, Mainardes, & Lourenço, 2010). In addition, empirical research has pointed to the relevance of leadership behaviors for subordinate cooperative outcomes that are analogous to citizenship (Duarte, Cavazotte, & Gobbo, 2012). Therefore, we hypothesize that transformational leadership will be positively associated with individual follower helping behaviors:

**Hypothesis 2:** Transformational leadership has a positive influence on subordinates’ helping behaviors.

**The role of psychosocial processes**

Because formal performance and contextual performance depend on different factors, we propose that transformational leadership will encourage task performance and helping behaviors through distinct processes. Drawing from Social Cognitive Theory (Wood & Bandura, 1989) and Social Identity Theory (Tajfel & Turner, 1979), in this article we focus on two psychosocial processes through which these performance outcomes are respectively enabled: self-efficacy and leader-follower identification processes. A few studies have explored these processes separately in the international literature. Their results have shown considerable variations in findings regarding both the mediating roles of self-efficacy (e.g. Walumbwa et al., 2008), and identification with the leader (e.g. Kark et al., 2003). We further emphasize their implications in the next sections.

**Self-efficacy and task performance**

In the past decades, the concepts of self-efficacy and collective efficacy have been investigated by various researchers in the organizational field, drawing on Social Cognitive Theory (Wood & Bandura, 1989). Self-efficacy is defined by Bandura (1997) as the belief in one’s capabilities to organize and execute the actions required to accomplish a task. Systematic analyses of accumulated studies indicate that self-efficacy is directly and positively related to individual performance (Stajkovic & Luthans, 1998).

Self-efficacy is associated with the confidence an individual has in his/her capacity in a specific area, and is considered to be one of the main factors to promote the achievement of goals. Therefore, it is assumed that the greater an individual’s self-efficacy is in relation to a certain activity, the greater will be his/her involvement and persistence in achieving it. Bandura (1986) affirms that four elements
in the social context can affect self-efficacy: (a) past achievements, that is, the experiences that make people believe in themselves; (b) observation of others, that is, the vicarious experience of success stories that can be followed as references; (c) verbal persuasion, i.e. the verbally transmitted stimuli that motivate people to believe in their own abilities, and (d) emotional state, i.e. the state of spirit or situation encountered by individuals. Conger and Kanungo (1988a) refer to the process by which individuals’ perceptions of their self-efficacy are intensified as empowerment. Articulating the importance of the work one has done, stimulating participation in decision processes, and inspiring confidence that performance will be high are leadership behaviors associated with transformational perspectives that have been connected with psychological empowerment (e.g. Ahearne, Mathieu, & Rapp, 2005; Zhang & Bartol, 2010).

The encouragement of efficacy beliefs is intrinsic to transformational leadership frameworks (Shamir, House, & Arthur, 1993). Because self-efficacy is a social cognitive process, we believe it is particularly relevant for task performance. Research has suggested that the influence of transformational leaders on the performance of subordinates is a consequence of how these followers think about themselves and their group (Bono & Judge, 2003; Gong, Huang, & Farh, 2009; Kark et al., 2003). Scholars have articulated various propositions regarding empowering elements (i.e., elements that intensify self-efficacy) in the range of behaviors associated with transformational leadership. For instance, in demonstrating determination and optimism, transformational leaders may inspire self-confidence in their subordinates. Actions such as delegation of duties, promotion of autonomy and encouragement of creativity can also be directly related to the social mechanisms that foster self-efficacy proposed by Bandura (1986).

Kirkpatrick and Locke (1996) observed that the effect of leadership on a follower’s performance was mediated by quality targets proposed by the leader and by the self-efficacy of the individual. Recent studies in the international literature have confirmed and also further scrutinized the association between transformational leadership, several foci of self-efficacy and empowerment at work (Den Hartog & Belschak, 2012; Gong et al., 2009). Given the connections already observed between psychological empowerment and performance among workers in different parts of the world, such as China and Taiwan (Gong et al., 2009; Zhang & Bartol, 2010), and also findings from Brazilian studies on the implications of self-efficacy for work behaviors (e.g. Fontes, Neri, & Yassuda, 2010), in this study we hypothesize that:

**Hypothesis 3:** Transformational leadership positively influences followers’ self-efficacy.

**Hypothesis 4:** Self-efficacy mediates the effect of transformational leadership on follower formal performance.

**Follower-leader identification and contextual performance**

Identity and identification processes have received close attention from many researchers in the field of leadership theory and development (Day & Harrison, 2007; Lord & Hall, 2005). At the individual level of analysis, personal identification and organizational identification are some of the concepts examined in the literature. Rooted in Social Identity Theory (Tajfel & Turner, 1979) and the seminal work of Ashforth and Mael (1989), Pratt (1998) defined identification with an organization as the integration in an individual’s self-concept of beliefs about the company that then become part of this person’s own identity. Following this definition closely, Kark, Shamir and Chen (2003) characterize personal identification with the leader as the process by which individuals’ beliefs regarding their leader become self-referential and are integrated into their own self-concept.

One of the propositions of the charismatic-transformational approach is that influence takes place as subordinates react to the leader’s personal style. Conger and Kanungo (1988b) discussed charisma as a product of attributions jointly determined by the leader’s behavior and abilities, as well as situational aspects. According to them, the process of primary influence is the personal identification of followers with the leader, derived from the desire to imitate and thank the leader for his or her extraordinary attributes.
According to Shamir, House and Arthur (1993), charismatic leaders act as role models, and thus their power and influence flow from the admiration of their followers and their consequent espousing of the beliefs, feelings and behaviors they see in the leader. In expanding the charismatic theory of leadership, Shamir, Zakay, Breinin, and Popper (1998) pointed to three elements in charismatic leaders’ actions that explain the leader-subordinate identification process: emphasis on ideology, emphasis on collective identity and exemplary behaviors. By articulating a team’s mission in terms of ideas, by interpreting the present and past in terms of central values to a collectivity, and by demonstrating self-confidence and personal commitment to the group’s mission, charismatic leaders establish a connection between the values and principles necessary to achieve the defined mission and bring about the behaviors expected of collaborators.

These frameworks have all at their core the notion that internal values, channeled either by affective connections or shared principles between followers and leaders, create in the followers motivations to behave in certain ways. Thus, the idea that the subordinates’ identification with the leader would prompt followers to act seems implicit in transformational leadership theory. Kark et al. (2003) have presented some evidence that individuals will develop stronger personal identifications with transformational leaders in the workplace, but their findings regarding effects of follower-leader identification on formal performance showed inconclusive results. Nevertheless, unlike task performance, contextual performance such as helping behaviors are more volitional in nature, and should be more sensitive to emotional processes prompted by values and inherent to attitudes (Brief, 1998) that transformational leaders can influence.

Brazilian scholars also argued that identification processes are likely to lay at the core of consented influence, through which strong connections between reference leaders and their followers are established (e.g. Davel & Machado, 2001). In addition, scholars have also observed that leaders who are trusted and with whom individuals tend to identify with are more capable of promoting higher levels of collaboration (Cremer & Knippenberg, 2002, 2005). Therefore, we propose that identification processes are likely to be a via through which transformational leaders will foster helping behaviors among their followers, and present the following hypotheses:

**Hypothesis 5:** Transformational leadership has a positive influence on follower-leader identification.

**Hypothesis 6:** Follower-leader identification mediates the effect of transformational leadership on follower helping behaviors.

Figure 1 shows the model proposed.
Figure 1. Theoretical Model: Direct and Indirect Effects of Transformational Leadership on Performance Measures.
Methods

Research setting and participants

This study was conducted with managers from a multinational financial group that operates in Brazil. They worked in the commercial area of the organization, in the several branches that entail the East Regional Division of the bank, which encompassed the central and northern neighborhoods of Rio de Janeiro. That division included banking service stations and electronic service stations, but due to the different demands and work conditions involved in the two types of units, in this study we focused only on managers that worked in banking service stations (a total of 125 employees).

Potential participants were asked to answer an electronic questionnaire developed for the purpose of the study. A login and individual password were created and sent by e-mail directly to each branch manager, along with the invitation to respond to the survey. The invitation contained clarifications about the purpose of the research, and assured the participants of the confidentiality of the information they sent. In the questionnaires, each branch manager assessed the transformational leadership behaviors of his/her immediate supervisor (general managers), and provided information on his/her self-efficacy and identification with the leader.

Another electronic questionnaire was made available on the company’s intranet to collect data on the participant’s helping behaviors. This questionnaire was answered by their immediate supervisors (general managers), and confidentiality guarantees were assured to them as well. Formal performance indicators and additional occupational information of participants were provided by the company’s regional manager, based on regular assessment reports retrieved from internal managerial control and Human Resources information systems.

Because at the time of data collection a few managers had been internally transferred, promoted or dismissed or were on vacations or health and maternity leaves, from the 125 employees that were invited to participate in the study, 107 completed the questionnaire, which represents a response rate of 86%. Of the participants, 61.7% were women and 53.3% had at least a bachelor’s degree. The average age was 33.2 years, ranging from a minimum of 18 to a maximum of 58. All the participants worked in very similar functions and were responsible for achieving similar targets. They had been with the firm for at least three years at the time of the survey and served at least one year under their immediate managers.

Measures

Transformational leadership. Due to its short length and free access, we used the 14 transformational items from the leadership behavior scale developed by Pearce and Sims (2002) to measure four dimensions of transformational leadership: Vision, Idealism, Inspirational Motivation and Intellectual Stimulation. Sample items are Because of my manager I have a clear vision of our group’s purpose, My manager shows enthusiasm for my efforts, My manager is driven by higher purposes and ideals, and My manager looks at problems from many different angles. The original Cronbach’s alpha for this measure was 0.81.

Follower-leader identification. Following the procedures adopted in previous studies (Kark et al., 2003), we used an adapted version of the 5-item scale of Ashforth and Mael (1989). Sample items are When someone criticizes my manager, it feels like a personal insult and My manager’s successes are my successes. The original Cronbach’s alpha for this measure was 0.82.

Self-efficacy. We used a short version (the four positively worded items) of the self-efficacy scale developed by Riggs, Warka, Babasa, Betancourt and Hooker (1994). Sample items are I have confidence in my ability to do my job and I am very proud of my job skills and abilities. The original Cronbach’s alpha of this measure was 0.86.
**Task Performance.** Formal performance information was provided to the researchers as a set of four quantitative indicators, which were used by the bank to monitor branch results and evaluate managerial performance. They cover different facets of managerial performance related to the individual’s impact on net revenue, margin of contribution, strategy implementation and customer satisfaction. These criteria are used by the company to make personnel decisions and are taken into consideration in their reward systems. Because these four indicators were measured on different scales and due to non-disclosure agreements regarding the financial results of the company, we normalized the information we received so that their new measures followed a continuous scale ranging from 1 (lower level of performance compared to peers) to 7 (higher level of performance compared to pairs).

**Helping Behaviors.** We used the items from the OCB scale developed by C. A. Smith, Organ and Near (1983) to measure altruism. Sample items are **helps others who have heavy workloads** and **volunteers to things that are not required.** The original Cronbach’s alpha for this measure was 0.86.

Except for formal role performance, all abovementioned measures used 5-point Likert scales ranging from 1-**Completely disagree** to 5-**Completely agree.**

**Control variables.** Control variables used in this research were participants’ level of education attained, gender, and age. Hierarchical level at current position, as indicated in the company’s hierarchy, was used as a proxy for job experience.

**Results**

Our analysis suggested that the indicators did not conform to the multivariate normality premise of structural equation modeling techniques (SEM). For this reason, the proposed model was assessed with Partial Least Squares (PLS), which is a robust method in regards to departures from multivariate normality, multicollinearity within and between blocks of manifest variables, and model misspecification; it can also accommodate small sample sizes, reflexive and formative constructs, and moderation effects (Chin, 2010; Urbach & Ahlemann, 2010; Vinzi, Trinchera, & Amato, 2010). Model estimation and statistical testing were performed with SmartPLS version 2.0 (Ringle, Wende, & Will, 2005). We employed a percentile bootstrapping technique (cases = 107; samples = 1,000) to evaluate the statistical significance of the estimated effects, which is a distribution free approach to significance testing (Chin, 2010).

In the first stage of data analysis, we used Wetzels, Odekerken-Schröder and Oppen’s (2009) procedure to assess the psychometric properties of the constructs. The nine first-order latent variables were interconnected in a null model in SmartPLS, which was then estimated using the factor weighting scheme available in the software (see also Tenenhaus & Hanafi, 2010). According to Chin (2010), adequate measurement models must exhibit loading patterns with the following characteristics: (a) item loadings must be high and statistically significant; (b) cross loadings must be lower than item loadings; (c) the range of variation of loadings of a same construct must be narrow. Items with high cross-loadings and that generated low average variance extracted (AVE) values (Chin, 2010; Hair, Black, Babin, & Anderson, 2009; Vinzi et al., 2010) were iteratively removed. In the final cross-loadings matrix, all items loaded appropriately on their respective latent variables and had statistically significant values (p < 0.001). Of the 35 estimated loadings, 28 were above 0.70 and seven were above 0.62, which indicates that at least 50% of the variance of most items included in the model could be explained by the associated latent variables.

Table 1 presents the overall results for the final measurement model, including the composite reliability (CR), Cronbach’s alpha ($\alpha_c$), and the average variance extracted (AVE) for the first-order latent variables. The AVE and CR measures obtained for all measures are above the minimum values suggested in the literature (AVE>0.5; CR>0.7) (Chin, 2010; Fornell & Larcker, 1981; Hair et al., 2009; Vinzi et al., 2010). The Cronbach’s alpha for most measures, except for self-efficacy, vision and
inspirational motivation, were also within the recommended limits ($\alpha_c > 0.7$). It is important to highlight that composite reliability (CR) is a better indicator of the reliability of a scale than Cronbach’s alpha, which assumes tau equivalence among the measures (Chin, 2010). Therefore, the scales used to assess the first-order constructs of the proposed model showed adequate internal consistency and convergent validity (Fornell & Larcker, 1981; Hair et al., 2009). On the other hand, the square root of AVE for each latent variable was greater than all of its correlations with the remaining latent variables. This allows us to conclude that the measurement model also had adequate discriminant validity (Chin, 2010; Fornell & Larcker, 1981; Hair et al., 2009).
Table 1

Results for Measurement Model: First-Order Variables

<table>
<thead>
<tr>
<th>First-order Latent Variables</th>
<th>Indicators</th>
<th>Loads</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>CR</th>
<th>$\alpha_C$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TL vision</td>
<td>3</td>
<td>0.73-0.85</td>
<td>6.57</td>
<td>0.51</td>
<td>0.82</td>
<td>0.67</td>
<td>0.78*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. TL idealism</td>
<td>3</td>
<td>0.83-0.92</td>
<td>6.40</td>
<td>0.71</td>
<td>0.91</td>
<td>0.84</td>
<td>0.34</td>
<td>0.87</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>3. TL insp. motivation</td>
<td>2</td>
<td>0.81-0.82</td>
<td>6.43</td>
<td>0.70</td>
<td>0.80</td>
<td>0.50</td>
<td>0.49</td>
<td>0.34</td>
<td>0.82</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4. TL int. stimulation</td>
<td>4</td>
<td>0.63-0.85</td>
<td>6.14</td>
<td>0.71</td>
<td>0.83</td>
<td>0.73</td>
<td>0.57</td>
<td>0.42</td>
<td>0.41</td>
<td>0.74</td>
<td></td>
<td></td>
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<td>5. Identification</td>
<td>5</td>
<td>0.64-0.79</td>
<td>5.58</td>
<td>1.00</td>
<td>0.85</td>
<td>0.79</td>
<td>0.28</td>
<td>0.34</td>
<td>0.19</td>
<td>0.29</td>
<td>0.73</td>
<td></td>
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<tr>
<td>6. Self-efficacy</td>
<td>4</td>
<td>0.62-0.76</td>
<td>6.59</td>
<td>0.53</td>
<td>0.80</td>
<td>0.68</td>
<td>0.43</td>
<td>0.22</td>
<td>0.34</td>
<td>0.24</td>
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<td>7. Performance</td>
<td>4</td>
<td>0.79-0.84</td>
<td>6.17</td>
<td>0.64</td>
<td>0.89</td>
<td>0.83</td>
<td>0.32</td>
<td>0.35</td>
<td>0.29</td>
<td>0.40</td>
<td>0.36</td>
<td>0.33</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>8. Helping behaviors</td>
<td>4</td>
<td>0.66-0.78</td>
<td>5.56</td>
<td>1.01</td>
<td>0.82</td>
<td>0.72</td>
<td>0.11</td>
<td>0.24</td>
<td>0.09</td>
<td>0.20</td>
<td>0.37</td>
<td>0.22</td>
<td>0.44</td>
<td>0.73</td>
</tr>
</tbody>
</table>

*Note. * The values in the diagonal are the square root of the corresponding AVE. The remaining variables are the correlations between the first-order latent variables.
In the second step of the analysis, we evaluated the measurement model for Transformational Leadership (a second-order reflexive construct) following Wetzels et al. (2009) method. The 12 items used to measure the four dimensions of the construct were strongly associated with their respective latent variables. Nine of the estimated loadings were above 0.70, and three above 0.65. All of them were statistically significant to a level of 0.1%. As shown in Table 2, the AVE and CR values were well above the suggested limits, thereby supporting the second-order measurement model proposed for Transformational Leadership.

Table 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Loads</th>
<th>AVE</th>
<th>CR</th>
<th>αc</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vision</td>
<td>0.72-0.83</td>
<td>0.60</td>
<td>0.82</td>
<td>0.67</td>
</tr>
<tr>
<td>2. Idealism</td>
<td>0.82-0.92</td>
<td>0.76</td>
<td>0.91</td>
<td>0.84</td>
</tr>
<tr>
<td>3. Inspirational Motivation</td>
<td>0.79-0.84</td>
<td>0.67</td>
<td>0.80</td>
<td>0.50</td>
</tr>
<tr>
<td>4. Intellectual Stimulation</td>
<td>0.65-0.84</td>
<td>0.55</td>
<td>0.83</td>
<td>0.73</td>
</tr>
</tbody>
</table>

After confirming the adequacy of the measurement model, we assessed the structural model. Gender, age, education and experience in the current function were added as control variables for the exogenous latent variables (task performance and helping behaviors). Results for the variance inflation rate (VIF) and tolerance revealed no multicollinearity problems in the set of control variables. None of them had statistically significant effects on both criteria (α = 0.05).

As opposed to covariance-based SEM, in PLS, there is no established global goodness-of-fit index (Chin, 2010; Hair, Sarstedt, Pieper, & Ringle, 2012; Urbach & Ahlemann, 2010). Instead, model quality is usually assessed in terms of predictive capability, based on the R² values obtained for latent dependent variables (Urbach & Ahlemann, 2010). For instance, in Hair, Sarstedt, Pieper and Ringle (2012) analysis of the usage of PLS in Strategic Management research, over 80% of the studies presented only multiple correlation coefficients to account for the inner model quality. Similar results were obtained by analyses of the Marketing and the Management Information Systems (MIS) literatures (Hair et al., 2012).

On the other hand, as in a covariance-based SEM analysis, the hypotheses that are represented in the inner model can be tested by evaluating the significance and sign of the estimated standardized path coefficients (Hair et al., 2012; Urbach & Ahlemann, 2010). Resampling procedures such as bootstrapping should be used to assess statistical significance (Chin, 2010; Hair et al., 2012; Urbach & Ahlemann, 2010).

Figure 1 presents the values obtained for the structural loadings and the variance explained for each latent variable. The proposed model was able to account for a reasonable proportion of the variance of our dependent variables; i.e., task performance (R² = 0.27) and helping behaviors (R² = 0.17). The values for the mediators were slightly lower than the latter (R² = 0.15 for self-efficacy; R² = 0.13 for identification with the leader). Thus, the overall predictive capacity of the model is moderate to low. Nevertheless, most path coefficients were above 0.30 and only one, between transformational leadership and altruism, was below 0.20. When taken together, these results suggest that the overall prediction performance of the model was adequate, and the estimated effects for latent variables, meaningful (Urbach & Ahlemann, 2010).
Figure 2. Results for the Structural Model.

N = 107; * p < .05; ** p < .01; *** p < .001.
Six of the seven hypothesized relationships were empirically supported. The direct effects of transformational leadership on follower-leader identification, self-efficacy, and task performance were statistically significant (p < 0.001). Although the proposed direct influence of transformational leadership on helping behaviors was not corroborated by the PLS results, the values obtained with the percentile bootstrapping method described by Chin (2010) showed that the former construct did have a statistically significant indirect effect on the latter through its effect on follower-leader identification ($\beta_{TL-ID,HELP} = 0.13$, p < 0.001). Therefore, identification seems to fully mediate the effect of transformational leadership on helping behaviors. On the other hand, the results indicate that self-efficacy partially mediates the influence of transformational leadership on performance. Although the corresponding indirect effect was small, the percentile bootstrapping method showed that it was highly significant ($\beta_{TLSE,PERF} = 0.08$, p < 0.001).

Discussion and Conclusion

Transformational leadership is an approach that has had an immense impact on leadership as a field of inquiry (Antonakis, 2012). The results described above indicate that transformational leadership seems to be associated with increased levels of performance and helping behaviors in the Brazilian work context. Our research also observes that subordinates of individuals that are perceived as transformational leaders report stronger identification with their superiors and higher levels of self-efficacy regarding their work. In addition, we proposed and found preliminary evidence that these two mechanisms, identification and efficacy beliefs, can be routes through which transformational leaders are likely to promote follower contextual and task performance.

From a theoretical perspective, the contributions of this study are twofold. On the one hand, it expands the generalizability of transformational leadership theory beyond the limits of US-EU contexts and into the Brazilian workplace, thereby answering the call for research on leadership in more diverse cultural settings (Den Hartog & Dickson, 2012; Gardner et al., 2010). On the other hand, it contributes to knowledge regarding how transformational leaders encourage follower performance by looking at psychosocial processes that have implications for work behaviors, an initiative that has long been asked for in the literature (Antonakis, 2012; Kark et al., 2003; Lowe & Gardner, 2000).

Although previous studies have examined the roles of identification with the leader and self-efficacy as mediating processes in the relationship of transformational leadership with work outcomes, most research has looked into these processes separately. We argued that these two psychosocial routes engage different mental processes, more cognitive or emotional in nature, and therefore are prone to promote particular performance outcomes that more strongly require each of these processes. This is the first study we are aware of that simultaneously considers these two processes coupled with two different performance outcomes, formal and contextual performance. In addition, granted that Walumbwa, Avolio and Zhu (2008) examined somewhat similar processes, in their research the focus of identification was not the leader, but the team, and only subjective measures of formal performance were considered. It is worth mentioning that the magnitude of the correlation between transformational leadership and self-efficacy observed in our study was almost the same as the one Walumbwa, Lawler, Avolio, Wang and Shi (2005) observed for US employees, both substantially larger than values they verified in their study for employees from India and China. This suggests that Brazilian employees similar to those in our sample tend to react to transformational leaders in ways more akin to individuals from developed countries rather than those in traditional or transitional societies.

From a practical perspective, this study suggests that developing transformational capabilities seems to be worth the effort for those who wish to take part in leadership roles, as well as those who want to sponsor leadership development programs. Given that even charisma, once understood as a stable trait, seems to be possible to develop (c.f. Antonakis, Fenley, & Liechti, 2011) and that transformational leadership training has been shown to be valuable to individuals in distinct
organizational levels (Antonakis, 2012; Lowe et al., 1996), our findings should encourage the expansion of teaching and training agendas that include transformational development strategies in Brazil. In addition, the connections here observed also offer initial support for the inclusion of transformational leader assessments in recruitment, selection and promotion processes as criteria that can help identify potential for leadership.

Self-efficacy partially mediated the effect of transformational leaders on task performance – therefore, it seems that one of several ways transformational behaviors boost subordinate performance is by increasing confidence on their ability to do their jobs. Thus, focus on transformational development that emphasizes empowering initiatives should be recommended. On the other hand, the full mediated observation for identification with the leader suggests that transformational leaders will only promote helping behaviors as far as their followers become closely identified with them. Since identification is a process related to shared values and beliefs, efforts should be made to also leverage the value compatibility between leaders and followers in work assignments, particularly in context where collaboration is an important target.

It is important to note that this study has a few limitations, to which we now turn our attention. First, even though we checked the reliability of the instruments we used, applied objective measures of task performance to control for judgment biases, and collected data from multiple sources to minimize common method effects (managers evaluating helping behaviors of subordinates and the latter providing leadership assessments), because there was no experimental manipulation and only cross-sectional data was collected, causality cannot be taken for granted. It is worth mentioning, however, that in the international literature most of the evidence thus far gathered endorsing transformational leadership theory comes from cross-sectional studies (Gardner et al., 2010), with designs equivalent to the one used in this study. Yet, the call for longitudinal research remains unanswered and should be addressed by researchers in their future endeavors (c.f. Antonakis, 2012).

In our investigation, leaders are actual managers and their subordinates are employees in an actual work setting. This is an important strength of the study, which, in this way, was able to investigate the phenomena of interest in a real workplace context. Nevertheless, our conclusions were derived based on only one sample of employees from a single organization in the financial sector, thereby restricting the generalization of our findings.

Because reciprocal ratings based on leader-subordinate dyads were used in our study, there is a possibility that some relational factor (e.g. similarity, likability) could be also driving the associations between leadership predictors and subjective performance criteria (OCB). Nevertheless, one of the unique features of transformational leaders is that they are held in high regard by their followers – the idea that such leaders will be more likable due to shared ideals and their potential for satisfying followers’ needs is in fact implicit to transformational leadership theory (see Dvir, Eden, Avolio, & Shamir, 2002). Clearly, only supplemental longitudinal research will allow more definitive conclusions in this regard. Moreover, future cross-sectional studies could alternatively apply co-worker ratings of OCB, since peers might have closer and more frequent contact with an employee compared to supervisors, and also provide an independent representation of their OCBs.

Although the decision to limit our study to managers from a single organization and from a particular region in Brazil was helpful to rule out the effects of intervening organizational and cultural factors (c.f. Hofstede, Hilal, Malvezzi, Tanure, & Vinken, 2010), there remains the need to replicate our findings at different organizational levels, industries, regions, and occupational groups in Brazil. Future research should also investigate alternative mechanisms that may explain how transformational leadership yields higher levels of employee performance, such as the clarification of roles and tasks carried out and the promotion of goal commitment. The implications of transformational leadership for attitudes and additional behaviors in the organizational environment, such as job satisfaction and employee turnover, are another topic that deserves further examination. Future studies should also investigate the implications of specific cultural values, such as personalism, power distance, uncertainty avoidance and short-term perspectives for transformational leadership in Brazil, also endeavoring in sound cross-cultural comparisons.
Even though research on transformational leadership seems to have achieved maturity in the international literature, it is still important to test additional aspects of the theory in the Brazilian context. In particular, the identification of individual characteristics of leaders and situational conditions that draw out inspiration, idealism, consideration and intellectual stimulus seems important to improve our understanding of the psychological, interpersonal and social roots of transformational behaviors. Such knowledge is essential to better prepare those who will meet the challenges of contemporary organizational leadership in the Brazilian public and private spheres.

References


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