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Leadership competencies for implementing planned organizational change

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ABSTRACT

This paper bridges the leadership and organizational change literatures by exploring the relationship between managers' leadership competencies (namely, their effectiveness at person-oriented and task-oriented behaviors) and the likelihood that they will emphasize the different activities involved in planned organizational change implementation (namely, communicating the need for change, mobilizing others to support the change, and evaluating the change implementation). We examine this relationship using data from 89 clinical managers at the United Kingdom National Health Service who implemented change projects between 2003 and 2004. Our results lend overall support to the proposed theory. This finding suggests that treating planned organizational change as a generic phenomenon might mask important idiosyncrasies associated both with the different activities involved in the change implementation process and with the unique functions that leadership competencies might play in the execution of these activities.

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One of the defining challenges for leaders is to take their organizations into the future by implementing planned organizational changes that correspond to premeditated interventions intended to modify organizational functioning towards more favorable outcomes (Lippit, Watson, & Westley, 1958). Although formal strategic assessment and planning are important elements of this process, a far more challenging task is implementing change in the organization once a direction has been selected. Over the last two decades, research about transformational and charismatic leadership has explored the relationship between leadership characteristics or behaviors and organizational change (for reviews see Bass, 1999; Conger & Kanungo, 1998; House & Aditya, 1997; Yukl, 1999, 2006). There is growing evidence that change agents' leadership characteristics and behaviors influence the success or failure of organizational change initiatives (e.g., Berson & Avolio, 2004; Bommer, Rich, & Rubin, 2005; Eisenbach, Watson, & Pillai, 1999; Fiol, Harris, & House, 1999; Higgs & Rowland, 2000, 2005; House, Spangler, & Woycke, 1991; Howell & Higgins, 1990; Struckman & Yammarino, 2003; Waldman, Javidan, & Varella, 2004).

Most of the leadership studies that account for the relationship between leadership and change do not, however, account for the complexity of intra-organizational processes (Yukl, 1999), including the complexity of the organizational change

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implementation process, which involves different activities. That planned organizational change implementation involves different activities in which leadership competencies might play different roles has thus largely been ignored by the leadership literature (Higgs & Rowland, 2005). In contrast, the literature on organizational change addresses the complexity of the change process (for a review, see Armenakis & Bedeian, 1999 and Van de Ven & Poole, 1995) as well as the role of managers in various change implementation activities (for a review, see Armenakis & Bedeian, 1999 and Kanter, Stein, & Jick, 1992). Yet, an implicit common assumption of most of these studies is that change agents already possess the requisite competencies, skills, and abilities to engage in the different change implementation activities.

In this paper, building jointly on the leadership and organizational change literatures, we argue that managers' likelihood to emphasize the different activities involved in planned organizational change implementation varies with their mix of leadership competencies. This exploratory study is, to our knowledge, the first work that theorizes and empirically examines the relationship between managers' leadership competencies and the emphasis they put on the activities involved in change implementation.

On leadership competencies, we adopt the task-oriented and person-oriented behaviors model (Bass, 1990; House & Baetz, 1979; Stodgill & Coons, 1957) also referred to as 'the initiating structure and showing consideration' model (House & Aditya, 1997). This classic model covers a vast majority of the day-to-day leadership activities in which leaders engage at the supervisory level (Casimir, 2001) and still remains a powerful model to analyze leadership effectiveness (Judge, Piccolo, & Ilies, 2004). Importantly, it is particularly well suited to the study of leadership in the context of organizational change (Beer & Nohria, 2000; Nadler & Tushman, 1999). On change activities, we emphasize three key activities involved in organizational change implementation: communicating the need for change, mobilizing others to support the change, and evaluating the change implementation. Building on Lewin's (1947) three-phase model of change, prior conceptual and empirical work (despite differences among them) recurrently emphasizes these three sets of activities, which cover most of the activities involved in change implementation (e.g., Beckhard & Harris, 1977; Beer, 1980; Ford & Greer, 2005; Kanter, 1983; Nadler & Tushman, 1989; Tichy & Devanna, 1986).

Our empirical analyses of 89 clinical managers at the National Health Service (NHS) in the United Kingdom who implemented planned change projects in their organizations lend overall support to the proposed theory that managers' likelihood to emphasize each of the different activities involved in planned organizational change implementation (namely, communicating the need for change, mobilizing others to support the change, and evaluating the change implementation) varies with their mix of leadership competencies (namely, their effectiveness at task-oriented and person-oriented behaviors). This finding suggests that treating planned organizational change as a generic phenomenon might mask important idiosyncrasies of both the activities involved in the change implementation process and the unique functions leadership competencies might play in the execution of these activities.

1. Effective leadership and the enactment of planned organizational change

Notwithstanding a multitude of concepts advanced by leadership researchers (for a review, see House & Aditya, 1997), we focus on the task-oriented and person-oriented behaviors model (Bass, 1990; House & Baetz, 1979; Stodgill & Coons, 1957), also referred to as the initiating structure and showing consideration model (House & Aditya, 1997). In this model, *task-oriented skills* are those related to organizational structure, design, and control, and to establishing routines to attain organizational goals and objectives (Bass, 1990). These architectural functions are important not only for achieving organizational goals, but also for developing change initiatives (House & Aditya, 1997; Huy, 1999; Nadler & Tushman, 1990; Yukl, 2006). *Person-oriented skills* include behaviors that promote collaborative interaction among organization members, establish a supportive social climate, and promote management practices that ensure equitable treatment of organization members (Bass, 1990). These interpersonal skills are critical to planned organizational change implementation because they enable leaders to motivate and direct followers (Chemers, 2001; van Knippenberg & Hogg, 2003; Yukl, 2006).

The task-/person-oriented behaviors model is particularly relevant and suitable for this study, for three main reasons. First and foremost, this model is particularly well suited to the study of leadership in the context of organizational change. Nadler and Tushman (1999) highlighted that task-oriented behaviors and person-oriented behaviors are key to influence organizational change. Similarly, Beer and Nohria (2000) made a distinction between "Theory E" leaders, who are more task-oriented and "Theory O" leaders, who are more person-oriented. They proposed that these different categories of leaders adopt different approaches to change implementation. Second, task-oriented and person-oriented leadership behaviors have been shown to cover a vast majority of the day-to-day leadership activities in which leaders engage at the supervisory level (Casimir, 2001). The task-/person-oriented behaviors model is thus particularly appropriate as we focus, in the context of this study, on change behaviors carried out by managers who were all in a supervisory role. Finally, although the introduction of this model goes back to the 1950s, recent empirical research shows that the task-/person-oriented behaviors model remains a powerful model to analyze leadership effectiveness (Judge et al., 2004; Keller, 2006).

Effectiveness at task-oriented and person-oriented behaviors requires different but related sets of competencies. Effectiveness at task-oriented behaviors hinges on the ability to clarify task requirements and structure tasks around an organization's mission and objectives (Bass, 1990). Effectiveness at person-oriented behaviors, on the other hand, relies on the ability to show consideration for others as well as to take into account one's own and others' emotions (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Seltzer & Bass, 1990). Managers might be effective at both task-oriented and person-oriented leadership behaviors, or they might be effective at only one or the other, or perhaps at neither. Such variation in leadership behaviors, we argue, has implications for planned organizational change implementation. More specifically, we argue that, depending on their mix of leadership competencies, leaders might differentially emphasize the activities involved in planned organizational change implementation.

To implement planned organizational change projects, leaders undertake specific activities (Galpin, 1996; Judson, 1991; Kotter, 1995; Lewin, 1947; Rogers, 1962) and mistakes in the execution of any of these activities or efforts to bypass some of them are detrimental to the progress of change (Armenakis & Bedeian, 1999). In this paper, based on a detailed review of the literature, we adopt a model that emphasizes three key activities involved in planned organizational change implementation: *communicating*, *mobilizing*, and *evaluating*. *Communicating* refers to activities leaders undertake to make the case for change, to share their vision of the need for change with followers. *Mobilizing* refers to actions leaders undertake to gain co-workers' support for and acceptance of the enactment of new work routines. *Evaluating* refers to measures leaders employ to monitor and assess the impact of implementation efforts and institutionalize changes.

Although these three sets of activities do not do complete justice to the complexity of the change implementation process, they have been identified in the literature on organizational change as key categories, which are conceptually distinct from each other and which cover most of the activities involved in change implementation. Prior conceptual and empirical works (despite differences among them) recurrently emphasize these three sets of activities (e.g., Beckhard & Harris, 1977; Beer, 1980; Ford & Greer, 2005; Kanter, 1983; Nadler & Tushman, 1989; Tichy & Devanna, 1986). Building on Lewin's (1947) three-phase model of change, these studies distinguish between these three types of change implementation activities, highlighting that understanding how change unfolds requires understanding what induces a leader to emphasize these activities (for reviews see Armenakis & Bedeian, 1999, and Kanter et al., 1992).

In the remainder of the paper, we examine the relationship between managers' leadership competencies and their likelihood to put emphasis on each of the three change implementation activities. More specifically, we propose that leaders who are more effective in person-oriented behaviors are more likely to focus on the communicating and on the mobilizing activities than other leaders, and less likely to focus on the evaluating activities than other leaders; and that leaders who are more effective in task-oriented behaviors are more likely to focus on the mobilizing and the evaluating activities than other leaders, and less likely to focus on the communicating activities than other leaders.

1.1. *Communicating the need for organizational change*

To destabilize the status quo and paint a picture of the desired new state for followers, change leaders must communicate the need for change. Organization members need to understand why behaviors and routines need to change (Fiol et al., 1999; Kotter, 1995). Resistance to change initiatives is partly attributable to organization members' emotional reactions, stemming, for example, from threats to self-esteem (Nadler, 1982), confusion and anxiety (Kanter, 1983), or stress related to uncertainty (Olson & Tetrick, 1988). Leaders skilled at interpersonal interaction are able to monitor and discriminate among their own and others' emotions, and to use this information to guide thinking and action (Goleman, 1998; Salovey & Mayer, 1990). They are able to recognize and leverage their own and others' emotional states to solve problems and regulate behaviors (Huy, 1999). In the context of planned organizational change, consideration for others makes them likely to anticipate the emotional reactions of those involved in the change process and to take the required steps to attend to those reactions (Huy, 2002; Oreg, 2003). They are likely to emphasize the communicating activities of planned organizational change implementation as a way to explain why the change is needed, and to discuss the nature of the change and thereby reduce organization members' confusion and uncertainty. Being at ease with the interpersonal dimension that communication involves (Bass, 1990), person-oriented leaders are also more inclined to put emphasis on communicating activities.

Hypothesis 1a. Leaders who are more effective at person-oriented behaviors are more likely than other leaders to focus on the activities associated with communicating the need for change.

Leaders who are effective at task-oriented behaviors, on the other hand, are organizational architects (Bass, 1985, 1990). Rather than communicating the need for change, task-oriented leaders are likely to concentrate their energies on developing the procedures, processes and systems required to implement planned organizational change. Because they are also more likely to keep their distance, psychologically, from their followers, task-oriented leaders may be less inclined to put emphasis on communicating activities (Blau & Scott, 1962).

Hypothesis 1b. Leaders who are more effective at task-oriented behaviors are less likely than other leaders to focus on the activities associated with communicating the need for change.

1.2. *Mobilizing others to accept change*

During implementation, leaders must mobilize organization members to accept and adopt proposed change initiatives into their daily routines (Higgs & Rowland, 2005; Kotter, 1995; Oreg, 2003). Mobilizing is made difficult by the different personal and professional objectives, and thus different outlooks on the change initiative, of those who are affected by it. Organization members who have something to gain will usually rally around a change initiative; those who have something to lose resist it (Bourne & Walker, 2005; Greenwood & Hinings, 1996).

The object of mobilizing is to develop the capacity of organization members to commit to and cooperate with the planned course of action (Huy, 1999). To do this, leaders must create a coalition to support the change project (Kotter, 1985, 1995). Creating such a coalition is a political process that entails both appealing to organization members' cooperation and initiating

organizational processes and systems that enable that cooperation (Nadler & Tushman, 1990; Tushman & O'Reilly, 1997a, 1997b). Mobilizing thus entails both person-oriented and task-oriented skills.

Securing buy-in and support from the various organization members can be an emotionally charged process (Huy, 1999). Person-oriented leaders show consideration for others and are good at managing others' feelings and emotions (Bass, 1990). They value communication as a means of fostering individual and group participation, and explicitly request contributions from members at different management levels (Vera & Crossan, 2004). Effective communicators and managers of emotions can marshal commitment to a firm's vision and inspire organization members to work towards its realization (Egri & Herman, 2000). Their inclination to take others into account makes them more likely to pay attention to individuals' attitudes towards change and to anticipate the need to involve others in the change process.

Hypothesis 2a. Leaders who are more effective at person-oriented behaviors are more likely than other leaders to focus on the activities associated with mobilizing organization members.

Mobilizing also implies redesigning existing organizational processes and systems in order to push all organization members to adopt the change (Kotter, 1995; Tushman & O'Reilly, 1997a, 1997b). For example, if a leader wants to implement a new system of quality control but does not change the reward system accordingly, organization members will have little incentive to adopt the new system. Redesigning existing organizational processes and systems so as to facilitate coalition building requires task-oriented skills.

Leaders who are effective at task-oriented behaviors are skilled in designing organizational processes and systems that induce people to adopt new work patterns (Bass, 1990). Their focus on getting tasks done leads them to identify the different stakeholders who need to be involved in the tasks associated with the change effort and build systems that facilitate their involvement. Because they focus on structure, systems, and procedures, task-oriented leaders are more likely to be aware of the need to put in place systems that facilitate people's rallying behind new objectives. As skilled architects, they are also more likely to know how to redesign existing organizational processes and systems so as to facilitate coalition building.

Hypothesis 2b. Leaders who are more effective at task-oriented behaviors are more likely than other leaders to focus on the activities associated with mobilizing organization members.

1.3. Evaluating change project implementation

Finally, change leaders need to evaluate the extent to which organization members are performing the routines, practices, or behaviors targeted in the planned change initiative. As champions of the organization's mission and goals, leaders have a role in evaluating the content of change initiatives and ensuring that organization members comply with new work routines (Yukl, 2006). Before the change becomes institutionalized, change leaders often step back to assess both the new processes and procedures that have been put in place and their impact on the organization's performance. To this end, leaders employ measures to monitor and assess the impact of implementation efforts and institutionalize changes. Such processes are typically based on formal systems of measurement (Burke & Litwin, 1992; Ford & Greer, 2005; Galpin, 1996; Kotter, 1995; Simons, 1995). Person-oriented leaders have been shown to be reluctant to place too much emphasis on method, productivity and on the imposition of impersonal standards (Bass, 1990). As a result, they might be less likely to engage in the evaluating activities involved in change implementation and to pursue them.

Hypothesis 3a. Leaders who are more effective at person-oriented behaviors are less likely than other leaders to focus on the activities associated with evaluating change project implementation.

Task-oriented leaders, on the other hand, tend naturally to focus on tasks that must be performed to achieve the targeted performance improvements (Bass, 1990). Their attention to structure and performance objectives attunes them to the attainment of these objectives. They are both aware of the need to analyze goals and achievements and comfortable with the need to refine processes following evaluation.

Hypothesis 3b. Leaders who are more effective at task-oriented behaviors are more likely than other leaders to focus on the activities associated with evaluating change project implementation.

2. Data and methods

2.1. Setting: The United Kingdom National Health Service

Our field of study was the United Kingdom National Health Service (NHS). The NHS is a public, state-funded health system with one million employees and a budget of more than £60 billion that offers a wide range of preventive, primary, and acute health care services. The government is responsible for financing and guaranteeing universal healthcare that is free at the point of service.

In 1997, under the leadership of the Labour Government, the NHS embarked on a ten-year modernization effort aimed at improving the quality, reliability, effectiveness, and value of the healthcare services delivered to society (Department of Health, 1999). The goal set by the government was to "design a service centered on patients which puts them first; [the service] will be faster, more convenient and offer [patients] more choice" (Department of Health, 2006). At the organizational level, the goal of creating a patient and service oriented NHS entailed reducing waiting times for emergency and hospital services, improving the

quality of services for people with chronic conditions such as diabetes and heart disease, developing the range and complexity of primary care services, and using the work force in a more effective manner.

The NHS is a particularly appropriate setting for testing our hypotheses because of its reliance on local leaders to implement national policy (Department of Health, 1997). NHS managers play a key role in the implementation of changes because NHS policies provide, rather than a narrowly defined blueprint, a broad outline that accommodates local innovation (Harrison & Wood, 1999; Peckham & Exworthy, 2003). Thus, although the government mandates initiatives for change, managers at the regional and organizational levels are responsible for implementing changes appropriate to local needs and circumstances. In this type of setting, local leaders' strategies for managing the change process are less likely to be constrained by actors outside the local context. These conditions make it possible to analyze the impact of leadership competencies on the way managers lead the implementation of organizational change projects.

2.2. Data collection and sample

We test our hypotheses with data from change projects conducted by middle or top managers from the NHS between January 2003 and December 2004. Our data were gathered from 95 managers working in 81 different organizations within the NHS who attended a two-week strategic leadership executive education program in 2003. Each program participant was required to design and implement a change project in his/her organization. Participants were self-selected into the program and free to choose the change project they implemented. Before attending the program, participants were required to write a comprehensive description of the change project they intended to initiate. They started implementing their change project right after the program and were asked to refine their change project description after three months of implementation to reflect any modification of their change project. Participants were also asked to participate in a 360-degree leadership survey that was filled out three months before they attended the executive education program. Leadership data were thus collected three months before they attended the program and three months and a half before their started implementing their change project.

After twelve months of project implementation, we administered a telephone survey to collect information about how program participants had implemented their change projects. The participants also granted us access to their resumes. Although participation was voluntary, all program participants agreed to participate in the study. Data for six participants were incomplete, leaving a final sample of 89 change projects implemented by 89 managers in 77 different organizations.

The 89 managers, 67 women and 22 men, ranged in age from 34 to 56 years (average age 43); 21 were physicians, 41 were nurses, and the remaining 27 were allied health professionals (e.g., physiotherapists, podiatrists, dieticians, and occupational therapists). All study participants had managerial responsibilities, ranging from service line manager within a single hospital to regional quality improvement managers, and came from a variety of NHS organizations. Forty-four percent worked in outpatient clinics, 45% in hospitals or other secondary care organizations, and the remaining 11% in NHS administrative bodies.

2.3. Dependent variables: Emphasis on change implementation activities

To collect information about how managers implemented their change projects, we developed and pilot tested a telephone survey. This survey was designed to collect data about the three sets of activities involved in change implementation that we identified through our literature review (i.e., communicating, mobilizing and evaluating). The survey was administered to the managers after twelve months of project implementation. Survey items were uniformly structured on a 5-point Likert scale (from (1) strongly disagree to (5) strongly agree). We constructed our three dependent variables of interest (communicating activities, mobilizing activities, and evaluating activities) as the unweighted average of items that corresponded to each of the three dimensions of the change implementation process.

2.3.1. Communicating

To measure the degree of emphasis that leaders put on the communicating activities, we used a scale comprising four items: (1) communicating the vision for change was a critical aspect of the change process; (2) relative to other aspects of the change process, the focal manager devoted significant time to communicating the need for change among other organizational members; (3) to the focal manager, effectively communicating the ideas behind the change was much more important than other aspects of the change process; and (4) the focal manager devoted a significant amount of time and energy to developing the vision for the outcomes of the organizational change.

2.3.2. Mobilizing

To measure the degree of emphasis that leaders put on the mobilizing activities, we used a scale comprising four items: (1) the focal manager specifically sought out others in his/her organization to help shape the vision of the organization following the change; (2) the focal manager worked on this change project with considerable help and input from others in the organization; (3) to the focal manager, seeking input from a wide variety of stakeholder groups in the organization was a key factor in smoothing the way for the introduction of the change; and (4) the focal manager spent a significant amount of time in redesigning organizational processes and systems to prepare his/her organization for the change.

2.3.3. Evaluating

Finally, to measure the degree of emphasis that leaders put on the evaluating activities, we used a scale comprising two items: (1) the focal manager utilized a formal system of measurement to evaluate the impact of the change; and (2) the focal manager used a formal system of measurement to evaluate the need for possible refinements to the way the change was implemented in the organization.

We measured the reliability of these items using Cronbach's alpha to assess the adequacy of the scales. Scale reliability coefficients for each of the three scales were, respectively, 0.62 for communicating, 0.64 for mobilizing, and 0.86 for evaluating. Note that all three scale reliability coefficients were greater than 0.60, which is the acceptable threshold value for exploratory studies like ours (Nunnally, 1978). We also ran confirmatory factor analysis to further establish the validity and reliability of our dependent variables. The result of this exercise improved our confidence in the measurement of our dependent variables. All test statistics were significant and models fit were very high, supporting our claim that change activities are modeled correctly (i.e., items are correctly stratified into each category).⁵

2.4. Independent variables: Leadership effectiveness

Data about participants' leadership competencies were collected using the Global Leadership Life Inventory (GLLI) (Kets de Vries, 2002). In the institution in which we collected our data, GLLI was the standard and only tool used to collect psychometric data on participants. GLLI was designed to examine “the psychodynamic processes that underlie [...] leadership” and was originally developed following a three-year study of participants in executive education programs (Kets de Vries, Vriegnaud, & Florent-Treacy, 2004: 777). Hence, it is well suited for the current study. It is typically used as a 360-degree feedback instrument. This instrument is employed to (1) help to obtain not only self-assessment of the focal manager but also feedback from colleagues, superiors, and others who are familiar with his or her leadership style, and (2) measure competencies on multiple dimensions. Thus, it provides a comprehensive assessment of managers' behaviors (Atwater & Waldman, 1998; Levy & Williams, 2004). All responses were recorded on a seven-point Likert scale. Psychometric analyses (including exploratory and confirmatory factor analyses) have shown that the GLLI has high reliability and internal consistency (see Kets de Vries et al., 2004).

2.4.1. Effectiveness at person-oriented behaviors

To measure effectiveness at person-oriented behaviors we use the “emotional intelligence” GLLI scale (Kets de Vries, 2002: 13). This scale is structured around two main sets of items. The first set of items aims to capture the extent to which the focal manager “engages in an ongoing process of self-reflection, and is both self monitoring and self regulating” and “uses feedback to improve him/herself” (Kets de Vries, 2002: 13). This dimension reflects the fact that leaders who are effective at person-oriented behaviors are characterized by a strong concern for human relations as well as a strong need for affiliation (McClelland, 1961). Their interest for others leads them to develop an acute sense of self and others combined with an acute sense of how the two interact. They are expressive and tend to develop social and emotional ties with their subordinates (Bales, 1958). The strong focus of person-oriented leaders on interpersonal interactions makes them particularly aware of not only other's but also their own emotional needs and states. This dimension is captured by seven items measuring the extent to which the focal manager (1) considers how his or her feelings affect others; (2) can read other people's feelings quite well; (3) understands the reasons why he or she feels the way he or she does in a particular situation; (4) analyzes his or her feelings before acting on them; (5) makes sure that his or her behavior is appropriate to the situation; (6) engages in an ongoing process of self-reflection; and (7) analyzes his or her mistakes in order to learn from them.

The second set of items aims to capture the extent to which the focal manager trusts his/her subordinates and provides a respectful and supportive environment (Kets de Vries, 2002). This dimension reflects the fact that leaders who are effective at person-oriented behaviors tend to display a high level of trust towards their subordinates (McGregor, 1960) and consideration for their welfare. This mutual trust and consideration is fostered through open channels of interpersonal communication as well as through the leader's willingness and ability to make people feel at ease (Bass, 1990; Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Seltzer & Bass, 1990). This dimension of the construct is captured by 5 items measuring the extent to which the focal manager (1) gives others his or her full attention when talking to them; (2) makes sure that people feel at ease with him or her; (3) actively shows respect for and interest in others; (4) works to generate trust among his or her people; and (5) gets people to open up by talking freely about himself or herself.

2.4.2. Effectiveness at task-oriented behaviors

To measure effectiveness at task-oriented behaviors we use the “design and controlling” GLLI scale (Kets de Vries, 2002: 9). This scale is structured around two sets of items. The first set of items aims to capture the extent to which the focal manager “makes people accountable and holds them to commitments and deadlines” (Kets de Vries, 2002: 9). This dimension reflects the fact that leaders who are effective at task-oriented behaviors demonstrate a strong concern for the group's goals as well as for the

⁵ The chi-squared statistic, a standard measure of model fit, is 35.398, with $df = 32$ and p -value = 0.311. This strongly shows that the model fits well. Because the chi-squared statistic is strongly dependent on sample size, a number of other measures are used in the literature to substantiate the model fit (and establish its robustness), including GFI (goodness-of-fit index—0.90 or better is considered good), CFI (comparative-fit-index—0.90 or better is considered good), and RMSEA (root-mean-square error or approximation—0.05 or less is considered good). On these grounds, too, the model demonstrates a good fit (GFI, CFI > 0.9, RMSEA < 0.05).

systems to put in place to achieve these goals (Bass, 1990). Their strong focus on performance (Misumi, 1985) leads them to set deadlines, to monitor goal achievement and to enforce sanctions, if necessary (Bales, 1958). This dimension is captured by three items measuring the extent to which (1) the focal manager sets clear performance standards and goals; (2) makes sure that performance standards are adhered to; and (3) makes people accountable for their commitments and deadlines.

The second set of items is aimed to capture the extent to which the focal manager “builds alignment between values, attitudes, behaviors on the one hand, and systems on the other” (Kets de Vries, 2002: 9). This dimension reflects the fact that task-oriented leaders are characterized by their ability to clarify task requirements and structure tasks around an organization's mission and objectives (Bass, 1990). They create alignment between collective and individual goals, between the values and the systems designed to achieve these goals (Bass, 1990). This dimension is captured by four items measuring the extent to which the focal manager (1) works to develop organizational systems that reflect corporate values, attitudes, and behaviors; (2) is actively involved in designing management systems to facilitate effective behavior; (3) develops corporate values that serve to unite people in the organization; and (4) ensures that people respect the basic values of the corporate culture.

The leadership effectiveness measures are average scores derived from evaluations of focal managers' superordinates, subordinates, and peers (Kets de Vries et al., 2004). For each manager, we obtained between four and twelve evaluations (average, 7.9). Scale reliability coefficients (i.e. standardized Cronbach's alpha values) for each of the two effectiveness measures were 0.60 and 0.74, respectively, across category (superordinates, subordinates, and peers) averages.⁶ Both leadership effectiveness variables were mean-centered in all regression analyses. Because the leadership survey was administered three months before the change projects were implemented, the risk of reverse causality was minimized. Furthermore, the potential common method variance bias does not materialize in this study as we gathered data for the independent variables (leadership effectiveness) and dependent variables (emphasis on planned change implementation activities) from different sources at different points in time.

2.5. Control variables

Because managers might put varying degrees of emphasis on the different activities associated with the implementation of planned organizational change for reasons other than their leadership competencies, we controlled for a number of project-specific, organization-specific, and career-specific characteristics identified in prior work.

2.5.1. Project type

The type of change project might affect the degree of emphasis managers place on particular implementation tasks. Creating a new service, for example, usually requires more energy and effort than redesigning an existing service (Van de Ven, Angle, & Poole, 1989). Hence, managers who implement change projects that create a new service might put more emphasis on each of the three planned organizational change implementation activities. Accordingly, if we do not control for what type of project is implemented, we risk incorrectly attributing the associated variation on the dependent variables (i.e., emphasis on different activities involved in the change implementation) to leadership qualities. We thus included in our regression models a dummy for creation of a new service.

To create this variable, we coded each project into different project type categories using the change project descriptions prepared by the participants after three months of project implementation. We distinguished between projects aimed at creating new administrative or patient care services and projects aimed at redesigning existing administrative or patient care services. Two authors and two independent coders, blind to the study's hypotheses, coded the change project description that all the managers included in our sample wrote after three months of project implementation. To facilitate resolution of discrepancies, they noted passages in the change project descriptions deemed relevant to the codes (Larsson, 1993). Inter-rater reliability, as assessed by the kappa correlation coefficient, was greater than 0.90, suggesting a high degree of agreement among the four raters (Fleiss, 1981; Landis & Koch, 1977).

Change projects that sought to establish new administrative services addressed topics such as creating computerized patient records or clinical care databases. Projects aimed at redesigning existing administrative services addressed topics such as pay or certification improvement programs. Change projects that sought to establish new patient care services targeted, for example, vulnerable populations such as prisoners and the frail elderly. Finally, projects aimed at redesigning existing patient care services addressed, for example, redefinition of the roles of nurses, allied health professionals, and physicians in the delivery of rehabilitation services for stroke patients in a given hospital.

2.5.2. Organization size

Another potential explanation for the degree of emphasis managers accord the three activities of planned organizational change implementation is the size of the organization. Compared to smaller organizations, large organizations might have more standard operating procedures related to change implementation and more resources to devote to the process (Huber, Sutcliffe, Miller, & Glick, 1993). Size having also been shown to be a factor that inhibits organizational change (e.g., Blau & Shoenherr, 1971; Child, 2005; Hannan & Freeman, 1984; Kimberly, 1976), managers in larger organizations might have to put more emphasis on

⁶ Note that we did not use individual evaluations, but category averages as we constructed our leadership effectiveness proxies. Given confidentiality agreements, this was the finest level at which we were able to obtain data. Reduction in number of observations and aggregation naturally resulted in relatively lower reliability coefficients. Using individual evaluations, Kets de Vries and his colleagues (2004) reported Cronbach's alpha of 0.91 for emotional intelligence and 0.84 for designing and controlling in their sample of over 600 executives.

Table 1

Sample statistics and bivariate correlations.

Variable	M	SD	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
[1] Communicating	3.86	0.57	1.00									
[2] Mobilizing	3.88	0.67	0.44	1.00								
[3] Evaluating	3.31	1.12	0.27	0.46	1.00							
[4] Effectiveness at person-oriented behaviors	5.19	0.58	0.21	0.14	0.05	1.00						
[5] Effectiveness at task-oriented behaviors	5.11	0.51	0.21	0.22	0.29	0.56	1.00					
[6] Creation of a new service	0.36	0.48	0.03	0.07	0.08	−0.19	−0.03	1.00				
[7] Organization size	2.49	2.42	0.19	0.03	−0.04	−0.03	0.16	−0.17	1.00			
[8] Tenure in the current position	2.69	2.14	−0.10	0.11	0.16	0.07	0.19	−0.10	0.15	1.00		
[9] National or regional leadership role	0.79	0.41	0.13	0.25	0.32	−0.09	−0.05	0.16	0.07	0.01	1.00	
[10] Management education	0.64	0.48	0.02	−0.21	−0.02	−0.10	0.07	−0.02	0.19	0.03	−0.11	1.00

Note: N = 89.

each of the planned organizational change implementation activities to effectively impose change. We measure *organizational size* in thousands of total full time equivalents.

2.5.3. Career-specific characteristics

Career-specific characteristics too might influence the degree of emphasis managers put on the three key activities associated with planned organizational change implementation. One such characteristic is *tenure in the current position*, measured as the number of years spent in the current position. Managers with longer tenure in their positions have more in-depth knowledge of the tasks they are expected to accomplish and how to accomplish them (Huber et al., 1993). Consequently, they might be able to access more easily resources that can be used in the change implementation process. For this reason, they might, as suggested by expectancy theory (Vroom, 1964), more readily make the decision to engage in the key change implementation activities and put more emphasis on each of them.⁷

Management education could also affect the likelihood that leaders will emphasize the three key change implementation activities. Having more in-depth knowledge of the challenges associated with change implementation might dispose them to place more emphasis on these activities than might managers without advanced management education (Shipper, 1999). To control for such an explanation, we also included in our regressions a dummy for *management education*, which we measured as having completed an MBA degree.

Finally, whether leaders have a regional or national leadership role in the NHS might affect the degree to which they emphasize the three key change implementation activities. Having a perspective that extends beyond the home organization to NHS's overarching strategic and operational agenda might affect how managers implement change strategy in their local settings (Ferlie & Shortell, 2001). Those who occupy a regional or national leadership role, having access to information related to service innovations, funding for particular types of organizational development projects, and training programs, are more likely to be both aware of the challenges of implementing change in the NHS and able to leverage all available resources within and outside their organizations to implement change. As a result, they may put more emphasis on the three sets of activities involved in planned organizational change implementation. To control for this potential effect, we included a *regional or national leadership role* dummy (which takes the value of 1 if the manager has a regional or national leadership role within the NHS, 0 otherwise) in our regressions.

2.6. Estimation

We used cluster-adjusted ordinary least squares (OLS) estimations in all models. Because a non-trivial number of our observations (22 of 89) are clustered in the same organizations,⁸ baseline OLS estimates might be biased, as these observations might not be independent within groups. We therefore adjusted baseline OLS estimations by clustering data with repeated observations of organizations in order to obtain robust variance estimates that adjust for within-cluster correlation (Williams, 2000). In all models, we report heteroskedasticity-adjusted (i.e., robust) standard errors.

3. Results

We report the sample statistics and bivariate correlations in Table 1. Although there are no critically collinear variables (i.e., over 0.8 in absolute value [Kennedy, 2003]) in our data set, we nevertheless calculated variance inflation factors (VIFs) for all regression models. All VIFs were less than two, much lower than the critical value of ten, indicating no serious multi-collinearity.

⁷ In supplementary analyses not reported here, we also tested Hambrick and Fukutomi's (1991) suggestion that change is curvilinearly related to tenure in the current organizational position, that is, it is greatest at intermediate lengths of tenure, after the ability to implement change has increased but before the inclination to initiate change has declined. The same relationship might exist between managers' tenure in their current positions and the emphasis they are likely to accord each of the three key activities involved in planned change implementation. We found no support for such a curvilinear relationship in our sample.

⁸ Sixty-seven organizations are represented once in our sample, 8 organizations twice, and 2 organizations three times.

Table 2

The relationship of leadership effectiveness to the communicating activities of planned organizational change implementation.

Variable (hypothesis)	(1)	(2)	(3)	(4)
Constant	3.69** (0.15)	3.64** (0.15)	3.73** (0.16)	3.67** (0.16)
Creation of a new service	0.05 (0.12)	0.10 (0.12)	0.04 (0.11)	0.08 (0.12)
Organization size	0.05* (0.02)	0.05* (0.02)	0.04† (0.02)	0.05* (0.02)
Tenure in the current position	−0.03 (0.03)	−0.04 (0.03)	−0.04 (0.03)	−0.04 (0.03)
National or regional leadership role	0.16 (0.13)	0.18 (0.13)	0.17 (0.13)	0.18 (0.13)
Management education	−0.01 (0.14)	0.02 (0.13)	−0.01 (0.13)	0.01 (0.14)
Effectiveness at person-oriented behaviors (H1a)		0.25** (0.10)		0.18† (0.12)
Effectiveness at task-oriented behaviors (H1b)			0.24** (0.09)	0.12 (0.14)
R-squared	0.07	0.13	0.11	0.13
F-test	1.34	3.06**	2.05*	2.88**

Notes: $N = 89$; robust standard errors in parentheses.

For independent variables, statistical significance is based on one-tailed tests.

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

3.1. Communicating the need for planned organizational change

Table 2 reports results from analyses of the communicating activities associated with planned organizational change implementation. The results support [Hypothesis 1a](#), which states that leaders who are more effective at person-oriented behaviors are more likely than other leaders to focus on the activities associated with communicating the need for change (see models 2 and 4). [Hypothesis 1b](#), which states that leaders who are more effective at task-oriented behaviors are less likely than other leaders to focus on the activities associated with communicating the need for change, is not supported. The relationship between effectiveness at task-oriented behaviors and focus on communicating activities is significant, but takes the opposite sign in model 3, and is not significant in model 4 (in fact, in robustness checks that we report below, it was significant in model 4 as well under a different specification). Among control variables, we find a significant and positive relationship between managers' likelihood to focus on the activities associated with communicating the need for change and organization size.

3.2. Mobilizing others to implement planned organizational change

Table 3 reports results from analyses of mobilizing others in support of planned organizational change. Our results support [Hypothesis 2b](#), which states that leaders who are more effective at task-oriented behaviors are more likely than other leaders to

Table 3

The relationship of leadership effectiveness to the mobilizing activities of planned organizational change implementation.

Variable (hypothesis)	(1)	(2)	(3)	(4)
Constant	3.62** (0.22)	3.58** (0.22)	3.66** (0.20)	3.89** (0.21)
Creation of a new service	0.07 (0.13)	0.11 (0.15)	0.06 (0.13)	0.07 (0.15)
Organization size	0.01 (0.03)	0.01 (0.03)	0.01 (0.03)	0.01 (0.03)
Tenure in the current position	0.03 (0.03)	0.03 (0.03)	0.02 (0.03)	0.03 (0.03)
National or regional leadership role	0.36* (0.17)	0.38* (0.16)	0.39* (0.16)	0.39* (0.16)
Management education	−0.27* (0.12)	−0.25* (0.12)	−0.28* (0.12)	−0.27** (0.12)
Effectiveness at person-oriented behaviors (H2a)		0.18 (0.14)		0.04 (0.17)
Effectiveness at task-oriented behaviors (H2b)			0.30* (0.15)	0.28† (0.18)
R-squared	0.11	0.14	0.16	0.16
F-test	2.13†	2.27*	2.83**	2.44*

Notes: $N = 89$; robust standard errors in parentheses.

For independent variables, statistical significance is based on one-tailed tests.

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

focus on the activities associated with mobilizing organization members (see models 3 and 4). We did not however find support for **Hypothesis 2a**, which states that leaders who are more effective at person-oriented behaviors are more likely than other leaders to focus on the activities associated with mobilizing organization members (see models 2 and 4). These results suggest that managers who are effective at task-oriented behaviors will put more emphasis on the mobilizing activities involved in planned organizational change implementation, but that there are no significant differences between those who are more effective at person-oriented behaviors and others.

Among control variables, there is a significant relationship between management education and the likelihood that managers will focus on the activities associated with mobilizing organization members. But, contrary to our expectations, management education is negatively related to the likelihood that managers will focus on mobilizing activities (see models 1 to 5). Finally, as expected, we find a significant and positive relationship between the likelihood that managers will focus on the activities associated with mobilizing organization members and the national or regional leadership role variable (see models 1 to 5).

3.3. Evaluating planned organizational change implementation

Results of our analyses of evaluating planned organizational change implementation are reported in **Table 4**. These results strongly support **Hypothesis 3b**, which states that leaders who are more effective at task-oriented behaviors are more likely than other leaders to focus on the activities associated with evaluating planned organizational change implementation (see models 3 and 4). Effectiveness at person-oriented behaviors, although consistently taking the negative sign, as predicted, is not significant in any of the models. Thus, there is no support for **Hypothesis 3a**, which states that leaders who are more effective at person-oriented behaviors are less likely than other leaders to focus on activities associated with planned organizational change implementation (see models 2 and 4). These results suggest that managers who are effective at task-oriented behaviors will put more emphasis on the evaluating activities involved in planned organizational change implementation, but that there are no significant differences between those who are more effective at person-oriented behaviors and others.

Among control variables, tenure in the current position is statistically significant in two models (see models 1 and 2) and only borderline insignificant at the 10% level in the others (see models 3 and 4). Therefore, we can speculate that managers with longer tenure in their positions are more likely than their counterparts to emphasize the activities associated with evaluating planned organizational change implementation. Finally, again as expected, there is a significant and positive relationship between managers' likelihood to focus on the activities associated with evaluating planned organizational change implementation and the national or regional leadership role variable (see models 1 to 4).

3.4. Robustness checks and supplementary analyses

A related question is whether leadership competencies have independent effects on change implementation or they act as complements/substitutes. To address this inquiry, we ran supplementary analyses, including interaction terms between the two leadership competencies for each phase. Below, we report the results of these supplementary regressions (**Table 5**).

The results first show that the interaction term is insignificant on communicating. Hence, it appears that effectiveness in task- and person-oriented behaviors has independent effects on the emphasis put on the communicating activities. Second, the interaction terms are significant on both mobilizing and evaluating, indicating that the competency in one dimension has an

Table 4

The relationship of leadership effectiveness to the evaluating activities of planned organizational change implementation.

Variable (hypothesis)	(1)	(2)	(3)	(4)
Constant	2.43** (0.32)	2.41** (0.31)	2.54** (0.30)	2.63** (0.31)
Creation of a new service	0.05 (0.24)	0.09 (0.26)	0.05 (0.22)	0.03 (0.23)
Organization size	−0.04 (0.04)	−0.04 (0.05)	−0.06 (0.04)	−0.06 (0.04)
Tenure in the current position	0.09* (0.05)	0.09† (0.05)	0.06 (0.04)	0.06 (0.04)
National or regional leadership role	0.88** (0.30)	0.89** (0.30)	0.92** (0.28)	0.90** (0.28)
Management education	0.03 (0.20)	0.07 (0.21)	0.03 (0.19)	0.01 (0.20)
Effectiveness at person-oriented behaviors (H3a)		−0.14 (0.21)		−0.31 (0.25)
Effectiveness at task-oriented behaviors (H3b)			0.66** (0.23)	0.86** (0.28)
R-squared	0.14	0.14	0.22	0.24
F-test	3.33**	3.33**	5.50**	4.72**

Notes: $N = 89$; robust standard errors in parentheses.

For independent variables, statistical significance is based on one-tailed tests.

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

Table 5

Interactions effects examining the emphasis on each of the three activities of planned organizational change implementation.

Variable	Communicating	Mobilizing	Evaluating
Constant	3.67** (0.16)	3.60** (0.20)	2.55** (0.29)
Creation of a new service	0.08 (0.12)	0.06 (0.14)	−0.05 (0.24)
Organization size	0.05* (0.01)	0.00 (0.03)	−0.08† (0.04)
Tenure in the current position	−0.04 (0.03)	0.02 (0.03)	0.06 (0.04)
National or regional leadership role	0.18 (0.13)	0.39* (0.16)	0.90** (0.27)
Management education	0.01 (0.14)	−0.26* (0.12)	0.00 (0.20)
Effectiveness at person-oriented behaviors	0.19† (0.13)	0.08 (0.16)	−0.25 (0.24)
Effectiveness at task-oriented behaviors	0.12 (0.15)	0.38** (0.17)	1.01** (0.26)
Effectiveness at person-oriented behaviors × effectiveness at task-oriented behaviors	0.01 (0.15)	0.39* (0.17)	0.55* (0.33)
R-squared	0.13	0.20	0.27
F-test	2.63**	3.10**	5.93**

Notes: $N = 89$; robust standard errors in parentheses.

For independent variables, statistical significance is based on one-tailed tests.

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$.

influence on how the other dimension is associated with the degree of emphasis put on each of these two sets of activities. Third, both of these interaction terms (that is, on mobilizing and evaluating) are significant *and* positive. This is convergent with the finding of a number of studies (e.g., Bass, 1990) suggesting that leaders who are highly skilled in both person-oriented and task-oriented behaviors are likely to be more effective than other leaders.

A potential concern regarding the robustness of the reported results is related to the observed moderately high correlation among our independent variables (i.e. leadership competencies) and its potential influence on model testing. Yet, some positive correlation among dimensions of leadership is not an artifact of our data and should in fact be expected. As highlighted in a number of studies, shared organizational, historical, and dispositional factors might affect the level and evolution of a wide range of leadership competencies at the same time (e.g., Bartone, Snook, & Tremble, 2002; Bass, 1990; Goleman 2000; Judge, Heller, & Mount, 2002; Parker & Ogilvie, 1996). Judge and his colleagues' (2004) meta-analysis of the showing consideration–initiating structure model is in line with these studies and our data. They report that the correlation between the two leadership dimensions is close to 0.50 in two of the most widely used questionnaires (LBDQ and LBDQ-XII) in a combined sample of over 5000 observations. By means of comparison, note that the correlation coefficient we report is 0.56 (in a sample of 89 observations). Also note that potential multi-collinearity is not a serious concern in our empirical examination, because (1) the correlation is sizable, but not critically high (i.e., over 0.8 in absolute value; Kennedy, 2003); (2) calculated variance inflation factors (VIFs) is less than two for all regression models, much lower than the critical value of ten, indicating no serious multi-collinearity; and (3) hierarchically nested regressions are reported for all dependent variables, leaving all effects visible and open to interpretation by the reader.

To further amplify our confidence in the results, we reran our regressions using 'orthogonal' measures of leadership competencies. More concretely, we ran principal-component factors analysis on leadership competencies and applied orthogonal varimax rotation on the resulting factors. Then, based on varimax rotated factors, we calculated scoring coefficients (assuming regression scoring). We thus forced our measures to be as distinct from each other as possible within the confines of our data. In this empirical exercise, our aim was to see whether the results were robust to this treatment. The result of this analysis shows that 'orthogonal' measures slightly increase model fit, but overall do not affect sign and significance of control variables. The results on the independent variables remain unchanged (with the exception of model 4 on communicating—wherein task-oriented competencies keeps its signs and now remains significant even when entered with person-oriented competencies).

A separate concern with our empirical analysis is related to the fact that we use managers' declarations to measure the emphasis they put on the different change implementation activities. Hence, potential self-report bias (i.e., tendency of respondents to respond in socially desirable ways) is a legitimate concern. Earlier work highlights that an individual's likelihood to give a biased answer can be identified as a function of (i) the sensitivity of construct of interest (e.g. drug-use vs. coffee-consumption at work), (ii) situational pressures to give socially desirable answers (e.g., risk of getting fired and social isolation), and (iii) individuals' disposition to give answers in any particular direction (Donaldson & Grant-Vallone, 2002; Himmelfarb & Lickteig, 1982; Moorman & Podsakoff, 1992; Podsakoff & Organ, 1986; Schwartz, 1999; Spector, 1994; Zerbe & Paulhus, 1987). The first two concerns (sensitivity and situational factors) are not a problem in our study, by its very design. How much emphasis put on a given issue is hardly 'sensitive' and it is not clear what the 'socially desirable' level is. Further mitigating these concerns is the way we administrated the phone survey: direct, one-to-one phone interview with the manager, under strict confidentiality (which guarantees non-release of individual data to third parties, including the members of the focal managers' organization).

But, still, we cannot rule out individual's disposition to give biased answers. While we do not have any solid priors to expect a bias, we conducted further examination. In an attempt to sort out this issue within the confines of our data, we checked for the possible influence of managers' over-confidence. Over-confident managers are likely to experience a self enhancement bias (Atwater, Ostroff, Yammarino, & Fleenor, 1998). As a result, they are more likely to develop a falsely positive sense of accomplishment and thereby to give biased answers. Hence, self-report bias (if there is any) must be, at least partially, captured by the inclusion of this variable in the regressions. To create a measure of over-confidence, we took advantage of the 360° leadership data. We first calculated leadership scores (as unweighted averages of task- and person-oriented skills), based on both the managers' and others' evaluations, and then took the difference between these two scores (i.e., self minus others' evaluation).⁹ When included, this variable (over-confidence) invariably took a positive sign (indicating that over-confident managers are potentially more likely to report more emphasis on each dimension), but its inclusion did not affect the sign and significance of our independent variables in any model.

Finally, in supplemental regression models (not reported here) we included gender, professional background (i.e., physicians, nurses or allied health professionals) and hierarchical position in the organization as additional control variables. These variables (both when added separately and together) were not significant in any model, nor did they affect the sign or significance of any variables of interest. Further, we checked for alternative measures of organization size (large vs. small organization dummy), tenure (tenure in management position and tenure in the organization), and educational background (highest management degree achieved). It thus appears that our results are not an artifact of the way we measured the variables in our study.

4. Discussion and conclusion

In this paper, we examined the relationship between two managers' leadership competencies and the likelihood that they would focus on three main activities associated with implementing planned organizational change. Supporting our expectations, the results suggest significant, yet different, relationships between effectiveness at task-oriented and person-oriented leadership behaviors and the three change implementation activities of communicating, mobilizing, and evaluating.

4.1. Relationship between leadership competencies and change implementation activities

This study yields two important findings of note, (1) leaders who are more effective at task-oriented behaviors are more likely to focus on both the mobilizing and evaluating activities associated with planned organizational change implementation (than other leaders), and (2) leaders who are more effective at person-oriented behaviors are more likely to focus on the communicating activities of planned organizational change implementation (than other leaders).

Regarding the communicating activities of planned organizational change implementation, our theory posited that managers whose leadership strengths emphasize person-oriented behaviors would place more emphasis on communicating the need for organizational change, whereas leaders whose strengths lay in task-oriented behaviors would place less emphasis on this implementation activity than other leaders. Although our analyses provided empirical support for our hypothesis regarding person-oriented leadership, we found no support for our hypothesis regarding task-oriented leadership. The results even offered partial support for the opposite prediction according to which task-oriented leaders would emphasize communicating activities. One explanation for this finding might relate to the notion that leaders who are effective at task-oriented behaviors are aware that they need to share their visions with others, keep members' attention on goals, and guide them through the implementation of new organizational designs (Hogan, Curphy, & Hogan, 1994). Thus, leaders who are effective at task-oriented behaviors might need to interact with peers and followers to initiate an intended new structure. Furthermore, we found that managers implementing projects in large organizations were more likely to emphasize the communicating activities associated with planned organizational change projects. This supported our expectation that larger organizations might both have more standard operating procedures and resources devoted to change programs (Huber et al., 1993) and be more resistant to change (e.g., Blau & Schoenherr, 1971; Child, 2005; Hannan & Freeman, 1984; Kimberly, 1976).

As expected, task-oriented leaders were found to emphasize the mobilizing activities that are associated with the implementation process for planned organizational change. Surprisingly, person-oriented leaders were not found to do so. This finding might be due to the fact that mobilizing is first and foremost a political process that entails building a coalition to support the change project (Kotter, 1985, 1995). Such a coalition must include the different groups of organizational stakeholders, who are involved in and/or affected by the change project, not only the ones who belong to the change agent's team. Although person-oriented leaders are good at inspiring and mobilizing the members of their own teams, task-oriented leaders are able to mobilize both their team members and other stakeholders by redesigning organizational processes and systems according to the change. Furthermore, the finding that leaders in our sample with advanced management education unexpectedly placed less emphasis on the mobilizing tasks of change implementation provides some support for growing concern over the limitations of advanced management education and its impact on managers' effectiveness in organizational settings (Boyatzis, Stubbs, & Taylor, 2002; Mintzberg, 2004; Porter & McKibbin, 1988; Shipper, 1999).

⁹ Based on this measure, we also created a dummy variable which is equal to one if the difference is more than one standard deviation, and zero otherwise. This is a more crude but also more strict measure of over-confidence. Results were insensitive to use of one measure or another.

With respect to the evaluating activities of planned organizational change implementation, our results support our predictions that leaders who are more effective at task-oriented behaviors focus more than other leaders on this set of activities. Because of their attention to structure as well as performance objectives (Bass, 1990), task-oriented leaders are more likely to consider evaluation to be necessary to the analysis of achievements. Leaders who were more effective at person-oriented behaviors placed neither more nor less emphasis than other leaders on evaluation.

Finally, as expected, there is a positive and significant relationship between managers' likelihood to focus on both the mobilizing and evaluating activities associated with planned organizational change implementation and the national or regional leadership role variable. This is a consequence of these managers being aware of the challenges of implementing change in the NHS and able to leverage all available resources both within and outside their organizations to implement change.

4.2. Contributions

This study contributes to the leadership literature by providing empirical evidence of the role of different leadership competencies in different activities involved in planned organizational change implementation. Our findings show that leadership competencies might differentially influence emphasis on the three key activities involved in planned organizational change, suggesting that when dealing with the role of leadership in change implementation, change should be considered as a complex multi-dimensional task composed of different activities.

This study also makes two main contributions to the organizational change literature. First, it develops understanding of the process of change (Pettigrew, Woodman, & Cameron, 2001) by identifying some new correlates (namely, leadership competencies) of key activities for implementing planned organizational change. By showing different activities to have different correlates in terms of leadership competencies, our results support the notion of organizational change as a complex, dynamic process (Armenakis & Bedeian, 1999; Van de Ven & Poole, 1995).

Second, this study contributes to the stream of research about organizational change by linking the work of organizational theorists and more practice-oriented scholars. The field of research about change has been hampered by the schism between theory and practice (Burke & Litwin, 1992; Durand, 2006; Woodman, 1989), and although many (e.g., Beer & Eisenstat, 1996; Pettigrew et al., 2001; Woodman, 1989, 1993) have called for studies to try to resolve this dichotomy, organizational theorists and practice-oriented scholars have continued to work in rather isolated worlds, examining different aspects of organizational change. Organizational theorists have shown that achieving organization-level change cannot be reduced to a linear process (e.g., Amis, Slack, & Hinings, 2004; Ferlie, Fitzgerald, Wood, & Hawkins, 2005; Hinings & Greenwood, 1988; Kanter, 1984; Pettigrew, Ferlie, & McKee, 1992). It is rather a complex and, at times, chaotic process of delays and oscillations that often yields unintended outcomes (Armenakis & Bedeian, 1999; Van de Ven & Poole, 1995). On the other hand, practice-oriented scholars (e.g., Galpin, 1996; Judson, 1991; Kotter, 1995; Lewin, 1947; Rogers, 1962) have developed normative process models to guide managers' implementation efforts and reduce the uncertainty of the change process.

In this study, although we used normative process models of change as a foundation for our empirical work, we relied on the work of organizational theorists to challenge two of the fundamental assumptions of those models, namely, the linearity of the process of change, and managers' ability to engage in the different activities involved in the implementation of change. Instead of assuming a linear process and focusing on phases of planned organizational change implementation, we focused on different activities associated with the process of planned organizational change implementation. We then examined whether managers' leadership competencies influenced the likelihood that they would emphasize each of these activities. Some practice-oriented scholars (e.g., Beer & Eisenstat, 1996) have acknowledged that one limitation of normative process models of change is that they do not consider whether managers possess the skills needed to engage in the activities involved in planned organizational change implementation. Our study addresses this limitation.

4.3. Limitations and future research

Several limitations of this study deserve elaboration and point to future research directions. First and foremost, our analysis must be considered exploratory given the small, non-random sample of managers in the NHS. This poses challenges to the generalizability of our results. Our setting, the NHS, is a large, public sector organization that was undergoing massive changes during our study period. Although this makes the NHS an ideal setting for our study, it also raises question about the generalizability of our results to other contexts (e.g., the private sector or more stable industries).

Nor can we fully discount the possibility of sampling bias, since our study group consisted of self-selected individuals who applied, and were then selected for, advanced leadership executive training. One might also ask whether the findings obtained for mostly middle managers in our study would be equally likely for managers at other levels of organizations. To address these concerns will require comparisons across contexts and probabilistic samples that will enable researchers to better account for the potential interactive effects of leadership skills and contextual factors on the way leaders manage the key activities associated with planned organizational change implementation.

Another limitation is that we treat managers' leadership behaviors as fixed during our study. Although our analysis treated leadership behavior as the major independent variable, it must be acknowledged that leaders themselves (especially effective ones) adapt and change in response to the requirements of a given implementation activity. Leaders might have unobserved attributes that predispose them to exhibit particular leadership characteristics, and influence which of the activities of planned organizational change implementation they choose to emphasize. To the extent that this occurs, our results would not reflect the

true causal effect of leadership characteristics on attention to specific activities. Dealing with such endogeneity issues in cross-sectional studies is always challenging. These concerns are mitigated in this study by the fact that our leadership data were collected prior to the change projects and using a different instrument. The fact that leadership data were collected prior to the executive education program does not, however, enable us to control for the possible influence of this experience on participants' leadership competencies. Further work, either with instrumental variables or with alternative study designs that approach endogeneity in other ways (e.g., analysis of changes over time), could help clarify these issues.

While the choice of both the leadership and change models used in this study was justified by theoretical considerations that we detailed early on in the paper, it might be interesting to replicate this study using different leadership and/or change models. On leadership competencies, it would also be interesting to examine the relationship between other leadership competencies and change agents' likelihood to emphasize different activities involved in the planned organizational change implementation process. In particular, it would be interesting to explore the influence of transformational leadership—including individualized consideration, intellectual stimulation, idealized influence and inspirational motivation (Bass & Avolio, 1990)—and/or charismatic leadership, which have already been shown to influence change initiatives in general and the communicating activities involved in the change process in particular (Kark & Van Dijk, 2007). A number of measurement instruments, such as the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1990; Howell & Avolio, 1993), could be used to do so.¹⁰ Similarly, although the choice of the communicating–mobilizing–evaluating model was based on a careful literature review, we recognize that it does not do complete justice to the complexity of the change process that involves a multitude of activities. In future research, it might be interesting to use change models comprising more than three sets of activities (e.g., Beer, Eisenstat, & Spector, 1990; Kotter, 1995) and to analyze the relationship between leadership competencies and these different sets of activities.

Separately, it would be interesting to know more about the strategies leaders with different leadership competencies use to execute each of the key implementation activities. Now that we know more about the relationship between individuals' leadership competencies and the likelihood that they will emphasize particular activities associated with planned organizational change implementation, we might inquire into the relationship between the degree of emphasis change agents accord the different change implementation activities and the outcome of the change process. The normative process models of change (Galpin, 1996; Judson, 1991; Kotter, 1995; Lewin, 1947; Rogers, 1962) are based on the assumption that leaders must get involved in all the change implementation activities to successfully implement change, and that efforts to bypass some of them are detrimental to the progress of change (Armenakis & Bedeian, 1999). This assumption needs to be questioned. Do leaders need to emphasize all change implementation activities to successfully implement change? Are the leaders who do so the most successful? Answers to these questions are likely to vary depending on the type of change being considered and the type of organization in which change is implemented. There is thus a need for studies examining the influence of emphasis on change activities on project implementation success and the extent to which such emphasis mediates the link between leadership competencies and the project implementation success.

We would like to also note that our definition (“measures leaders employ to monitor and assess the impact of implementation effort and institutionalize change”) and operationalization of evaluating focused on formal systems of measurement. While most studies (e.g., Burke & Litwin, 1992; Ford & Greer, 2005; Galpin, 1996; Kotter, 1995; Simons, 1995) that examine the evaluating activities involved in change implementation emphasize formal feedback systems (corresponding to formal systems of measurement), evaluating might also involve less formal forms of evaluation—such as one-on-one discussions with employees (Tichy, 1983; Zand & Sorensen, 1975). Future research should explore the influence that different leadership competencies have on both types of evaluating activities (formal as well as more informal ones).

Finally, our finding that their mix of leadership competencies might influence the amount of emphasis leaders put on each of the three key activities associated with the implementation of planned organizational change might have important managerial implications, which require further investigation. First, one can speculate that, in certain situations, using a team-based approach that takes account of managers' competencies related to leading change efforts might be a good strategy. In particular, in the absence of leaders who are effective at both task-oriented and person-oriented behaviors, employing multiple change leaders with complementary competencies might be an effective way to ensure that all aspects of the implementation process are addressed. Managers might be chosen, for example, based on the appropriateness of their competencies to the particular activities of the planned change implementation in which the organization is involved or that require the most attention. Different types of change projects or different change environments might require that one activity be emphasized over another. Using a team-based approach to bring complementary competencies to bear on leading change efforts might inform discussion about how leaders can divide tasks and share roles in leading change in organizations more generally (Day, Gronn, & Salas, 2004, 2006; Denis, Lamothe, & Langley, 2001; Gronn, 1999, 2002; House & Aditya, 1997; Miles & Watkins, 2007). Such team-based approach might, however, be complicated to implement not only because of the challenges associated with team leadership (Gronn, 2002; Roberts & Stiles, 1999) but also because of the non-linear nature of the change process. Alternatively, organizations might anticipate and adequately design other support interventions to compensate for a change leader's potential under-emphasis or over-emphasis of some change implementation activities. For example, specific leadership development programs such as in-house and outsourced

¹⁰ In parallel, cross-validation of the results with alternative survey instruments will be informative. Although the GLII (Kets de Vries, 2002) was an appropriate tool to use to capture effectiveness at task-oriented and person-oriented behavior, it would be interesting to test our model using other established measurement instruments such as the Leader Behavior Description Questionnaire (LBDQ), the Leader Behavior Description Questionnaire Form XII (LBDQ-XII), or the Leader Opinion Questionnaire (Judge, Thoresen, Pucik, & Welbourne, 2004) to measure effectiveness at task-oriented and person-oriented behaviors.

educational programs, rotation systems, and training initiatives might be used to increase managers' awareness of the importance of activities they might be disposed to under- or over-emphasize.

To conclude, this study explores the relationship between leadership competencies and the way leaders manage the different activities of planned organizational change implementation. Our finding that their mix of leadership competencies might lead managers to differentially emphasize the key activities of planned organizational change implementation fuels growing appreciation that organizational change is a nuanced and highly differentiated process. An important question, of course, is what are the consequences of attending selectively to the three key activities of planned organizational change implementation? Is it suggested, for example, that the change will not be fully institutionalized, that the process will be more protracted, or that outcomes will be other than the intended outcomes? All of these questions merit further exploration.

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References

- Amis, J., Slack, T., & Hinings, C. R. (2004). The pace, sequence, and linearity of radical change. *Academy of Management Journal*, 47(1), 15–39.
- Armenakis, A., & Bedeian, A. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management*, 25(3), 293–315.
- Atwater, L., Ostroff, C., Yammarino, F., & Fleener, J. (1998). Self-other agreement, does it really matter? *Personnel Psychology*, 51, 577–598.
- Atwater, L., & Waldman, D. (1998). 360-degree feedback and leadership development. *Leadership Quarterly*, 9(4), 423–427.
- Bales, R. F. (1958). Task roles and social roles in problem-solving groups. In E. E. Maccoby, T. M. Newcomb, & E. L. Hartley (Eds.), *Social psychology* (pp. 437–477). 3rd ed. New York: Holt, Rinehart & Winston.
- Bartone, P. T., Snook, S. A., & Tremble, T. R. (2002). Cognitive and personality predictors of leader performance in West Point cadets. *Military Psychology*, 14, 321–338.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership*. New York: Free Press.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9–32.
- Bass, B. M., & Avolio, B. J. (1990). *Manual for the multifactor leadership questionnaire*. Palo Alto, CA: Consulting Psychologists Press.
- Beckhard, R., & Harris, R. T. (1977). *Organizational transitions: Managing complex change*. Reading, MA: Addison-Wesley.
- Beer, M. (1980). *Organization change and development: A systems view*. Santa Monica, CA: Goodyear.
- Beer, M., & Eisenstat, R. A. (1996). Developing an organization capable of implementing strategy and learning. *Human Relations*, 49(5), 597–619.
- Beer, M., Eisenstat, R. A., & Spector, B. (1990). *The critical path to corporate renewal*. Boston, MA: Harvard Business School Press.
- Beer, M., & Nohria, N. (2000). *Breaking the code of change*. Boston: Harvard Business School Press.
- Berson, Y., & Avolio, B. (2004). Transformational leadership and the dissemination of organizational goals: A case study of a telecommunication firm. *Leadership Quarterly*, 15, 625–646.
- Blau, P. M., & Scott, W. R. (1962). *Formal organizations*. San Francisco, CA: Chandler.
- Blau, P. M., & Shoenherr, R. (1971). *The structure of organizations*. New York: Basic Books.
- Bommer, W. H., Rich, G. A., & Rubin, R. S. (2005). Changing attitudes about change: Longitudinal effects of transformational leader behavior on employee cynicism about organizational change. *Journal of Organizational Behavior*, 26, 733–753.
- Bourne, L., & Walker, D. (2005). Visualizing and mapping stakeholder influence. *Management Decision*, 43(5), 649–660.
- Boyatzis, R., Stubbs, E., & Taylor, S. (2002). Learning cognitive and emotional intelligence competencies. *Academy of Management Learning and Education*, 1(2), 150–162.
- Burke, W., & Litvin, G. (1992). A causal model of organizational performance and change. *Journal of Management*, 18, 523–545.
- Casimir, G. (2001). Combinative aspects of leadership style. The ordering and temporal spacing of leadership behaviors. *Leadership Quarterly*, 12(2), 245–278.
- Chemers, M. M. (2001). Leadership effectiveness: An integrative review. In M. A. Hogg, & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 376–399). Oxford, UK: Blackwell Publishing.
- Child, J. (2005). *Organization*. Oxford: Blackwell Publishing.
- Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations*. Thousand Oaks, CA: Sage.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *Leadership Quarterly*, 15, 857–880.
- Day, D. V., Gronn, P., & Salas, E. (2006). Leadership in team-based organizations: On the threshold of a new era. *Leadership Quarterly*, 17, 211–216.
- Denis, J., Lamothe, L., & Langley, A. (2001). The dynamics of collective leadership and strategic change in pluralistic organizations. *Academy of Management Journal*, 44(4), 809–837.
- Department of Health (1997). *The new NHS – Modern, dependable*. London: HMSO.
- Department of Health. (1999). *Agenda for change: Modernizing the NHS pay system—Joint framework of principles and agreed statement on the way forward*. Crown Copyright.
- Department of Health. (2006). *About the NHS*. Available at: www.nhs.uk/England/aboutTheNHS. Accessed 1 November 2006.
- Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, 17(2), 245–262.
- Durand, R. (2006). *Organizational evolution and strategic management*. London: Sage publications.
- Egri, C. P., & Herman, S. (2000). Leadership in the North American environmental sector: Values, leadership styles and contexts of environmental leaders and their organizations. *Academy of Management Journal*, 43, 571–604.
- Eisenbach, R., Watson, K., & Pillai, R. (1999). Transformational leadership in the context of organizational change. *Journal of Organizational Change Management*, 12(2), 80–88.
- Ferlie, E., & Shortell, S. M. (2001). Improving the quality of health care in the United Kingdom and the United States: A framework for change. *The Milbank Quarterly*, 79(2), 281–315.
- Ferlie, E., Fitzgerald, L., Wood, M., & Hawkins, C. (2005). The non spread of innovations: The mediating role of professionals. *Academy of Management Journal*, 48(1), 117–134.
- Fiol, C. M., Harris, D., & House, R. (1999). Charismatic leadership: Strategies for effecting social change. *Leadership Quarterly*, 10(3), 449–482.
- Fleiss, J. L. (1981). *Statistical methods for rates and proportions*. New York: Wiley.
- Ford, M., & Greer, B. (2005). The relationship between management control system usage and planned change achievement: An exploratory study. *Journal of Change Management*, 5(1), 29–46.
- Galpin, T. (1996). *The human side of change: A practical guide to organization redesign*. San Francisco, CA: Jossey-Bass.
- Gerstner, C., & Day, D. (1997). Meta-analytic review of leader member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827–844.
- Goleman, D. (1998). *Working with emotional intelligence*. London: Bloomsbury.

- Goleman, D. (2000). Leadership that gets results. *Harvard Business Review*, 78–90 March–April.
- Graen, G., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years – Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6(2), 219–247.
- Greenwood, R., & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and the new institutionalism. *Academy of Management Review*, 21(4), 1022–1054.
- Gronn, P. (1999). Substituting for leadership: The neglected role of the leadership couple. *Leadership Quarterly*, 10(1), 41–62.
- Gronn, P. (2002). Distributed leadership as a unit of analysis. *Leadership Quarterly*, 13, 423–451.
- Hambrick, D. C., & Fukutomi, G. S. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16, 719–742.
- Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review*, 49, 149–164.
- Harrison, S., & Wood, B. (1999). Designing health service organization in the UK 1968–1998: From blueprint to bright idea and 'manipulated emergence'. *Public Administration*, 77(4), 751–768.
- Higgs, M., & Rowland, D. (2000). Building change leadership capability: 'The quest for change competence'. *Journal of Change Management*, 1(2), 116–130.
- Higgs, M., & Rowland, D. (2005). All changes great and small: Exploring approaches to change and its leadership. *Journal of Change Management*, 5(2), 121–151.
- Himmelfarb, S., & Lickteig, C. (1982). Social desirability and the randomized response technique. *Journal of Personality and Social Psychology*, 43(4), 710–717.
- Hinings, C. R., & Greenwood, R. (1988). *The dynamics of strategic change*. Oxford, England: Blackwell.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist*, 49(6), 493–504.
- House, R., & Aditya, R. (1997). The social scientific study of leadership: Quo vadis? *Journal of Management*, 23(3), 409–473.
- House, R., & Baetz, M. L. (1979). Leadership: Some empirical generalizations and new research directions. *Research in Organizational Behavior*, 1, 341–423.
- House, R., Spangler, W., & Woychke, J. (1991). Personality and charisma in the US presidency: A psychological theory of leader effectiveness. *Administrative Science Quarterly*, 36(3), 364–396.
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, loss of control, and support for innovation: Key predictors of consolidated business unit performance. *Journal of Applied Psychology*, 78, 891–902.
- Howell, J. M., & Higgins, C. A. (1990). Champions of technological innovation. *Administrative Science Quarterly*, 35, 317–341.
- Huber, P., Sutcliffe, K., Miller, C. C., Glick, W. H., Huber, P., Sutcliffe, K., Miller, C. C., & Glick, W. H. (1993). Understanding and predicting organizational change. In P. Huber, W. H. Glick, P. Huber, & W. H. Glick (Eds.), *Organizational change and redesign* (pp. 215–265). Oxford University Press.
- Huy, Q. (1999). Emotional capability, emotional intelligence, and radical change. *Academy of Management Review*, 24(2), 325–345.
- Huy, Q. (2002). Emotional balancing of organizational continuity and change: The contribution of middle managers. *Administrative Science Quarterly*, 47, 31–69.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87, 530–541.
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, 89, 36–51.
- Judson, A. (1991). *Changing behaviors in organizations: Minimizing change resistance*. Cambridge, MA: Blackwell.
- Kanter, R. M. (1983). *The change masters*. New York: Simon & Schuster.
- Kanter, R. M. (1984). Managing transitions in organizational culture: The case of participative management at Honeywell. In J. R. Kimberly, & R. E. Quinn (Eds.), *Managing organizational transitions* (pp. 195–217). Homewood, IL: Irwin.
- Kanter, R., Stein, B., & Jick, T. (1992). *The challenge of organizational change: How companies experience it and leaders guide it*. New York: Free Press.
- Kark, R., & van Dijk, D. (2007). Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review*, 32(2), 500–528.
- Keller, R. T. (2006). Transformational leadership, initiating structure, and substitutes for leadership: A longitudinal study of research and development project team performance. *Journal of Applied Psychology*, 91(1), 202–210.
- Kennedy, P. (2003). *A guide to econometrics*, 5th ed. Cambridge, MA: MIT Press.
- Kets de Vries, M. (2002). *Global Leadership Life inventory: Interpreting the Twelve Dimensions of Global Leadership*. INSEAD publication.
- Kets de Vries, M., Vrignaud, P., & Florent-Treacy, E. (2004). The Global Leadership Life Inventory: Development and psychometric properties of a 360-degree feedback instrument. *International Journal of Human Resource Management*, 15(3), 475–492.
- Kimberly, J. R. (1976). Organizational size and the structuralist perspective: A review, critique and proposal. *Administrative Science Quarterly*, 21, 571–597.
- Kotter, J. (1985). *Power and influence*. New York: Free Press.
- Kotter, J. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, 73(2), 59–67.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 671–679.
- Larsson, R. (1993). Case survey methodology: Quantitative analysis of patterns across case studies. *Academy of Management Journal*, 36(6), 1515–1546.
- Levy, P., & Williams, J. (2004). The social context of performance appraisal: A review and framework for the future. *Journal of Management*, 30(6), 881–905.
- Lewin, K. (1947). Frontiers in group dynamics. *Human Relations*, 1, 5–41.
- Lippitt, R., Watson, J., & Westley, B. (1958). *The dynamics of planned change*. New York: Harcourt Bruce.
- McClelland, D. C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.
- McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill.
- Miles, S. A., & Watkins, M. D. (2007). The leadership team: Complementary strengths or conflicting agendas? *Harvard Business Review*, 85, 90–98.
- Mintzberg, H. (2004). *Managers not MBAs*. San Francisco: Berrett Koehler.
- Misumi, J. (1985). *The behavioral science of leadership. An interdisciplinary Japanese research program*. Ann Arbor, MI: University of Michigan Press.
- Moorman, R. H., & Podsakoff, P. M. (1992). A meta-analytic review and empirical test of the potential confounding effects of social desirability response sets in organizational behavior research. *Journal of Occupational and Organizational Psychology*, 65, 131–149.
- Nadler, D. A. (1982). Managing transitions to uncertain future states. *Organizational Dynamics*, 11, 37–45.
- Nadler, D. A., & Tushman, M. L. (1989). Organizational frame bending: Principles for managing reorientation. *Academy of Management Executive*, 3, 194–204.
- Nadler, D. A., & Tushman, M. L. (1990). Beyond the charismatic leader: Leadership and organizational change. *California Management Review*, 32(2), 77–97.
- Nadler, D. A., & Tushman, M. L. (1999). The organization of the future: Strategic imperatives and core competencies for the 21st century. *Organizational Dynamics*, 28(1), 45–60.
- Nunnally, J. M. (1978). *Psychometric theory*. New York: McGraw Hill.
- Olson, D. A., & Tetrick, L. E. (1988). Organizational restructuring: The impact of role perceptions, work relationships and satisfaction. *Group and Organization Studies*, 13(3), 374–389.
- Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology*, 88(4), 680–693.
- Parker, P. S., & Ogilvie, D. T. (1996). Gender, culture, and leadership: Toward a culturally distinct model of African-American women executives' leadership strategies. *Leadership Quarterly*, 7, 189–214.
- Peckham, S., & Exworthy, M. (2003). *Primary care in the UK: Policy, organization and management*. New York: Palgrave MacMillan.
- Pettigrew, A. M., Ferlie, E., & McKee, L. (1992). *Shaping strategic change: Making change in large organizations – The case of the National Health Service*. London: Sage.
- Pettigrew, A. M., Woodman, R., & Cameron, K. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management Journal*, 44(4), 697–713.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531–544.
- Porter, L. W., & McKibbin, L. E. (1988). *Management education and development: Drift or thrust into the 21st century?* New York: McGraw-Hill.
- Roberts, J., & Stiles, P. (1999). The relationships between chairmen and chief executives: Competitive or complementary roles? *Long Range Planning*, 32(1), 36–48.
- Rogers, E. M. (1962). *Diffusion of innovations*. New York: Free Press.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185–211.
- Schwartz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, 54, 93–105.
- Seltzer, J., & Bass, B. M. (1990). Transformational leadership: Beyond initiation and consideration. *Journal of Management*, 16(4), 693–704.

- Shipper, F. (1999). Comparison of managerial skills of middle managers with MBAs, other master's degrees and bachelor's degrees ten years after the Porter and McKibbins report. *Journal of Managerial Psychology*, 14(1/2), 150–164.
- Simons, R. (1995). *Levers of control*. Cambridge, MA: Harvard Business School Press.
- Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior*, 15, 385–392.
- Stodgill, R., & Coons, A. E. (1957). *Leader behavior: Its description and measurement*. Columbus: Ohio University, Bureau of Business Research.
- Struckman, C. K., & Yammarino, F. J. (2003). Managing through multiple change activities: A solution to the enigma of the 21st century. *Organizational Dynamics*, 32(3), 234–246.
- Tichy, N. M. (1983). *Managing strategic change*. New York: Wiley.
- Tichy, N. M., & Devanna, M. A. (1986). *The transformation leader*. New York: John Wiley.
- Tushman, M. L., & O'Reilly, C. (1997a). Managerial problem solving: A congruence approach. In M. L. Tushman, & P. Anderson (Eds.), *Managing strategic innovation and change: A collection of readings* (pp. 194–205). Oxford: Oxford University Press.
- Tushman, M. L., & O'Reilly, C. (1997b). *Winning through innovation: A practical guide to leading organizational change and renewal*. Cambridge, MA: Harvard Business School Press.
- Van de Ven, A. H., Angle, H. L., & Poole, M. (1989). *Research on the management of innovation: The Minnesota studies*. Oxford University Press.
- Van de Ven, A., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Journal*, 20(3), 510–540.
- Van Knippenberg, D., & Hogg, M. A. (2003). A social identity model of leadership effectiveness in organizations. *Research in Organizational Behavior*, 25, 243–295.
- Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), 222–240.
- Vroom, V. H. (1964). *Work and motivation*. New York: John Wiley & Sons.
- Waldman, D. A., Javidan, M., & Varella, P. (2004). Charismatic leadership at the strategic level: A new application of upper echelons theory. *Leadership Quarterly*, 15(3), 355–380.
- Williams, R. L. (2000). A note on robust variance estimation for cluster-correlated data. *Biometrics*, 56, 645–646.
- Woodman, R. W. (1989). Organizational change and development: New arenas for inquiry and action. *Journal of Management*, 15(2), 205–228.
- Woodman, R. W. (1993). Observations on the field of organizational change and development from the lunatic fringe. *Organizational Development Journal*, 11(2), 71–75.
- Yukl, G. A. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *Leadership Quarterly*, 10(2), 285–305.
- Yukl, G. A. (2006). *Leadership in organizations*, 6th ed. Upper Saddle River, NJ: Prentice-Hall.
- Zand, D. E., & Sorensen, R. E. (1975). Theory of change and the effective use of management science. *Administrative Science Quarterly*, 20(4), 532–545.
- Zerbe, W. J., & Paulhus, D. L. (1987). Socially desirable responding in organizational behavior: A reconception. *Academy of Management Review*, 12, 250–254.