Leadership and Performance during Continuous Change 1

Running head: LEADERSHIP AND PERFORMANCE DURING CONTINUOUS CHANGE

Transformational Leadership, Relationship Quality, and Employee Performance during Continuous Incremental Organizational Change

Min Z. Carter
Troy University

Achilles A. Armenakis
Hubert S. Feild
Kevin W. Mossholder
Auburn University

Authors’ Notes

Min Z. Carter, Department of Business Programs, Troy University, Troy, AL 36082.
Achilles A. Armenakis, Hubert S. Feild, and Kevin W. Mossholder, Department of Management, Auburn University, Auburn, Alabama 36849.

An earlier version of this paper was presented at the 2010 annual meeting of the Academy of Management, Montreal, Canada. We thank Jeremy Bernerth, Alannah Rafferty, and David Waldman for their comments on earlier drafts of this paper.

Correspondence concerning this paper should be addressed to Min Z. Carter, Department of Business Programs, Troy University, Troy, AL 36082. E-mail: mzcartertroy.edu

In press, Journal of Organizational Behavior
Abstract

Although transformational leadership has been investigated in connection with change at higher levels of organizations, less is known about its “in-the-trenches” impact. We examined relations among transformational leadership, explicit change reactions (i.e., relationship quality), change frequency, and change consequences (i.e., task performance and organization citizenship behavior—OCB) during continuous incremental organizational change at lower hierarchical levels. In a sample of 251 employees and their 78 managers, analyses revealed the quality of relationships between leaders and employees mediated the influence of transformational leadership on employee task performance and OCB. We also found change frequency moderated the positive association of relationship quality with task performance and OCB, such that associations were stronger when change frequency was high.

Keywords: organizational change, transformational leadership, relationship quality, change frequency, task performance, organizational citizenship behavior
Organizational change is a necessity for organizations to survive and prosper. In fact, most organizations compete by changing continuously (Brown & Eisenhardt, 1997; Burke, 2002). A continuous incremental change context comprises frequent, purposeful adjustments that are small but ongoing and cumulative in effect (Brown & Eisenhardt, 1997; Weick & Quinn, 1999). Scholars have argued that continuous change requires employees to modify not only work routines but also social practices (e.g., relations with their managers and peers). To cope with the daily challenge of real-time adaptation, employees selectively retain effective elements of their performance routines and integrate them with new, more efficient ones (Feldman & Pentland, 2003). As a result, these employees often experience difficulties and tensions in maintaining prior levels of performance while adapting to their new job requirements (Kanfer & Ackerman, 1989).

To mitigate the tensions and facilitate effective performance, managers must exhibit appropriate leadership behaviors (Bass & Riggio, 2006; Burke, 2002). Among various leadership perspectives, transformational leadership is often linked with managerial effectiveness during organizational change (Bass & Riggio, 2006; Pawar & Eastman, 1997). Transformational leaders recognize the need for change, create and share compelling visions with employees, guide them through adaptations, and inspire them to accomplish the challenging goal of institutionalizing change (Bass, 1999). Transformational leadership should be effective in both Western and non-Western societies (Bass, 1997) and correlates with individual- and team-level job performance (Judge & Piccolo, 2004). Surprisingly, however, few studies have considered potential mediating factors (e.g., quality of relationships between managers and employees) that explain how transformational leadership actually influences job performance in change contexts (Bass, Avolio, Jung, & Berson, 2003; Nemanich & Keller, 2007). Although some studies have considered related issues at the strategic level (cf. Groves, 2005; Waldman, Ramirez, House, &
Puranam, 2001), the findings are of limited relevance at lower hierarchical levels (e.g., work teams) where employees must meet the day-to-day challenges of continuous change while pursuing their on-going task objectives (cf. Seo, Taylor, Hill, Zhang, Tesluk, & Lorinkova, 2012).

One goal in the present research is to investigate how team-focused transformational leadership influences employee performance at lower organization levels where change is an integral part of on-going operations. We used Oreg, Vakola, and Armenakis’ (2011) change model as an overarching framework for our study. Based on empirical studies of employees’ reactions to organizational change over a 60-year period, Oreg et al.’s (2011) model suggests change antecedents (e.g., support, communication) are associated with explicit employee reactions that lead to change consequences (e.g., performance outcomes). We propose that transformational leadership acts as a change antecedent, which facilitates the development of quality relationships between leaders and their employees. Positing relationship quality as an explicit employee reaction to such leadership, we further suggest it should stimulate and support effective employee change behaviors in the form of in-role task performance and extra-role organizational citizenship behavior (OCB). In essence, we propose that through high quality relationships, managers manifest the change processes (e.g., transformational leadership behaviors—creating change vision, involving employees in problem solving to accomplish change goals) shown to promote positive employee change consequences.

The quality of relationships between managers and employees represents social exchanges in which the two parties interact based on shared obligations, respect, and trust (Blau, 1964). In higher quality relationships, interpersonal communication is more frequent, and support and trust between managers and employees is greater (Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; Graen & Uhl-Bien, 1995). These features allow both parties to accommodate
the demands of on-going change. Generally, high relationship quality facilitates the exchange of resources between managers and employees that are necessary for task accomplishment (Liao, Liu, & Loi, 2010). Specifically under conditions of on-going change, employees need access to adaptive resources like free-flowing information and personal support from managers, whereas managers need employees’ support in fine tuning changes and attaining high levels of work effort (Caldwell, Herold, & Fedor, 2004; Weick & Quinn, 1999). Additional characteristics of high relationship quality conducive to change are greater employee flexibility and acceptance of risks involved with change (Tierney, 1999) and higher change acceptance (Farr-Wharton & Brunetto, 2007).

The underlying goal of organizational change is to improve organizational performance. At lower organizational levels, progress toward this goal is gauged in terms of employees’ job performance behaviors. Oreg et al. (2011) noted job performance and OCB have both been studied as change consequences (e.g., Morse & Reimer, 1956, Shapiro & Kirkman, 1999). Task performance is a logical change consequence because it indicates how well employees have mastered new work routines and processes. Due to its discretionary character, OCB can serve as a change consequence reflecting employee buy-in, the degree that employees invest in a change effort of their own accord (Shapiro & Kirkman, 1999). Employees with higher OCB should be more willing to face the inevitable inconveniences and disruptions accompanying change (Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

A second goal of our study is to examine whether the change context affects the influence of relationship quality on change outcomes. In continuous incremental change contexts, the adaptation process is more iterative in nature. Iterative change consists of a sequence of small-scale changes that allow the work unit (i.e., work team) to move forward while maintaining coherency in purpose (Weick & Quinn, 1999). It compels employees to constantly adjust to
maintain process effectiveness as well as positive social interactions among team members. Reflecting this situational feature, change frequency involves how often change events are implemented in the work team, each of which requires employees to adapt their daily work routines (cf. Rafferty & Griffin, 2006). Where the velocity of change is high, employees’ confidence levels are likely to be greater if close relations with managers exist. Because this circumstance could positively affect their work behavior (Rafferty & Griffin, 2006; Tierney, 1999), we examine change frequency as a potential moderating influence.

Our study contributes to the transformational leadership and change literatures in four ways. First, we provide a much needed empirical examination of processes that might explain how transformational leadership influences change outcomes (cf. Nemanich & Keller, 2007). We scrutinize a relational form of employee reactions to change-oriented leadership behavior during times of change. Such an examination provides greater understanding of relationships among leadership, employee reactions, and change consequences. Second, our study focuses on transformational leadership and change at lower hierarchical levels. Rather than being above the transformational fray, managers dealing with continuous incremental change are embedded in it. Studies of transformational leadership during change have generally featured upper-level managers directing change through formal restructuring and cascading downward influence. Eliciting participation from lower-level employees permits testing whether transformational leadership facilitates change by not only broadcasting the change message, but also actively enabling it through supportive relationships. Third, in exploring the contextual influence of change frequency, we provide a more nuanced consideration of the impact of relationship quality on performance (cf. Avolio, Walumbwa, & Weber, 2009). That is, our research provides insight into the role of relationship quality in stimulating performance within contexts of varying change frequency. A final contribution is we use independently assessed performance criteria (i.e.,
evaluated by team leaders) to gauge leadership effectiveness during organizational change. Nearly all of the change studies included in Oreg et al.’s (2011) review used self-report, same-source performance assessments (i.e., assessed by employees themselves).

**Transformational Leadership and Relationship Quality during Continuous Incremental Change**

Transformational leaders transmit to employees a strong vision of the growth opportunities in their team, encourage them to think critically about change initiatives, enhance their confidence in dealing with adaptation, and emphasize the importance of performance while transcending self-interests for the team’s sake (Bass, 1999). Because of such leadership influence, employees are more likely to react favorably to change both attitudinally and behaviorally. For instance, Herold, Fedor, Caldwell, and Liu (2008) reported positive relationships between transformational leadership and employee change commitment. Similarly, Detert and Burris (2007) provided evidence that change-oriented (i.e., transformational) leadership predicted job performance at the unit level.

At the strategic level, change attempts are broad, and communications relevant for the change tend to be formal, scripted, and directed at larger audiences. Furthermore, impersonal media (e.g., emails) are used to elaborate the changes. With continuous incremental change at lower hierarchical levels, smaller changes are implemented, each of which can involve informal communication and active employee participation (Rafferty & Restubog, 2010). Managers implementing change are more likely to model the intended changes and engage in unscheduled, face-to-face employee conversations. In return, employee-initiated questions and comments can stimulate a sizeable proportion of change-related communication. Participation can involve several employees simultaneously, and change-related issues might be resolved by bottom-up
inputs about work processes. Through such interpersonal exchanges, employees develop positive reactions and become motivated to make change a reality (Levay, 2010).

As managers strive to operationalize change, employees react to change in both intended and unintended ways. For example, managers might have varying ideas on how to accomplish change that could be equally instrumental for invoking supportive change reactions. If employees misinterpret managers’ ideas for implementing change (Sonenshein, 2010), they might experience uncertainty about particular behaviors needed to achieve desired change objectives. These experiences can emotionally charge change contexts (Fugate, Kinicki, & Prussia, 2008) and reduce employees’ confidence in effectively adjusting to change. Such contexts, coupled with repeated adjustments in employees’ work routines, divert energy from their daily performance. Tensions might mount in employees as they attempt to learn new work routines while maintaining prior performance levels (Kanfer & Ackerman, 1989). Under these conditions, transformational leaders cannot champion change impersonally, but must convince employees that they can depend on them for guidance and support. Thus, frequent two-way communication and interactions between managers and employees are important given the iterative nature of the change program. If effective, both managers and employees should better understand how each operates and anticipate what is needed. Howell and Hall-Merenda’s (1999) findings that transformational leaders positively influenced the performance of employees working in closer proximity to them underscore the importance of frequent interaction.

We argue that as transformational leaders devote more time to coaching and guidance, relational ties with employees should grow (cf. Liu & Batt, 2010). Such ties include mutual obligation, respect, trust, and interpersonal support (Feldman, 2004; Sun, Aryee, & Law, 2007; Tierney, 1999), all of which are social wares and indicative of quality relationships. Social exchange theory (Blau, 1964) suggests employees will engage in behaviors that reciprocate
tangible (i.e., rewards, resources) and intangible (i.e., trust, respect) benefits provided by managers (Graen & Uhl-Bien, 1995; Wilson, Sin, & Conlon, 2010). As such, employees who are involved in high quality relationships with their managers should perform at higher levels and go the extra mile to help their managers and peers (Cropanzano & Mitchell, 2005). Much prior research supports the idea that high quality relationships foster task performance (Gerstner & Day, 1997; Howell & Hall-Merenda, 1999) and OCB (Ilies, Nahrgang, & Morgeson, 2007).

We propose that under conditions of continuous incremental change, transformational leadership acts as a change antecedent that facilitates the formation of higher quality relationships between managers and their employees. Because higher relationship quality involves dynamics that promote favorable change outcomes, we expect that it will influence employees’ performance behaviors. Therefore, we posit:

Hypotheses 1(a-b): Relationship quality will mediate the association of transformational leadership with employee (a) task performance and (b) organizational citizenship behavior.

**Relationship Quality, Change Frequency, and Job Performance**

There is general agreement in the literature that contextual factors can determine the magnitude of influence leader behaviors will have on employee work outcomes (Pawar & Eastman, 1997; Yukl, 2010). Logically then, characteristics of the context in which change is attempted could alter leader effectiveness. Organizational change scholars have also noted that the contextual elements of change can influence employee behaviors (cf. Armenakis & Bedeian, 1999). In this study, we focus on change frequency, because it reflects the iterative nature of continuous incremental change.

Ideally, when a change initiative is implemented, employees modify their old work routines to retain more efficient and socially beneficial approaches in the workflow. However, continuous change can also disrupt attempted modifications, resulting in increased employee
apprehension about work procedures and social norms (Ashford, 1988). Rafferty and Griffin (2006) provided evidence that employees experienced higher uncertainty as the number of internal changes (e.g., ranks of top management, consolidation of human resource functions) increased. Higher change frequency can also make relationships difficult to maintain, raising doubts about the interpersonal support employees might have previously experienced (Shaw, Ashcroft, & Petchey, 2006). Such doubts are likely greater in work teams consisting of members with interdependent work relations. As members’ work routines typically involve social interactions, high change frequency could disrupt their previously shared work responsibilities, as well as negatively affect job performance.

When change is infrequent in a work unit, its operational system remains relatively stable. In such environments, employees’ work routines are not interrupted frequently, and adaptation demands are less imposing. As such, members are more confident in performing their tasks, and their need for managers’ guidance and support tend to be less salient. When change is frequent, however, work routines that were a source of comfort to employees no longer exist (Espedal, 2006). Such a change context places greater demands on members in the form of new constraints, conflicts, and effort expenditures. The result can lead to disparities between employees’ performance and adaptation capabilities, heightening the need for clear guidance and support to cope with continuing change.

When work routines and processes are in flux, it is constructive for managers to engage in quality relational behaviors like increasing personal interactions with employees, providing resources and information support for work adjustments, and delivering formal and informal rewards for successful adaptations (Weick & Quinn, 1999). Such circumstances also magnify employee tendencies to be more receptive to their managers’ influence (Yukl, 2010) and reciprocate by devoting extra effort to the changes while maintaining high performance. Kim,
Hornung, and Rousseau (2011) suggested that making trust and social support integral to employees’ relations with their organization can facilitate change sustainability. Given that relationship quality helps assuage potentially disruptive elements accompanying continuous incremental change, it should be more critical to employee performance behaviors when change occurs at a higher rate. Therefore, we hypothesize:

_Hypotheses 2(a-b):_ Change frequency will moderate the positive association of relationship quality with (a) task performance and (b) organizational citizenship behavior, such that, the positive association will be stronger when change frequency is high.

**Method**

**Organizational Change Context**

We collected data from two service organizations in China, labeled here as Company A and Company B. Both organizations employ work teams in their respective business operations. A work team consists of a group of members with interdependent work interactions and mutually shared responsibility to achieve common goals, such as delivering quality services to its customers (Mathieu, Maynard, Rapp, & Gilson, 2008). Customer service is inherently interactive, and generally requires close regulation by team leaders to facilitate proper proactive and reactive employee behaviors. The production and delivery of services differs from traditional manufacturing concerns in that a varying mix of customers requires employees to be interactive and flexible (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005).

When the economic recession started in mid-2008, both companies experienced a decline in revenue and profitability. Top management teams in both companies recognized the value of their human capital in weathering the unfavorable business climate. In December 2008, both companies made similar strategic decisions to forestall significant layoffs in 2009 and initiate incremental organizational changes to maintain (and improve) customer relations and quality
services. Both companies implemented training designed to create a customer-oriented culture while improving the quality of service. Following training, team leaders took responsibility for implementing changes in team processes. Meetings were held with team members to solicit input on modifying work procedures and information flow. Team leaders also met with other leaders to discuss various change initiatives in their respective teams. Based on ideas and information emerging from these meetings, team leaders ultimately decided how to initiate modifications to achieve work goals.

During our data collection period, teams in both companies continuously implemented change initiatives to modify their work procedures as needed. Company A announced a 24/7 customer service call center and promised customers a 24-hour turnaround on service calls. The change initiative involved delegating authority and assigning responsibility to members to enable each team to better coordinate call center service contacts. As an example, a new work form (Form II) was developed to record timelines on service call progress, and team leaders designated members to develop weekly statistical reports on service calls. Incremental modifications were made as teams implemented their change initiatives, with some teams combining Form II and a prior service form (Form I) and others altering which items appeared in weekly statistical reports. Several teams also reassigned members’ responsibilities as weekly reports were digested.

Company B announced a commitment to customer satisfaction and planned to incorporate customer satisfaction results in its incentive pay structure. A customer survey Website was launched, and paper survey instruments were developed for those clients who did not have Internet access. A newly created department handled paper and Web-based customer satisfaction surveys along with other service quality control functions. Due to the sensitive nature of pay structure changes and lack of historical data on customer satisfaction, human resources
personnel worked with each team to establish a customer satisfaction database and incentive pay plan that best suited the team. As the teams incorporated these initiatives into their workflow, they redesigned specific work forms to record progress on various work activities. For example, team members detailed the times and services performed at each stage of the service in a revised work form (i.e., times of first customer contact, follow-up communications, and service delivery).

**Participants and Procedures**

We collected data from full-time employees working in teams in two companies in early 2009. We invited all teams to participate in the survey and distributed two sets of confidential questionnaires to the participants: one for team members (i.e., employee survey) and the other for team leaders (i.e., manager survey). When completed, participants returned the surveys in postage-paid envelopes. A coding scheme matched employee-manager responses for the two questionnaires. We instructed team members to consider the change context (within which their work was affected) and respond to surveys that assessed their leader’s transformational leadership and the relationship quality between themselves and the leader during the changes. Team members also self-reported their demographic information. We told team leaders to consider the change initiatives happening in their teams and answer items that assessed their perceptions of change frequency. They also rated their employees’ task performance and OCBs during the organizational changes.

For Company A, average team size was 4.6, ranging from 3 to 6 team members per team leader. We obtained usable data from 143 team members (a 60% response rate), and 43 team leaders (an 83% response rate). On average, 3.33 team members ($SD = 0.52$) completed the survey per team. Given that the average team size was 4.6, we estimated the within-team response rate to be 72%. For team members, average age was 26.4 (ranging from 20 to 46);
average organizational tenure was 2.2 years (ranging from .10 to 12); 81% were male; 34% held an associate’s degree, and 66% had a bachelor’s degree. For team leaders, average age was 31.3 (ranging from 24 to 41); average organizational tenure was 5.4 years (ranging from 2 to 12); 77% were male; 19% had an associate’s degree, 77% had a bachelor’s degree, and 5% had a master’s degree.

For Company B, the average team size was 3.9, ranging from 3 to 5 team members per team leader. We received usable data from 108 team members (a 64% response rate), and 35 team leaders (a 78% response rate). On average, 3.09 team members (SD = .28) completed the survey per team. Given that the average team size was 3.9, we estimated the within-team response rate to be 79%. For team members, average age was 26.1 (ranging from 22 to 41); average organizational tenure was 3.4 years (ranging from .50 to 16); 66% were male; 30% had an associate’s degree, 69% had a bachelor’s degree, and 1% had a master’s degree. For team leaders, average age was 34.5 (ranging from 26 to 43); average organizational tenure was 10.9 years (ranging from 3 to 20); 51% were male; 14% possessed an associate’s degree, 69% had a bachelor’s degree, and 17% held a master’s degree.

To check within-organizational representativeness of the two samples, we compared team leader and member respondents’ demographic data with demographic data of non-respondents in the respective companies. There were no significant differences between the respondents and non-respondents in either company for age, gender, education, and organizational tenure. Our final sample consisted of 251 employees nested in 78 teams.

**Measures**

Respondents used a seven-cell response format ranging from 1 (strongly disagree) to 7 (strongly agree) for all questions, unless otherwise specified. All scales, with the exception of the change frequency measure, had been used in other Chinese companies and shown acceptable
Leadership and Performance during Continuous Change

reliability and validity (cf. Chen & Aryee, 2007; Kirkman, Chen, Farh, Chen, & Lowe, 2009; Liao & Chuang, 2007; Wang, Law, Hackett, Wang, & Chen, 2005). We presented items in both English and Chinese. When a Chinese version of scale items was unavailable, we used back-translation methods (Brislin, 1980) to translate the items from English to Chinese. To measure the two team-level variables (i.e., transformational leadership and change frequency), we used a referent-shift consensus composition approach to modify the original scale items (Chan, 1998).

**Transformational leadership.** Transformational leadership was assessed using a modified Chinese version of the Multi-Factor Leadership Questionnaire (MLQ) Form 5X (Avolio & Bass, 2004). Rigorously validated, the MLQ-5X consists of 20 items with a five-cell response format ranging from 0 (not at all) to 4 (frequently, if not always) (see Bass, Cascio, & O’Connor, 1974), and is a widely used transformational leadership measure (Tejeda, Scandura, & Pillai, 2001). Sample items are “Our manager emphasizes the importance of having a collective sense of mission” and “Our manager talks optimistically about the future of our work team.” The dimensions and coefficient alphas for the measure were idealized attribution (.75), idealized behavior (.74), inspirational motivation (.78), intellectual stimulation (.76), and individualized consideration (.79).

We conducted a confirmatory factor analysis (CFA) to test whether the five transformational leadership dimensions configured in a higher-order factor model fit our data (cf. Wang et al., 2005). In this test, we modeled the 20 items to load on the respective five transformational leadership dimensions, which served as latent indicators of one higher-order factor. Resultant fit indices fell within an acceptable range ($\chi^2 = 223.82, df = 161, CFI = .97, RMSEA = .04, SRMR = .04$), suggesting that the data were consistent with the higher-order model. As such, we treated transformational leadership as a global construct ($\alpha = .94$). Also, because transformational leadership data were obtained from team members, we assessed the
appropriateness of aggregating individual scores to the team level using intraclass (i.e., ICC1 and ICC2) and within-group agreement indices (i.e., $r_{wg(j)}$). Our results indicated that there was sufficient statistical justification for aggregation (ICC1 = .43; ICC2 = .71; mean $r_{wg(j)} = .98$).

**Relationship quality.** In leadership research, the quality of social exchange relationships between leaders and employees is often framed in terms of leader-member exchange (LMX; Graen & Uhl-Bien, 1995). We used LMX to operationalize our relationship quality construct, as has been done in several other studies (cf. Dulac et al. 2008; Nahrgang, Morgeson, & Ilies, 2009; Tierney, 1999). The LMX-multidimensional scale (LMX-MDM; Liden & Maslyn, 1998) was used to gauge relationship quality. LMX-MDM contains 12 items, examples of which are “My manager would defend me to others in the organization if I made an honest mistake” and “I do not mind working my hardest for my manager.” The LMX-MDM dimensions and coefficient alphas were affect (.73), loyalty (.70), contribution (.75), and professional respect (.80). We conducted a CFA to test whether the four LMX-MDM dimensions plus a higher-order factor model fit our data. Again, resultant fit indices fell within an acceptable range ($\chi^2 = 99.49$, $df = 46$, CFI = .96, RMSEA = .07, SRMR = .04), suggesting that the data were consistent with the higher-order model. As such, LMX was treated as a global construct ($\alpha = .91$).

**Change frequency.** Researchers have used managers to describe the changes implemented during organizational change initiatives (cf. Lau & Woodman, 1995). When changes are frequent, employees are less likely to perceive change events as discrete (Rafferty & Griffin, 2006). The mix of rapidity and unpredictability comprising continuous change can cause employee perceptions of separate events to blend. We felt team leaders were in a better position to assess work unit change frequency for several reasons. First, team leaders drove the change initiatives, interacting with other team leaders in sharing and discussing various changes occurring in work teams. Second, as changes were undertaken, they obtained employee feedback
regarding the specific changes and information regarding service quality and customer relations. This feedback influenced subsequent change modifications by team leaders. Finally, using team leaders to assess change frequency avoided the problem of same-source measurement for change frequency and relationship quality. Therefore, we assessed change frequency ($\alpha = .88$) with a modified three-item scale developed by Rafferty and Griffin (2006). A sample item is “In my work team, change frequently occurs.”

**Task performance.** We used Farh and Cheng’s (1999) four-item, in-role task performance scale, to measure task performance ($\alpha = .85$). We conducted a CFA on the task performance measure, finding the results acceptable ($\chi^2 = 6.42, df = 2, CFI = .99, RMSEA = .09, SRMR = .02$). A sample item is “This employee can always fulfill the jobs assigned by the manager in time.”

**Organizational citizenship behavior.** OCB was measured using a 24-item scale developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990). The scale contains items such as “This employee helps others who have heavy workloads” and “This employee keeps abreast of changes in the work team.” The OCB dimensions and coefficient alphas were altruism (.78), conscientiousness (.78), sportsmanship (.75), courtesy (.79), and civic virtue (.78). We conducted a CFA to test whether the five dimensions plus a higher-order factor model fit our data. The fit indices fell within an acceptable range ($\chi^2 = 326.59, df = 241, CFI = .96, RMSEA = .04, SRMR = .05$), suggesting that the data were consistent with the higher-order model. We therefore treated OCB as a global construct ($\alpha = .93$).

Additionally, because our task performance and OCB measures were highly correlated ($r = .77$), we conducted a discriminant validity test for these two variables. We compared a two-factor model in which covariance between the two variables was freely estimated with a one-factor model in which the covariance between the two variables was fixed to one. The test
yielded a significant chi-square difference, indicating that task performance and OCB were statistically distinct (Δχ² = 34.33, Δdf = 1, p < .001).

**Control variables.** Previous research has shown the length of time leaders have managed employees is associated with employees’ leadership perceptions, and that employees’ organization tenure and team size might be related to their performance (cf. Kirkman et al., 2009; Wang et al., 2005). We therefore controlled for employee tenure in the work team and the organization. Team members provided this information in years. Team leaders reported team size, the number of members supervised. Because we collected data from two organizations, organization membership was also controlled (cf. Henderson, Wayne, Shore, Bommer, & Tetrick, 2008). Organization membership was coded 0 = Company A, 1 = Company B.

**Data Analyses**

Due to the multilevel nature of our model and data, we tested our study hypotheses using hierarchical linear modeling (HLM 6.0; Raudenbush & Bryk, 2002). Before the analyses, we grand-mean centered team-level continuous independent variables and group-mean centered the individual-level continuous independent variables (Hofmann & Gavin, 1998).

To test multilevel mediation, we used Zhang, Zyphur, and Preacher’s (2009) procedure for a 2-1-1 model (i.e., centered within context and subtracted means being reintroduced at Level 2—CWC(M)). A 2-1-1 mediated model is supported if the between-group mediated indirect effect (i.e., average CWC(M) Sobel statistic) is significant (Sobel, 1982; Zhang et al., 2009). To test the moderation hypothesis, we used slopes-as-outcomes models (Gavin & Hofmann, 2002). To avoid confounding cross-level and between-group interaction effects, the model also included the group-level interaction between relationship quality and change frequency (Hofmann & Gavin, 1998). We performed analyses for each outcome variable by entering the controls, main
effect variables, and between-group interaction term in the appropriate equations (Level 1 or Level 2).

**Results**

Table 1 presents the means, standard deviations, coefficient alphas, and intercorrelations among the study variables.

**Tests of Mediation**

Hypotheses 1a and 1b predicted that relationship quality will mediate the association between transformational leadership with task performance and OCB, respectively. As shown in Table 2, tests of Models 1, 2 and 3 revealed associations between transformational leadership and task performance ($\gamma = .85, p < .001$), between transformational leadership and OCB ($\gamma = .53, p < .001$), and between transformational leadership and relationship quality ($\gamma = .77, p < .001$). Further, in testing Model 4, the association between relationship quality and task performance was significant ($\gamma = .60, p < .001$), whereas that between transformational leadership and task performance was significantly reduced ($\gamma = .43, p < .01$) as indicated by the average CWC(M) Sobel test (mediation effect $= .42$, $z = 3.62, p < .001$). This supports a partial mediation model for Hypothesis 1a. Displayed in Table 2, our tests of Model 5 show a significant association between relationship quality and OCB ($\gamma = .49, p < .001$), but not between transformational leadership and OCB ($\gamma = .10, ns$). The average CWC(M) Sobel test confirmed the mediation test. The indirect effect of transformational leadership on OCB (via relationship quality) was significant (mediation effect $= .43$, $z = 3.88, p < .001$). Therefore, Hypothesis 1b received support.

Although conceptualized at different levels of analysis, transformational leadership and relationship quality were both rated by team members. As a check on common method variance concerns (CMV; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), we also had team leaders rate
their own transformational leadership behavior. We tested our hypotheses using leaders’ ratings of their own behavior. Model testing results revealed full mediation models for both Hypotheses 1a and 1b. We found similar results whether the mediation models were examined using same-source (i.e., team member ratings) or different-source (i.e., leader self-ratings) transformational leadership data, suggesting that CMV was not likely a study concern.

Tests of Moderation

Hypotheses 2a and 2b predicted that change frequency will moderate the association between relationship quality with task performance and OCB such that the associations will be stronger when change frequency is high. As shown in Table 3, the cross-level interaction effects were significant for task performance (Model 6: $\gamma = .22, p < .05$) and OCB (Model 7: $\gamma = .20, p < .05$). Thus, our results supported Hypotheses 2a and 2b.

For Hypothesis 2, we plotted moderating effects of change frequency on OCB across relationship quality ($\pm 1$SD; Aiken & West, 1991). Figure 1 shows that the association between relationship quality and OCB was stronger when change frequency was high. Because the plot of the moderating effects of change frequency on the relationship quality—task performance association was very similar to that of Figure 1, we omitted this interaction plot.

Discussion

Although researchers have generally posited that transformational leadership should influence organizational change efforts (Bass & Riggio, 2003; Pawar & Eastman, 1997), few studies have considered the context in which transformational leaders operate (Bass & Riggio, 2006; Nemanich & Keller, 2007). Our analysis of the relationship between transformational leadership and employee performance in a continuous incremental change context partly addresses the dearth of research on the topic. We found that transformational leadership was related to employees’ performance (i.e., task performance and OCB) mainly through the quality
of the relationship developed between managers and employees. We also found the frequency with which changes occurred in the teams moderated the link between relationship quality and performance. The nature of this moderation effect showed that this link was stronger when change frequency was high.

Our study is one of a few to examine mediating processes that explain transformational leadership’s influence on performance at lower levels where change is confronted on a day-to-day basis. In contexts where frequent change exerts adaptation demands on employees, transformational leaders appear to personalize the change vision and work closely with employees to make it a reality. The mediating influence of relational quality underscores the importance of social support when working under incremental continuous change conditions. Relational quality might prevent emotionally laden misunderstandings because it encourages frequent communication and information sharing (Ford, Ford, & D’Amelio, 2008). Essentially, this interpersonal bridge-building allows employees to better understand changes required in their work routines and social practices, and it provides assurance that managers are likely to support changes as they are incorporated. These results are consistent with prior suggestions that relationship quality is essential for linking transformational leader behavior with employee performance (Howell & Hall-Merenda, 1999; Wang et al., 2005).

Depending on the frequency of change in work teams, the quality of leader-member relationships can differentially influence employee performance. Although relationship quality was associated with employee performance behaviors regardless of change frequency, this association was more positive in contexts where changes were more frequently implemented. This finding suggests more frequent change generates greater needs for direction and assistance from managers. Researchers have noted that for change to diffuse throughout an organization, employees must feel valued rather than faceless cogs in the process (Bartunek, Rousseau,
Leadership and Performance during Continuous Change 22

Rudolph, & DePalma, 2006). Congruent with this notion, Higgs and Rowland (2011) concluded from their interviews with managers in 33 organizations that change efforts were more successful when employees worked with managers who were more facilitating and engaging. As employee demands for leader resources increase, the value of high quality relationships translates into better performance. In essence, our study suggests that to be more effective in high frequency change contexts, managers not only need to exhibit transformational leadership but also actively engage in high quality relationships with their employees.

As noted above, our study assessed both task performance and OCB because they highlight differing types of behavioral change consequences. That adjusting to task-related changes requires employees to draw upon relevant cognitive skills and abilities is readily apparent. However, less obvious is the notion that task-related change can also involve interpersonal demands (Bartunek, Balogun, & Do, 2011) requiring employees to effectively use relational skills. Such skills (e.g., being aware of others’ as well as their own emotions in dealing with adaptations and inconveniences) are especially important in work teams where members perform interdependent tasks and are jointly accountable for team outcomes. Incorporating both in-role (task performance) and discretionary (OCB) outcome measures allowed us to gauge more broadly the effects of transformational leadership during continuous incremental organizational change.

Including both team and individual level variables in our study reflects a movement by change researchers to directly capture the multi-level nature of organizational change (cf. Caldwell et al., 2004; Herold et al., 2008). Our study design permitted us to examine whether leadership influences manifested at the team level cascaded downward through manager-employee relationships to individual performance behaviors. We recognize an ultimate objective of organizational change interventions is organization-level improvement, and that tracking
incremental continuous change at lower organizational levels is not likely considered very glamorous by top-level managers. However, we argue that it is through an accumulation of “in-the-trenches” adaptations that organizational-level change programs ultimately succeed (Burke, 2002). Our findings support a bottom-up view of change, and we encourage future research to craft designs to further explore this perspective.

**Study Limitations and Future Research**

Our study includes several noteworthy features, including multi-source, multi-level international data. These features offer both benefits and limitations. Future studies should endeavor to longitudinally separate the measurement of the independent, mediator, and dependent variables (Podsakoff et al., 2003). Incorporating a longitudinal design could help establish causal direction and address the role of time as organizational change progresses (cf. Kim et al., 2011; Pettigrew, Woodman, & Cameron, 2001). In addition, to supplement behavioral indicators of employee task performance, future research should incorporate objective measures of employee productivity. Another limitation is that we did not measure transactional leadership, assessing instead only transformational leadership due to its core relevance for processes of change and adaptation (Bass & Riggio, 2006). We acknowledge that including transactional leadership would have allowed us to better discriminate between transformational and transactional leadership effects (cf. Bass, 1999; Judge & Piccolo, 2004) and urge researchers to examine both in future organizational change studies. Finally, future studies should consider other change-related variables, such as employees’ organizational change beliefs (Armenakis, Bernerth, Pitts, & Walker, 2007), and examine their role in the change process and context.

We used data collected from two companies in China, where social ties and obligations govern individual behaviors (Gelfand, Bhawuk, Nishii, & Bechtold, 2004). Study participants’ behaviors and their interactions could have been influenced by the Chinese cultural context, but
we contend it should not have unduly affected the findings. First, although Western researchers
developed the transformational leadership construct, it has been described as a universal process
(Bass, 1997). Studies conducted in non-Western cultures have consistently found
transformational leadership—outcome relations to parallel those discovered in Western cultures
(cf. Kirkman et al., 2009; Wang et al., 2005). Second, recent cross-cultural research has
demonstrated that transformational leadership effects hold across both Chinese and U.S. contexts
(cf. Kirkman et al., 2009; Schaubroeck, Lam, & Cha, 2007). However, we suggest future
examinations of our model be replicated in Western contexts as well. Furthermore, specific
cultural value dimensions (e.g., power distance, uncertainty avoidance) might be examined in
connection with employee reactions to transformation leadership during organizational change.

**Practical Implications and Conclusion**

Our study underscores the importance of relationship quality in the midst of continuous
incremental change. To respond quickly to change, some scholars have recently suggested that
organizations should strive to incorporate behavioral flexibility into their human resource
systems (Beltrán-Martin, Roca-Puig, Escrig-Tena, & Bou-Llusar, 2008). Such flexibility refers
to employees’ capacity to exhibit a variety of behavioral repertoires under different
circumstances. One means of developing behavioral flexibility at lower organizational levels is
to encourage employees to go beyond prescribed roles in working with team members and other
employees. Our results suggest transformational leadership might shape the change environment
so that employees feel well supported and develop a more expansive view of their work. This
would encourage them to help with unforeseen task requirements, such as backing up other team
members who are adapting to changing work demands (Porter, Hollenbeck, Ilgen, Ellis, West, &
Moon, 2003). It could also give employees more confidence in deploying skills and abilities to
address a range of change alternatives (Liao et al., 2010).
Because change is necessary in environments characterized by economic instabilities, shifting market demands, and technological advances (Burke, 2002), organizations must condition managers to expect and prepare for it. Through training, organizations can encourage managers in turbulent contexts to utilize the energizing aspects of transformational leadership to facilitate the development of high quality relationships. When managers are initiating in-the-trenches change, the more personal aspects of transformational leadership (e.g., individualized consideration, inspirational motivation, intellectual stimulation) might have special value.

Simons (1999) noted that transformational leadership theory recognizes the importance of managers walking their talk with respect to change, and maintaining behavioral integrity in the eyes of employees undergoing necessary adaptation. During continuing change at lower levels, it could well be that the relationship quality associated with transformational leadership boosts employee perceptions of managers’ behavioral integrity which, in turn, translates into employee performance improvements.

In conclusion, our results suggest that lower-level managers should be transformational during continuous incremental organizational change. Perhaps because of the closer contact managers have with employees in such change contexts, transformational leadership acts to generate beneficial relationships with their employees, which encourage positive change outcomes like task performance and OCB. We also found that a frequent change context generates more demand for quality relationships between leaders and employees, which if met, result in higher performance levels. These findings can inform effective management practice and underscore the challenges organizations must confront in contexts marked by continual change.
References


Leadership and Performance during Continuous Change


Table 1  
*Méans, Standard Deviations, and Intercorrelations among Study Variables*  

<table>
<thead>
<tr>
<th>Variable</th>
<th>( M )</th>
<th>( SD )</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>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual-level variables (^a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Organization</td>
<td>.43</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dyad tenure (years)</td>
<td>2.12</td>
<td>1.40</td>
<td>.22(^**)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Organizational tenure (years)</td>
<td>2.67</td>
<td>2.45</td>
<td>.26(^**)</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Relationship quality</td>
<td>5.85</td>
<td>.57</td>
<td>-.24(^**)</td>
<td>-.12</td>
<td>-.15(^*)</td>
<td>(.91)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Task performance</td>
<td>5.62</td>
<td>.68</td>
<td>.16(^*)</td>
<td>.06</td>
<td>-.06</td>
<td>.56(^**)</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Organizational citizenship behavior</td>
<td>5.06</td>
<td>.55</td>
<td>.17(^**)</td>
<td>-.07</td>
<td>.01</td>
<td>.52(^**)</td>
<td>.77(^**)</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team-level variables (^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Team size</td>
<td>4.28</td>
<td>.77</td>
<td>-.46(^**)</td>
<td>-.08</td>
<td>-.16(^*)</td>
<td>.16(^*)</td>
<td>.01</td>
<td>-.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Transformational leadership</td>
<td>2.90</td>
<td>.42</td>
<td>.15(^*)</td>
<td>.03</td>
<td>-.02</td>
<td>.51(^**)</td>
<td>.53(^**)</td>
<td>.42(^**)</td>
<td>-.10</td>
<td>(.96)</td>
<td></td>
</tr>
<tr>
<td>9. Change frequency</td>
<td>4.52</td>
<td>1.03</td>
<td>.05</td>
<td>.05</td>
<td>.02</td>
<td>-.24(^**)</td>
<td>-.01</td>
<td>-.09</td>
<td>-.14(^*)</td>
<td>-.01</td>
<td>(.88)</td>
</tr>
</tbody>
</table>

*Note.* \(^a\) \( N = 251 \) individuals. \(^b\) \( N = 78 \) teams. Values in parentheses along the diagonal represent coefficient alphas for the individual-level and team-level scales. Scores for team-level variables were calculated as team-level means, assigned back to individuals.

\(^*\) \( p < .05. \)^\(^**\) \( p < .01.\)
### Table 2

*HLM Analyses of Mediation*

<table>
<thead>
<tr>
<th>Model</th>
<th>Dependent variable</th>
<th>Task performance</th>
<th>OCB</th>
<th>Relationship quality</th>
<th>Task performance</th>
<th>OCB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Level-1 variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td>.18 (.09)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.15 (.09)</td>
<td>-.29 (.08)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.33 (.11)&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.31 (.10)&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
<tr>
<td>Dyad tenure (years)</td>
<td></td>
<td>.07 (.05)</td>
<td>-.02 (.05)</td>
<td>.02 (.04)</td>
<td>.05 (.04)</td>
<td>-.03 (.04)</td>
</tr>
<tr>
<td>Organizational tenure (years)</td>
<td></td>
<td>-.03 (.02)</td>
<td>-.01 (.02)</td>
<td>-.03 (.02)</td>
<td>-.01 (.01)</td>
<td>.01 (.01)</td>
</tr>
<tr>
<td>Relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.60 (.15)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.49 (.11)&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td>Level-2 variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td></td>
<td>.11 (.06)</td>
<td>.01 (.05)</td>
<td>.07 (.05)</td>
<td>.07 (.05)</td>
<td>-.03 (.05)</td>
</tr>
<tr>
<td>Group-mean relationship quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.54 (.14)&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.55 (.14)&lt;sup&gt;***&lt;/sup&gt;</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td></td>
<td>.85 (.11)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.53 (.11)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.77 (.06)&lt;sup&gt;***&lt;/sup&gt;</td>
<td>.43 (.13)&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.10 (.12)</td>
</tr>
</tbody>
</table>

*Note. N = 251 individuals and N = 78 teams. Unstandardized regression coefficients are reported.  
<sup>a</sup>The first value is the parameter estimate, and the value within parenthesis is the standard error.  
OCB = organizational citizenship behavior.  
* p < .05.  ** p < .01.  *** p < .001.
Table 3

**HLM Analyses of Moderation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Task performance</th>
<th>OCB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization (Org)</td>
<td>.51 (.09)***a</td>
<td>.41 (.08)***</td>
</tr>
<tr>
<td>Dyad tenure (DT)</td>
<td>.03 (.03)</td>
<td>-.02 (.03)</td>
</tr>
<tr>
<td>Organizational tenure (OT)</td>
<td>-.00 (.02)</td>
<td>.00 (.02)</td>
</tr>
<tr>
<td>Team size (TS)</td>
<td>.05 (.06)</td>
<td>-.02 (.05)</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship quality (RQ)</td>
<td>.63 (.11)***</td>
<td>.50 (.09)***</td>
</tr>
<tr>
<td>Change frequency (CF)</td>
<td>.09 (.04)</td>
<td>.02 (.04)</td>
</tr>
<tr>
<td><strong>Between-group interaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ X CF</td>
<td>.02 (.01)</td>
<td>.01 (.01)</td>
</tr>
<tr>
<td><strong>Cross-level interaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ X CF</td>
<td>.22 (.10)*</td>
<td>.20 (.09)*</td>
</tr>
</tbody>
</table>

Note. N = 251 individuals and N = 78 teams. OCB = organizational citizenship behavior.

a The first value is the parameter estimate and the value within parenthesis is the standard error.

For example, the following hierarchical linear modelling (HLM) model was used to test Hypothesis 2 (i.e., OCB):

Level 1: L1: \( (OCB)_{ij} = B_{0j} + B_{ij}(Org_{ij}) + B_{2j}(DT_{ij}) + B_{3j}(OT_{ij}) + B_{4j}(RQ_{ij}) + r_{ij} \)

Level 2: L2: \( B_{0j} = G_{00} + G_{01}(TS_{j}) + G_{02}(RQ_{j}) + G_{03}(CF_{j}) + G_{04}(RQ_{j} \times CF_{j}) + U_{0} \)

\( B_{1j} = G_{10} \)

\( B_{2j} = G_{20} \)

\( B_{3j} = G_{30} \)

\( B_{4j} = G_{40} + G_{41}(CF_{j}) + U_{4} \)

* \( p < .05 \).  *** \( p < .001 \).
Figure 1
Modest Moderating Effects of Change Frequency on Relationship Quality—OCB Relations