



Do transformational CEOs always make the difference? The role of TMT feedback seeking behavior

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ABSTRACT

In the present paper, we raise the question whether CEO transformational leadership invariably makes a difference for team performance and change effectiveness. Since in general, CEOs are surrounded by a team of highly influential top managers, we argue that the effectiveness of CEO transformational leadership is contingent on the feedback seeking behavior of their top management team (TMT). Data from 38 TMTs and their CEOs demonstrated that transformational leadership was positively related to both TMT performance and effectiveness of organizational change, but only when the TMT engaged in low levels of feedback seeking behavior. As predicted, there was no relationship between CEO transformational leadership and performance and change effectiveness for teams exhibiting high levels of feedback seeking behavior. These findings suggest that for high-feedback seeking TMTs, organizational results can be achieved without a transformational CEO.

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1. Introduction

“Our stereotypic view of outstanding leadership, a rather romantic view, where the focus is on the leader, has led us to discount the importance of close followers.”

(Mumford, 2006, p. 166)

The praise and awe for transformational leaders seem endless nowadays. Transformational leadership has become a silver bullet for achieving success in organizations (Flood et al., 2000; Ling, Simsek, Lubatkin, & Veiga, 2008). The relevance of CEO leadership for organizational performance during organizational change seems also undisputed (Ling et al., 2008). Transformational CEOs play an important role in effectively achieving change, because they encourage organizational members to constantly anticipate and adapt to change (Jung, Wu, & Chow, 2008; Waldman, Javidan, & Varella, 2004).

At the same time, practice shows that not all CEOs of successful organizations are transformational leaders (Yukl, 2008). Some authors explicitly do not mention CEO transformational leadership as a necessary ingredient for turning a new strategy into organizational performance (e.g., Mankins & Steele, 2005). Moreover, Landrum, Howell, and Paris (2000) claim that charismatic leaders – a concept closely related to transformational leadership (Bass, 1985; Conger & Kanungo, 1998) – may not be a universal remedy for organizations (see also Khurana, 2002). Accordingly, Tosi, Misangyi, Fanelli, Waldman, and Yammarino (2004) found that CEO charisma did not relate to any firm performance measures.

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This begs the question whether organizations always need a transformational CEO in order to perform well and to effectively manage change. One explanation might be that little is known about the processes by which CEOs impact firms and management teams. In this respect, [Carpenter, Geletkanycz, and Sanders \(2004\)](#) plea to look at the unexplored interactions between CEOs and their management team. [O'Reilly, Snyder, and Boothe \(1993\)](#) take this call one step further, and argue that instead of the CEO, it is the top management team (TMT) that has the largest effects on organizational functioning, because the TMT is the key decision-maker within the organization. Indeed, research shows that a TMT has a strong impact on several organizational outcomes (e.g., [Cannella, Park, & Lee, 2008](#); [West & Anderson, 1996](#)). Also, a TMT can be seen as a group of internal change agents who are capable of fostering organizational change.

In the present paper, we adopt a contingency lens to examine the importance of CEO transformational leadership in TMTs. We expect that transformational leadership will be very important for some TMTs, but may be superfluous for other TMTs. This fits in the tradition of situational leadership theories such as the situational leadership theory of [Hersey and Blanchard \(1969, 1993\)](#) and the substitutes for leadership theory of [Kerr and Jermier \(1978](#); see also [Jermier & Kerr, 1997](#)). One of the key suggestions of [Kerr and Jermier \(1978\)](#) is that the presence of certain substitutes for leadership will affect the relationship between leader's behavior and the criterion (see [Dionne, Yammarino, Howell, & Villa, 2005](#)). Although criticized (see e.g. [Dionne, Yammarino, Atwater, & James, 2002](#)), there is a strong call for research on the substitutes for leadership theory, especially in the field of senior-level leadership and CEO transformational leadership ([Dionne et al., 2005](#)).

More specifically, we expect the relationship between CEO transformational leadership and team performance and change effectiveness to be dependent upon the qualities of the TMT. In line with the work of [Ashford and Tsui \(1991\)](#), we propose that effective TMTs actively seek feedback to improve their performance. Feedback provides these top managers with guidance about strategies and actions that could enhance their effectiveness as a team; it gives TMTs insight in whether their behavior is consistent with the goals they pursue ([Ashford, 1986](#); [Ashford & Tsui, 1991](#)). In those TMTs, we expect that transformational leadership will have little to add. We test this proposition in a field study among 38 TMTs and their CEOs. By doing so, we contribute to both transformational leadership theory and situational leadership theories. Also, we aim to gain insight into the functioning of both CEOs and top management teams, in order to improve organizational practice.

2. CEO transformational leadership

According to the definition of [Bass \(1985\)](#), transformational leadership consists of intellectual stimulation, inspiration, idealized influence (or charisma) and individualized consideration. [Podsakoff, MacKenzie, Moorman, and Fetter \(1990\)](#) extended this definition with two additional dimensions: supporting followers to work toward goals and encouraging cooperation between team members. [Yukl \(1989\)](#) states that transformational behaviors of the leader make followers trust and respect the leader, and, in turn, motivate them to perform. Empirical data support the effectiveness of transformational leadership. Several meta-analyses have confirmed a general positive relationship between transformational leadership and outcome variables, such as job satisfaction and commitment in followers (see [DeGroot, Kiker, & Cross, 2000](#); [Fuller, Patterson, Hester, & Stringer, 1996](#); [Judge & Piccolo, 2004](#); [Lowe, Kroeck, & Sivasubramaniam, 1996](#)). Moreover, transformational leadership stimulates teams' collective efficacy, and, in turn, increases team performance ([Sivasubramaniam, Murray, Avolio, & Jung, 2002](#)).

A number of studies focused specifically on the transformational behavior of CEOs (e.g. [Jung et al., 2008](#); [Ling et al., 2008](#); [Peterson, Walumbwa, Byron, & Myrowitz, 2009](#)), confirming the importance of CEO transformational leadership, also with respect to the functioning of a TMT. In their study, [Flood et al. \(2000\)](#) found that transformational leadership was positively related to TMT effectiveness and that this relationship was partly mediated by consensus decision making ([Flood et al., 2000](#)). However, [Tosi et al. \(2004\)](#) argue that the importance of CEO charisma is severely overrated. In a study among CEOs from the largest firms in the United States, these authors ([Tosi et al., 2004](#)) found no significant direct relationships between CEO charisma and firm performance.

Apparently, results on the effectiveness of transformational or charismatic CEOs are not unambiguous. Consequently, [Cole, Bruch, and Shamir \(2009\)](#) concluded that there are 'mounting calls' (p. 1699) to identify the situations or conditions under which transformational leadership is more or less effective.

3. Ready for self-direction: the role of TMT feedback seeking behavior

Characteristics of TMTs have been studied for several years, most prominently in the upper echelon perspective of [Hambrick and Mason \(1984](#); see also the work of [Hambrick, 1994, 1995, 1998](#)). In proposing new research directions with respect to this upper echelon perspective, [Carpenter et al. \(2004\)](#) argued for a closer look at team processes, and at the differences between roles of the TMT and roles of the CEO. This call fits rather well with the theoretical framework of situational leadership theories. The impact and effect of the CEO might be dependent upon the level of self-direction of the TMT. A transformational leader might have a strong positive effect on TMTs that are – in terms of the situational leadership theory – not very 'mature' (see [Thompson & Vecchio, 2009](#)). In contrast, for TMTs who are more mature and ready for self-direction ([Thompson & Vecchio, 2009](#)), or teams that already actively regulate matters themselves ([Ashford & Tsui, 1991](#); see also [Manz & Sims, 1980](#)), the need for CEO transformational leadership might be less present.

When it comes to self-direction or self-regulation, information processing is one of the crucial skills for TMTs ([Haleblian & Finkelstein, 1993](#)). It consists of constantly seeking and receiving feedback with regard to performance, internal processes, and the distance toward goals. Feedback seeking behavior is defined as getting information on the degree of goal completion

(Schippers, Den Hartog, & Koopman, 2007). Feedback seeking behavior is indispensable for TMT performance, because it enables the team members to monitor and, if necessary, adjust their own actions (see also Garcia-Morales, Mathias-Reche, & Hurtado-Torres, 2008). Especially if TMT members search for and exchange information among each other, they seem to be better suited for achieving performance and change effectiveness. Consequently, one can expect that these teams are able to initiate and structure their information processing themselves, and therefore don't need a transformational CEO to guide these processes.

Three decades of research have provided insights in the antecedents, motives, patterns, and outcomes of feedback seeking behavior. It has been shown that actively seeking information and feedback is related to team success (Ancona & Caldwell, 1992). Importantly, little empirical attention has been given to the feedback seeking dynamics of those at the top of an organization or unit (Ashford, Blatt, & VandeWalle, 2003). Although, to our knowledge, no empirical results on the effects of feedback seeking behavior of TMTs exist, several related team process variables have been empirically tested (see e.g. Carmeli & Schaubroeck, 2006). For instance, O'Reilly et al. (1993) studied team dynamics, defined as the patterns of interaction and influence among the TMT members. Their qualitative data suggested that "...poor team dynamics may distract the executive team from concentrating on operational matters and act to focus their attention inward..." (p. 168). LePine, Piccolo, Jackson, Mathieu, and Saul (2008) defined a general teamwork process factor with three dimensions. One of these dimensions is called action processes, which reflect monitoring and information processing activities such as monitoring progress toward team goals, and systems monitoring, that occur as the team works toward accomplishing its goals and objectives. The results showed that these action processes were positively associated with team performance and member satisfaction (LePine et al., 2008). The processes examined in the studies mentioned above all implicitly underscore the importance of the active role of TMT members for team performance. These empirical studies suggest that it is important for TMT performance that team members monitor whether the team is still on track with regard to goal completion and, if not, to look for feedback in order to adjust their course of actions.

4. Transformational leadership, feedback seeking behavior and performance: how are they related?

Even though we suggest that CEO transformational leadership might not always be crucial for achieving TMT performance, the precise relationship between transformational leadership and feedback seeking behavior is still unclear. Based on empirical findings, two alternative mechanisms seem possible. On the one hand, some studies point in the direction of a mediating process (see Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Flood et al., 2000; Herold, Fedor, Caldwell, & Liu, 2008), in which a transformational leader improves team processes, which, in turn, increase positive outcomes such as team performance and change effectiveness. Confirmation for this mediation effect can be found in an experimental study in which participants were presented with a vignette describing transformational leadership of an imaginary leader. Participants reported significantly higher feedback seeking intentions in the transformational leadership conditions, than participants confronted with a vignette of a non-transformational leader (Levy, Cober, & Miller, 2002). Also, VandeWalle, Ganesan, Challagalla, and Brown (2000) found that supervisors of salespeople enhanced feedback seeking through transformational leadership behavior. Likewise, a study by Carmeli, Schaubroeck, and Tishler (2011) showed that CEO empowering leadership is positively related to TMT processes and, in turn, to firm performance. In short, these results seem to suggest that transformational leadership stimulates feedback seeking behavior of team members.

However, other empirical results on the functioning of a CEO and TMT processes suggest that this mediating relationship works exactly in the opposite direction; that is, transformational leadership could in fact decrease team processes, since strong transformational leaders leave little room for feedback seeking behavior (cf. Ashford et al., 2003). An alternative theoretical model of Mumford (2006) also suggests that charismatic leaders may inhibit feedback seeking behavior, because charismatic leaders rely mainly on idea generation, but have little focus on analysis and monitoring. It is proposed that transformational leaders are preoccupied with spreading their vision, generating ideas and inspiring others, and that they might not want to slow down and waste time on seeking input from followers (Mumford, 2006). Moreover, followers of a transformational leader might be reluctant to seek feedback, because this could be interpreted as questioning the clear and charismatic vision of the CEO (see also Hambrick & D'Aveni, 1992). Accordingly, Halebian and Finkelstein (1993) argued that so-called 'dominant' CEOs restrict the flow of information in TMTs, which leads to poor performance in situations that require substantial information processing. Thus, these theoretical ideas and empirical results concerning the mediating relationship between transformational leadership and feedback seeking behavior are inconsistent and contradictory, since transformational leadership seems to be able to both promote and hinder feedback seeking behavior.

An explanation for these inconsistent findings can be found in situational leadership theories. These approaches would namely suggest that the effect of transformational leadership is dependent on context-specific variables like TMT feedback seeking behavior. According to Kerr and Jermier's (1978) substitutes for leadership theory, certain individual, task, and organizational variables can act as substitutes, neutralizers or enhancers for the effects of a leader's behavior such as an individual's need for independence, routineness of tasks, team cohesion or control over rewards. Several empirical studies have indeed shown that the effectiveness of leadership behavior is moderated by situational, individual, or team characteristics (e.g., Keller, 2006; Morgeson, 2005; Stoker, 2008).

Following this, we expect feedback seeking behavior to act as a neutralizer for CEO transformational leadership (see also Herold et al., 2008). A neutralizer eliminates the impact of a leader's behavior on the outcome variable, but it does not replace the impact of this behavior (Podsakoff, MacKenzie, Ahearne, & Bommer, 1995). Following Ashford and Tsui (1991), we argue that feedback seeking enables the members of a TMT to evaluate the appropriateness and adequacy of their actions, and, in turn, makes it possible to improve their performance on their own. When TMT members search for feedback, monitor and evaluate their own and each other's performance, the vision and guidance of a transformational leader might be less necessary or

even superfluous. This is because TMT members are high level managers who are self-directed, and collect the information they need themselves in order to perform well as a team. In contrast, we expect that low feedback seeking TMTs can and will benefit from a transformational leader, in order to monitor their progress. This reasoning leads to hypothesis 1:

H1. Feedback seeking behavior moderates the relationship between CEO transformational leadership and TMT performance, such that transformational leadership is positively related to team performance for teams with low levels of feedback seeking behavior, yet unrelated to team performance for teams with high feedback seeking behavior.

5. The context of organizational change

CEO transformational leadership is, in its essence, related to issues of transformation and change (Bass & Riggio, 2006). Burns (1978) defined transformational leadership as a reflection of the traits and behaviors that are necessary for initiating change. Vera and Crossan (2004) argue that transformational leaders are essentially change agents, because they show the future toward subordinates and inspire them to achieve this new future. Nemanich and Keller (2007) also claim that transformational leadership is particularly effective in a situation of crisis or uncertainty. Consequently, the value and importance of CEO transformational leadership might especially be at stake in situations where change is at hand.

On the other hand, one could also argue that the TMT is a group of key internal change agents (Vaccaro, Jansen, Van Den Bosch, & Volberda, 2009) that have both the position and the ability to make decisions regarding the future and necessary changes of the organization. Especially by actively seeking feedback, a TMT, therefore, might very well be capable of achieving change effectiveness itself: in uncertain situations such as an organizational change context, feedback seeking has high instrumental value (Anseel, Lievens, & Levy, 2007).

Moreover, there is an additional reason for studying change effectiveness in this paper. In our sample we had the unique opportunity to use change effectiveness as an objective indicator of TMT effectiveness. All participating organizations implemented a change project, and two relevant external experts evaluated the effectiveness of that project. Therefore, our hypothesis 2 states:

H2. Feedback seeking behavior moderates the relationship between CEO transformational leadership and change effectiveness, such that transformational leadership is positively related to change effectiveness for teams with low feedback seeking behavior, and not related to change effectiveness for teams with high feedback seeking behavior.

Interestingly, in a lively debate on the substitutes for leadership theory that occurred in *The Leadership Quarterly* (Dionne et al., 2005), one of the main suggestions was to investigate competing models, such as mediation and moderation. This is also one of the main arguments of Edwards (2010) who argues that we should use strong inference tests, in order to make more progress in theory development (see also Friedrich, Byrne, & Mumford, 2009). We follow these recommendations by also testing for a possible mediating relationship between CEO transformational leadership, feedback seeking behavior and both dependent variables, namely team performance and change effectiveness.

6. Method

6.1. Sample and procedure

Data was gathered during the end of 2006 and the beginning of 2007. In total, a sample of 70 CEOs of for-profit and not-for-profit organizations was contacted from a cross-section of organizations in The Netherlands, representing a wide variety of industry sectors. The questionnaires were to be completed by three different sources, namely: a) the CEO, b) two different members of the TMT, and c) two key persons outside of the TMT (e.g., higher line management or HR-officers), who could rate TMT performance independently. By having these three independent sources, we were able to reduce common-source bias.

Forty-five of the 70 CEOs agreed to participate (64% response rate). The organizations that chose not to participate indicated two reasons: either there was a lack of time to participate or they were not willing to participate based on the multi-source design of the study, meaning that they did not want external experts to participate. Unfortunately, some respondents did not fill out all the items in the questionnaire, forcing us to exclude 7 of the 45 cases, which led to a complete final data set of 38 TMTs on which we based our analyses.

All participating organizations had implemented some organizational changes during the last years. In order to be sure that there was a clear change project, and that respondents would all think about the same project, the researchers formulated three conditions the project was required to meet: 1) the change was planned, 2) the change had taken place in the previous three years, and 3) the outcomes of the change had to be known. We asked the CEO to define the change project, and this project was explicitly mentioned in the questionnaire.

The organizations were from several industries, of which half ($N = 19$) were for-profit organizations and half ($N = 19$) for not-for-profit organizations. More specifically, 16% worked for financial institutions, 16% for the government, 16% in health and education, 10% in service organizations, 8% in housing companies, 8% in industry, 8% in the police force, 5% in transport, 5% in NGOs, 5% working in the energy sector, and 3% in telecom. The size of the participating organizations ranged from 24 to more than 2000

employees — with a mean of 433 employees. At a disaggregated level, the sample consisted of 38 CEOs, 76 top team members, and 76 key persons. The mean size of the TMTs was 5.76, with a standard deviation of 2.57.

6.2. Measures

As mentioned above, data from three different sources were used, and each source filled out different items, which can be seen in Table 1. Table 1 shows that the transformational leadership of the CEO was rated by the TMT members. The CEO rated feedback seeking behavior of the TMT, and team performance. Two key persons outside the TMT rated change effectiveness. All items were measured on a 5-point scale, ranging from 'do not agree at all' (1) to 'agree very much' (5).

Some authors have shown that CEOs and the top managers especially resent being asked questions that seem repetitious (cf. Wanous, Reichers, & Hudy, 1997). Therefore, we used single item measures to determine team performance and change effectiveness.

The questionnaire was in Dutch. The items of transformational leadership were originally in English. We utilized back translation whereby items were translated into Dutch and, in order to check that the Dutch terms had the same meaning as the original items in English, another Dutch-speaker translated them back into English. Items were then compared with the original expressions, which resulted in just a small number of adjustments.

In order to justify aggregation of individual team members' responses to the team level, we calculated the average interrater agreement coefficient, or within-team agreement score, R_{wg} (James, Demaree, & Wolf, 1984) and the intraclass correlation coefficients, ICC(1) and ICC(2) (Bliese, 2000; James, 1982), for transformational leadership and change effectiveness, since these were the two variables with multiple respondents. ICC(1) gives an estimate of the proportion of total variance in a measure accounted for by membership in a group, whereas ICC(2) indicates the reliability of the group means (Bliese, 2000).

6.2.1. Transformational leadership

Transformational leadership was measured using a six-item scale adapted from the twenty-three-item scale for transformational leadership developed by Podsakoff et al. (1990). Only the highest-loading item for each of the six dimensions in the original study by these scholars was used (cf. De Poel, Stoker, & Van der Zee, 2011). This shortened version covered the six leadership dimensions of transformational leadership: Identifying and articulating a vision ('Inspires others with his/her plans for the future'); Providing an appropriate model ('Provides a good model for me to follow'); Fostering the acceptance of group goals ('Gets the group to work together for the same goal'); High performance expectations ('Insists on only the best performance'); Providing individualized support ('Shows respect for my personal feelings'); and intellectual stimulation ('Challenges me to think about old problems in new ways'). TMT members filled out these six items. The Cronbach's alpha of the six items at the team level was .83. Therefore, in line with Podsakoff et al. (1990), the items were combined into one mean score for transformational leadership.

The mean R_{wg} value for transformational leadership was .90 (James et al., 1984), which showed high within-team agreement. Further, one-way analyses of variance showed that perceptions of transformational leadership differed significantly between teams. The ICC(1) value of .33 indicated that a significant proportion of the total variance was accounted for by team membership. ICC(2) was .44. Together, these statistics suggested that aggregating individual perceptions of transformational leadership to reflect team-level perceived transformational leadership was justified.

6.2.2. Feedback seeking behavior

The CEOs completed three items of Schippers et al.'s (2007) measure of feedback seeking behavior. Items of this scale are, 'We work out how well we are performing in comparison to other teams', 'We ask for feedback from internal and external customers on our results', and 'We check how well we perform as a team'. Cronbach's alpha was .70.

6.2.3. TMT performance

TMT performance was measured using a single item based on the scale used by Pearce and Sims (2002), namely 'The quality of work of our team is above average'.

6.2.4. Change effectiveness

We asked two key persons to rate the effectiveness of the change project, ranging from 1 (not effective at all) to 5 (highly effective). R_{wg} = .67, which again showed satisfactory within-team agreement, and ICC(1) = .16, and ICC(2) = .35.

Table 1
Variables measured and their sources.

Variable	Sources
Transformational leadership	Two team members of the TMT
Feedback seeking behavior	One CEO
Team performance	One CEO
Change effectiveness	Two key figures outside the team

Table 2
Univariate statistics and Pearson's correlations.

Variable (n = 38)	M	SD	1	2	3	4	5
1. For-profit status	1.50	.51					
2. Team size	5.82	2.30	-.27				
3. CEO transformational leadership	3.65	.50	.06	-.26			
4. Feedback seeking behavior	3.27	.80	.14	-.30	.13		
5. Team performance	3.63	.67	.16	-.13	.25	.29	
6. Change effectiveness	3.58	.52	.03	-.15	.34*	.05	.14

* $p < .05$.

6.2.5. Control variables

Research (Ruvio, Rosenblatt, & Hertz-Lazarowitz, 2010) shows that elements of transformational leadership like vision play a different role in for-profit and not-for-profit organizations. Therefore, we controlled for the for-profit status of the organizations (0 = for-profit, 1 = not-for-profit). Moreover, we controlled for team size because there are substantive arguments that size of a TMT matters (Carpenter et al., 2004).

7. Data analysis

In order to test the moderating effect of feedback seeking behavior on the relationship between transformational leadership and the two dependent variables, we ran two separate regression analyses. In the first analysis, TMT performance was treated as the dependent variable. In step 1, the control variables, for-profit status and team size, were entered into the equation. Then, in step 2, transformational leadership and feedback seeking behavior were added to the model, followed, in step 3, by the interaction term (transformational leadership \times feedback seeking behavior). The same steps were followed in the second analysis but with change effectiveness as the dependent variable.

8. Results

Table 2 shows means, standard deviations, and bivariate correlations among the variables that were used in this study. As expected, there was a positive correlation between CEO transformational leadership and change effectiveness ($r = .34$, $p < .05$). Feedback seeking behavior did not correlate significantly with either transformational leadership or change effectiveness. The correlation between feedback seeking behavior and team performance was marginally significant ($r = .29$, $p < .08$).

The results of the regression analyses in Table 3 showed that the control variables were not significantly related to team performance ($\Delta R^2 = .03$; $\Delta F = .61$, n.s.), nor to change effectiveness ($\Delta R^2 = .02$; $\Delta F = .38$, n.s.). In step 2, the main effects of both transformational leadership and feedback seeking behavior were entered. This step was non-significant for both team performance and change effectiveness ($\Delta R^2 = .11$; $\Delta F = 2.11$, n.s.), and ($\Delta R^2 = .10$; $\Delta F = 1.89$, n.s.), respectively. Transformational leadership was marginally positively related to change effectiveness ($b = .17$, $t = 1.94$, $p = .06$) but not to team performance ($b = .15$, $t = 1.30$, n.s.). Feedback seeking behavior was not significantly related to either of the outcome variables ($b = .17$, $t = 1.51$ (n.s.) for team performance, and $b = .00$, $t = -.05$ (n.s.) for change effectiveness).

H1 predicted a significant interaction effect between transformational leadership and feedback seeking behavior on team performance. As expected, step 3, in which the interaction effect was added to the equation in order to predict team performance, was significant ($\Delta R^2 = .11$; $\Delta F = 4.83$, $p < .05$). H2 predicted the same interaction for change effectiveness. As expected, step 3, in which the interaction effect was added in order to predict change effectiveness was significant ($\Delta R^2 = .10$; $\Delta F = 4.16$, $p = .05$), as can also be seen in Table 3.

In order to interpret these two interaction effects, we followed the procedure proposed by Aiken and West (1991). The graphical representations of the significant interaction effects are depicted in Figs. 1 and 2. We find a similar pattern of results for the simple slopes, b-coefficients and significance levels regardless of the controls we add, whether it is for-profit status or team size.

Table 3

Results of regression analysis for transformational leadership and feedback seeking behavior, with team performance and change effectiveness as dependent variables, and for-profit status and team size as control variables (N = 38).

Step	Variable	Team performance			Change effectiveness		
		1	2	3	1	2	3
1	For-profit status	.18	.15	.10	-.01	-.01	-.06
	Team size	-.07	.02	.08	-.08	-.03	.03
2	Transformational leadership		.15	.21		.17	.22*
	Feedback seeking behavior		.17	.20		.00	.02
3	Transformational leadership \times feedback seeking behavior			-.29*			-.21*
	R^2	.03	.14	.26	.02	.12	.22
	ΔR^2	.03	.11	.11*	.02	.10	.10*

* $p < .05$.

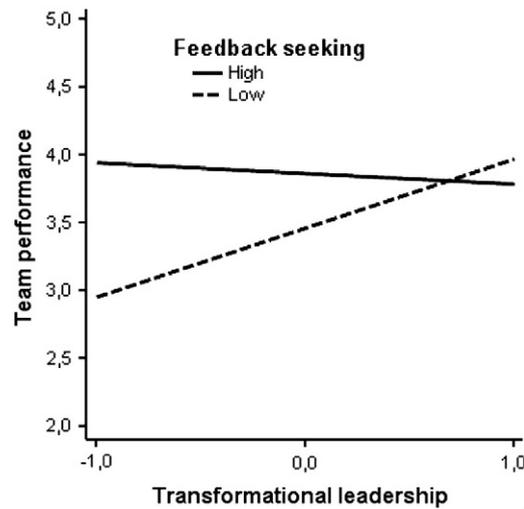


Fig. 1. Relationship between CEO transformational leadership and team performance for low and high feedback seeking behavior.

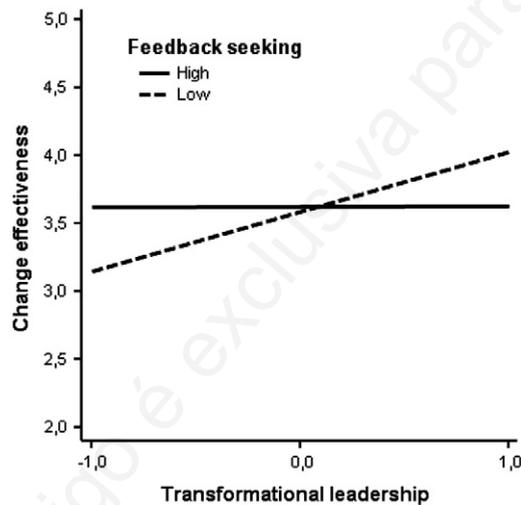


Fig. 2. Relationship between CEO transformational leadership and change effectiveness for low and high feedback seeking behavior.

As expected, transformational leadership was positively related to team performance for TMTs with low feedback seeking behavior ($b = .50$, $t = 2.59$, $p < .02$), whereas this relationship for TMTs with high feedback seeking behavior was not significant ($b = -.08$, $t = -0.51$, $p = .61$). These results confirmed H1.

As Fig. 2 shows, transformational leadership was positively related to change effectiveness for TMTs with low feedback seeking behavior ($b = .43$, $t = 2.83$, $p < .01$) but not significant ($b = .01$, $t = 0.07$, $p = .94$) for TMTs with high levels of feedback seeking behavior. These results supported H2.

9. Additional analyses: testing a mediation model

Several authors (Agle et al., 2006; Flood et al., 2000; Herold et al., 2008) hypothesized that the expected positive relationship between transformational leadership and performance would be mediated by feedback seeking behavior. Therefore, we also tested a mediation model (cf. Baron & Kenny, 1986) for both our dependent variables with transformational leadership as the independent variable and feedback seeking behavior as the mediator. Results can be found in Table 4.

The results of the regression analyses in Table 4 showed that the control variables were not significantly related to our dependent variables ($\Delta R^2 = .03$; $\Delta F = .61$ (n.s.) for team performance, and $\Delta R^2 = .02$; $\Delta F = .38$ (n.s.) for change effectiveness). In step 2, the main effect of transformational leadership was entered. This step was non-significant for both team performance and change effectiveness ($\Delta R^2 = .05$; $\Delta F = 1.86$, n.s. and $\Delta R^2 = .10$; $\Delta F = 3.89$, $p = .06$) respectively. Transformational leadership was marginally positively related to change effectiveness ($b = .17$, $t = 1.97$, $p = .06$) but not to team performance ($b = .16$, $t = 1.36$, n.s.). The

Table 4

Results of mediation analysis for transformational leadership and feedback seeking behavior, with team performance and change effectiveness as dependent variables (N = 38).

Step	Variable	Team performance			Change effectiveness		
		1	2	3	1	2	3
1	For-profit status	.18	.18	.15	-.01	-.01	-.01
	Team size	-.07	-.02	.02	-.08	-.03	-.03
2	Transformational leadership		.16	.15		.17	.17
3	Feedback seeking behavior			.17			-.00
	R ²	.03	.08	.14	.02	.12	.12
	ΔR ²	.03	.05	.06	.02	.10	.00

*p < .05.

third step with the mediator feedback seeking behavior did not contribute significantly to the prediction of team performance ($\Delta R^2 = .06$; $\Delta F = 2.29$, n.s.) nor for change effectiveness ($\Delta R^2 = .00$; $\Delta F = .00$, n.s.).

Feedback seeking behavior was not significantly related to either of the outcome variables: ($b = .17$, $t = 1.51$, n.s.) for team performance and ($b = .00$, $t = -.05$, n.s.) for change effectiveness. Most importantly, the regression coefficient b for the relation between transformational leadership and team performance did not change between before ($b = .16$, $t = 1.36$, n.s.) and after ($b = .15$, $t = 1.30$, $p = .05$) entering feedback seeking behavior. Similar results were obtained for change effectiveness, with ($b = .17$, $t = 1.97$, $p = .06$) and ($b = .17$, $t = 1.94$, $p = .06$), respectively. We also ran the mediation model with both team performance and change effectiveness as mediators, and feedback seeking behavior as the dependent variable, but this also did not lead to significant results. In short, we found no evidence for a mediation effect.

10. Discussion

The present study is among the first quantitative studies (Mumford, 2006) that examine the role of CEO transformational leadership and feedback seeking behavior of top management teams. First, our study supports that 'leadership matters', as was stated before by Dionne et al. (2002) and as was also recently expanded to the CEO level by Ling et al. (2008). Moreover, based on three different sources from a unique sample among a variety of 38 for-profit and not-for-profit organizations, we showed that TMT feedback seeking behavior can function as a neutralizer for CEO transformational leadership. That is, there is a strong positive relationship between CEO transformational leadership and both team performance and change effectiveness when a TMT shows little feedback seeking behavior. However, this relationship does not exist for teams that score high on feedback seeking behavior. This indicates that transformational leadership is not necessary, per se, for achieving team performance and change effectiveness, and that a TMT itself can actively contribute to success.

In a more general sense, these findings imply that there are specific situations or contexts in which CEO transformational leadership does not add additional variance in the prediction of performance. This indicates that TMTs can also function well, irrespective of a transformational leader. These results clearly support propositions derived from the substitutes for leadership theory (Kerr & Jermier, 1978). Although empirical confirmation for this theory is limited (Dionne et al., 2002; Podsakoff, MacKenzie, & Bommer, 1996), our outcomes suggest that managers in a TMT can perform well by actively seeking feedback. Our results also contribute to the advancements in the field of strategic leadership. We agree with the argument of Dionne et al. (2005) that "substitutes for leadership theory is not passé (...) and we are at the tip of the iceberg when it comes to understanding substitutes for leadership" (Dionne et al., 2005, p. 185). A TMT consists not only of a CEO, but also of team members that are managers themselves. By actively seeking feedback, a transformational CEO might be redundant, because these managers seem to have found alternative ways in order to perform and be effective.

Encouraged by the call of Edwards (2010), and Friedrich et al. (2009) to test alternative models, we also looked at the possibility of mediation in our data (see also Dionne et al., 2005). We clearly found no support for a mediating model where CEO transformational leadership would positively influence feedback seeking behavior of TMTs, which, in turn, would lead to team performance or change effectiveness.

Our study has some limitations. One concern is the sample size of our study, since it includes only 38 teams. However, it can be regarded as quite large considering the difficulties associated with obtaining data from upper echelons of organizations. Moreover, since we found two strong interaction-effects between transformational leadership and feedback seeking behavior, it is arguable that our results are very robust. Since our sample is rather small, and we also were limited in the length of our questionnaire, future research could try to collect data from more teams, and also to look into different control variables, such as the possible effect of industry type. Moreover, it would have been interesting to control for the fact that the participating organizations had performance pressures during their change project, but unfortunately we were not able to collect those data in this sample.

Another limitation of this study is its cross-sectional nature, which does not allow causal inferences. For example, one could argue that TMT members' perception of their CEO's degree of transformational leadership and the CEO's perception of the extent to which the TMT actively seeks feedback, may be attributions that follow from an effective team or an effective change process, the so called outcome-process linkage (Peterson & Behfar, 2003). Although testing this mediating relationship did not render positive outcomes, it would be interesting if future research would focus on a longitudinal study of CEO transformational leadership, feedback seeking behavior and effectiveness.

Despite the fact that one of the dependent variables (change effectiveness) came from a different source than the two independent variables (transformational leadership and feedback seeking behavior), it is possible that common method bias could have inflated the relationships that we found. In correlational research, common method bias is notorious for spuriously inflating the relationships. However, it is unlikely that this type of bias influenced the strong and significant interaction we found in the regression analyses. This is supported by Evans (1985) who showed that common method bias cannot create artifactual interactions and that true interactions may even be attenuated.

We used the shortened version of the Podsakoff et al.'s (1990) scale because a study on the different subdimensions of transformational leadership was not relevant for answering our research question. This is in line with much of the research on transformational leadership, in which a single higher-order indicator of transformational leadership is almost always being used (Judge & Piccolo, 2004). Nevertheless, disentangling the different dimensions of transformational leadership could be an interesting direction for future research.

A final constraint of our study concerns the single-item measures of our two dependent variables. Indeed some critics have argued against the use of single-item measures (Pedhazur & Schmelkin, 1991). However, there is a large volume of research suggesting that single-item measures can be reliable (e.g., Wanous & Hudy, 2001; Wanous et al., 1997). For example, Bergkvist and Rossiter (2007) found no difference in the predictive validity of multiple-item and single-item measures of attitudes. Furthermore, the nature of the variable is crucial. We followed Sackett and Larson (1990) who stated that a single-item measure is adequate if the construct being measured is sufficiently narrow and unambiguous to the respondents. We argue that our two dependent variables meet these conditions because both are clear and explicit constructs.

In line with Mumford (2006) at the start of this paper, our results can be seen as an encouragement to continue searching for potential moderators for CEO transformational leadership, focusing on other TMT processes. We realize that feedback seeking behavior is only one of the relevant team processes. Future, preferably longitudinal, studies could also examine how other team processes within TMTs affect on team effectiveness or performance.

Second, we argue that it is worthwhile to study other CEO leadership styles. The role of CEO empowering leadership especially is a promising area. The work of Carmeli et al. (2011) showed a mediating effect of empowering leadership on team processes (see also Srivastava, Bartol, & Locke, 2006). This might indicate a significant difference between transformational and empowering or participative leadership, as was confirmed in a study of De Poel et al. (2011). Specifically, they (De Poel et al., 2011) found that transformational leadership did not affect a climate for change, whereas participative leadership did. Participative leaders involved employees in the decision-making process and thereby influenced a climate for change, which in turn was related to positive outcomes. One could infer from this finding that CEO transformational leadership and CEO empowering leadership possibly work differently for TMTs. More research is needed, at multiple levels of analysis, to investigate the possible mediated and moderated models for CEO empowering and transformational leadership (Dionne et al., 2005).

Third, following Morgeson (2005), it is important to investigate what makes teams actively seek feedback. Although several studies have given insight into the antecedents of feedback seeking, and the patterns of feedback seeking (Ashford et al., 2003), we still need more clarity on the antecedents of this behavior with respect to TMTs.

For organizational practice, both a pessimistic and an optimistic perspective can be taken. With respect to the first, according to Podsakoff et al. (1995) our findings provide unclear implications for CEOs and organizations. For the neutralizing effect of feedback seeking behavior only, it implies that in some situations, transformational leadership is not always directly related to the outcome variables. This finding can merely encourage a leader to engage in transformational leadership at all times, because it will not reduce desirable outcomes, and depending on the level of TMT feedback seeking behavior, it often helps.

But taking the more optimistic standpoint, it can be argued that the results of our study put the importance of transformational CEOs into perspective. Our findings suggest that TMTs themselves can achieve team performance and change effectiveness by monitoring the performance and by asking feedback from others on their performance and results. Although CEO transformational leadership never hurts, the fate of an organization does not always entirely depend on it either (Yukl, 2008). This finding has strong and promising implications with respect to the selection of CEOs. Instead of always looking for a strong transformational CEO as a guaranteed 'silver bullet' for organizational success (Flood et al., 2000; Ling et al., 2008), the qualities of the TMT could very well lead to easier CEO selection processes. After all, in case of the appointment of a new CEO, the feedback seeking capabilities or – more generally said – the readiness for self-direction of a TMT, could indicate that there are more suitable candidates for this CEO position than just a few rare transformational 'superstars' (Khurana, 2002).

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