ARTICLES

Effective Leadership Behavior: What We Know and What Questions Need More Attention

by Gary Yukl

Executive Overview

Extensive research on leadership behavior during the past half century has yielded many different behavior taxonomies and a lack of clear results about effective behaviors. One purpose of this article is to describe what has been learned about effective leadership behavior in organizations. A hierarchical taxonomy with four meta-categories and 15 specific component behaviors was used to interpret results in the diverse and extensive literature and to identify conditions that influence the effectiveness of these behaviors. Limitations and potential extensions of the hierarchical taxonomy are discussed, and suggestions for improving research on effective leadership behavior are provided.

The essence of leadership in organizations is influencing and facilitating individual and collective efforts to accomplish shared objectives. Leaders can improve the performance of a team or organization by influencing the processes that determine performance. An important objective in much of the leadership research has been to identify aspects of behavior that explain leader influence on the performance of a team, work unit, or organization. To be highly useful for designing research and formulating theories, leader behavior categories should be observable, distinct, measurable, and relevant for many types of leaders, and taxonomies of leader behaviors should be comprehensive but parsimonious.

Thousands of studies on leader behavior and its effects have been conducted over the past half century, but the bewildering variety of behavior constructs used for this research makes it difficult to compare and integrate the findings (Bass, 2008; Yukl, in press). The behavior taxonomies guiding past research have substantial differences in the number and type of behaviors they include. Some taxonomies have only a few broadly defined behavior meta-categories, whereas other taxonomies have a larger number of narrowly defined behavior categories. Some taxonomies are intended to cover the full range of leader behaviors, whereas others include only the behaviors identified in a particular leadership theory. Some taxonomies describe leader behaviors used to motivate individual subordinates, whereas other taxonomies describe behaviors used to lead groups or organizations. Some taxonomies include other types of constructs along with behaviors, such as leader roles, skills, and values. Additional confusion is created by lack of consistency in the use of category labels. Sometimes different terms are used to refer to the same type of behavior, and sometimes the same term is used for different forms of behavior.

The primary purpose of this article is to review what has been learned about effective leadership behavior from research conducted over more than half a century. To integrate results from a large number of studies with many different ways of

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classifying and measuring leadership behavior, it was first necessary to develop a comprehensive behavior taxonomy. The article begins by describing how decades of behavior research provides the basis for a hierarchical taxonomy with four broad meta-categories and 15 specific component behaviors. Next is a brief overview of research on the effects of widely used behavior categories, followed by a more detailed description of what has been learned about the relevance of each specific behavior in the hierarchical taxonomy. Several conditions that influence the effects of the behaviors are described, and the need for more research on them is explained. The article ends with a summary and suggestions for improving future research.

Research on Behavior Taxonomies

The method used most often to identify categories of leadership behavior is factor analysis of behavior description questionnaires. This method is most useful when clear, relevant items are selected for the initial questionnaire and respondents are able to remember the leader's past behavior and provide accurate ratings. Unfortunately, the selection of behavior items for a questionnaire is usually influenced by preconceptions about effective leadership or the desire to develop a measure of key behaviors in a leadership theory. The sample of respondents is seldom systematic, and the accuracy of most behavior questionnaires is seriously reduced by respondent biases and attributions. Finally, the basic assumptions of factor analysis (high correlation among examples from the same category) do not apply very well when a behavior category includes several alternative ways to achieve the same objective and a leader needs to use only one or two of them. The limitations of this method may help to explain the substantial differences among leader behavior taxonomies.

Another common method for identifying distinct behavior categories is to have subject matter experts sort behavior descriptions into categories based on similarity of purpose and content, but this method also has limitations. The selection of categories may be biased by prior assumptions and implicit leadership theories, and disagreements among subject matter experts are not easily resolved. A behavior taxonomy is more likely to be useful if it is based on multiple methods and is supported by research on the antecedents and outcomes of the behaviors.

From 1950 to 1980 most of the research on leadership behavior was focused on explaining how leaders influence the attitudes and performance of individual subordinates. In the early survey research, factor analysis of leadership behavior questionnaires found support for two broadly defined behavior categories involving task-oriented and relations-oriented behaviors. Different labels were used for these meta-categories, including initiating structure and consideration (Fleishman, 1953; Halpin & Winer, 1957), production-centered and employee-centered leadership (Likert, 1961), instrumental and supportive leadership (House, 1971), and performance and maintenance behavior (Misumi & Peterson, 1985). The specific behaviors defining the two meta-categories varied somewhat from one taxonomy to another, and some relevant behaviors were not adequately represented in any of these taxonomies. Finding the two meta-categories was a good start, but researchers failed to conduct systematic follow-up research to build on the initial discoveries.

Leadership behaviors directly concerned with encouraging and facilitating change did not get much attention in the early leadership research. Change behaviors are more relevant for executives than for the low-level leaders studied in much of the early research, and they are more important for the dynamic, uncertain environments that have become so common for organizations in recent decades. In the 1980s one or two specific change-oriented behaviors were included in questionnaires used to measure charismatic and transformational leadership, but leading change was still not explicitly recognized as a distinct meta-category. Researchers in Sweden and the United States (Ekvall & Arvonen, 1991; Yukl, 1999; Yukl, Gordon, & Taber, 2002) eventually found evidence for the construct validity of a leading-change meta-category. The classification of change-oriented behavior as a distinct and

meaningful meta-category provided important new insights about effective leadership.

In most of the early research on leadership behavior the focus was on describing how leaders influence subordinates and internal activities in the work unit. Leader behavior descriptions were usually obtained from subordinates who had little opportunity to observe their leaders interacting with people outside the work unit. Thus, it is not surprising that few leadership studies examined external ("boundary-spanning") behavior, and only a few leader behavior taxonomies included any external behaviors (e.g., Stogdill, Goode, & Day, 1962). However, in the late 1970s and early 1980s, descriptive research on managers found that it is important to influence bosses, peers, and outsiders as well as subordinates (Kaplan, 1984; Kotter, 1982; Mintzberg, 1973), and later research on teams found that boundary-spanning behavior is important for effective team performance (e.g., Ancona & Caldwell, 1992; Joshi, Pandey, & Han, 2009; Marrone, 2010). The importance and uniqueness of external leadership behavior provides justification for classifying it as a separate meta-category.

Hierarchical Behavior Taxonomy

The hierarchical taxonomy proposed in this article describes leadership behaviors used to influence the performance of a team, work unit, or organization. The four meta-categories and their component behaviors are shown in Table 1. Each meta-category has a different primary objective, but the objectives all involve determinants of performance. For task-oriented behavior the primary objective is to accomplish work in an efficient and reliable way. For relations-oriented behavior the primary objective is to increase the quality of human resources and relations, which is sometimes called "human capital." For change-oriented behavior the primary objectives are to increase innovation, collective learning, and adaptation to the external environment. For external leadership behavior the primary objectives are to acquire necessary information and resources, and to promote and defend the interests of the team or organization. In addition to these differences in primary objectives, each meta-category includes unique specific behaviors for achieving the objectives. The relevance of each component behavior depends on aspects of the situation, and the effect is not always positive for the primary objective or for other outcomes.

Table 1
Hierarchical Taxonomy of Leadership Behaviors

Task-oriented	Clarifying
	Planning
	Monitoring operations
	Problem solving
Relations-oriented	Supporting
	Developing
	Recognizing
	Empowering
Change-oriented	Advocating change
	Envisioning change
	Encouraging innovation
	Facilitating collective learning
External	Networking
	External monitoring
	Representing

The proposed taxonomy builds on the extensive factor analysis research by Yukl and colleagues (2002), and it also reflects findings in other taxonomic research linking specific behaviors to the performance of a team or organization. The three meta-categories in the Yukl and colleagues (2002) taxonomy were retained, but another component on task-oriented behavior (problem solving) was added, consulting and delegating were combined into a broader relations-oriented component (empowering), and taking risks to promote change was included in a broader change-oriented component (advocating change). The new taxonomy also includes a fourth meta-category (external behavior). Two of the component behaviors (networking and representing) were not included in the questionnaire used for the Yukl and colleagues (2002) research, and the third component (external monitoring) was in their questionnaire but it was included in the change-oriented meta-category.

Overview of Research on Effects of Leader Behavior

Much of the research on effects of leader behavior has been guided by popular leadership theories that emphasized one or two broadly defined behaviors. Early leadership theories such as path-goal theory (House, 1971), leadership substitutes theory (Kerr & Jermier, 1978), situational leadership theory (Hersey & Blanchard, 1977), and the managerial grid (Blake & Mouton, 1964) emphasized task-oriented and relations-oriented behavior, and these meta-categories were used in much of the research conducted from 1960 to 1980. Reviews and meta-analyses of results from hundreds of studies concluded that both meta-categories are related to independent measures of leadership effectiveness (DeRue, Nahrgang, Wellman, & Humphrey, 2011; Judge, Piccolo, & Ilies, 2004).

Since the 1980s, much of the research on the effects of leadership behavior has been based on theories of transformational and charismatic leadership (Avolio, Bass, & Jung, 1999; Bass, 1985; Conger & Kanungo, 1987; House, 1977; Shamir, House, & Arthur, 1993). As in the earlier research, most of these studies reported results only for composite scores on behavior meta-categories included in the theory. Reviews and meta-analyses of this research found that transformational leadership was related to indicators of leadership effectiveness in a majority of studies, but results were inconsistent for transactional leadership and charismatic leadership (De Groot, Kiker, & Cross, 2000; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996; Wang, Oh, Courtright, & Colbert, 2011; Yukl, 2013).

The research on effects of broadly defined behaviors has limitations that make the results difficult to interpret. The limitations include differences in the way behavior is defined and measured from study to study, use of composite scores based on diverse component behaviors that do not have the same effects, the exclusion of other relevant behaviors likely to be confounded with the measured behaviors, and over-reliance on weak research methods such as same-source survey studies. The results found for independent measures of leadership effectiveness were much weaker than results found for same-source measures, especially when objective performance measures were used (Burke et al., 2006; Kaiser, Hogan, & Craig, 2008).

The popularity of survey research on meta-categories may have inhibited research on effects of specific behaviors, because the number of studies on them is much smaller. The research on effects of specific leadership behaviors included several types of studies. Some studies used a behavior description questionnaire, but other studies used behavior descriptions from observation, diaries, or critical incidents. Several multiple-case studies used interviews, records, and other data collection methods to investigate how leader decisions and actions influenced performance for a team or organization, and the behavior of effective and ineffective leaders was usually compared. A few studies used laboratory or field experiments in which leader behavior was manipulated to assess the effects on subordinate performance. The findings in this research provide evidence that each of the 15 specific behaviors in the proposed taxonomy is relevant for effective leadership.

Effectiveness of Specific Leader Behaviors

In this section, the relevance of each specific component behavior is briefly explained, and the research linking it to effective leadership is cited. The research includes studies on dyadic, group, and organizational leadership. Most studies examined effects of behavior by individual leaders and included an independent source of information about leadership effectiveness, such as ratings by superiors or objective performance measures.

Task-Oriented Behaviors

As noted earlier, the primary purpose of task-oriented behaviors is to ensure that people, equipment, and other resources are used in an efficient way to accomplish the mission of a group or organization. Specific component behaviors include planning and organizing work-unit activities, clarifying roles and objectives, monitoring work-unit operations, and resolving work-related problems.

Planning

This broadly defined behavior includes making decisions about objectives and priorities, organizing work, assigning responsibilities, scheduling activities, and allocating resources among different activities. More specifically, activity planning involves scheduling activities and assigning tasks in a way that will accomplish task objectives and avoid delays, duplication of effort, and wasted resources. Project planning includes identifying essential action steps; determining an appropriate sequence and schedule for them; deciding who should do each action step; and determining what supplies, equipment, and other resources are necessary. The planning often requires information provided by other people such as subordinates, peers, bosses, and outsiders. Negative forms of this behavior include making plans that are superficial or unrealistic. Several types of research provide evidence that planning can enhance a leader's effectiveness, including survey studies (e.g., Kim & Yukl, 1995; Shipper, 1991; Shipper & Dillard, 2000; Shipper & Wilson, 1992; Yukl, Wall, & Lepsinger, 1990), incident and diary studies (e.g., Ancona & Caldwell, 1992; Morse & Wagner, 1978; Yukl & Van Fleet, 1982), and multiple-case studies (e.g., Kotter, 1982; Van Fleet & Yukl, 1986).

Clarifying

Leaders use clarifying to ensure that people understand what to do, how to do it, and the expected results. Clarifying includes explaining work responsibilities; assigning tasks; communicating objectives, priorities, and deadlines; setting performance standards; and explaining any relevant rules, policies, and standard procedures. Setting clear, specific, and challenging but realistic goals usually improves performance by a group (Locke & Latham, 1990). Negative forms of clarifying include failing to provide clear assignments, setting vague or easy goals, providing inconsistent instructions that create role ambiguity, and giving excessively detailed directions (micromanaging). Evidence that clarifying can enhance leadership effectiveness is provided by survey studies (e.g., Kim & Yukl, 1995; Shipper, 1991; Shipper & Dillard, 2000; Shipper & Wilson, 1992; Yukl & Kanuk, 1979; Yukl et al., 1990), incident and diary studies (e.g., Amabile, Schatzel, Moneta, & Kramer, 2004; Yukl & Van Fleet, 1982), comparative case studies (e.g., Van Fleet & Yukl, 1986), an executive team simulation study (Zalatan, 2005), a laboratory experiment (Kirkpatrick & Locke, 1996), and field experiments (Latham & Baldes, 1975; Latham & Yukl, 1976).

Monitoring

Leaders use monitoring to assess whether people are carrying out their assigned tasks, the work is progressing as planned, and tasks are being performed adequately. Information gathered from monitoring is used to identify problems and opportunities and to determine if changes are needed in plans and procedures. Information from monitoring can also be used to guide the use of relations-oriented behaviors such as praise or coaching. There are many different ways to monitor operations, including directly observing activities, examining recorded activities or communications, using information systems, examining required reports, and holding performance review sessions. Negative examples include types of monitoring that are intrusive, excessive, superficial, or irrelevant. Evidence that monitoring can improve leadership effectiveness is provided by survey studies (e.g., Kim & Yukl, 1995; Wang, Tsui, & Xin, 2011; Yukl et al., 1990), studies using direct observation or diaries (e.g., Amabile et al., 2004; Brewer, Wilson, & Beck, 1994; Komaki, 1986), comparative case studies (e.g., Peters & Austin, 1975; Van Fleet & Yukl, 1986), and a laboratory experiment (Larson & Callahan, 1990).

Problem Solving

Leaders use problem solving to deal with disruptions of normal operations and member behavior that is illegal, destructive, or unsafe. Serious disruptions of the work usually require leadership intervention, and other terms for problem solving include "crisis management" and "disturbance handling." Effective leaders try to quickly identify the cause of the problem, and they provide firm, confident direction to their team or work unit as they cope with the problem. It is important to

recognize the difference between operational problems that can be resolved quickly and complex problems likely to require change-oriented behaviors and involvement by other leaders. Problem solving also includes disciplinary actions in response to destructive, dangerous, or illegal behavior by members of the work unit (e.g., theft, sabotage, violation of safety regulations, falsification of records). Problem solving can be proactive as well as reactive, and effective leaders take the initiative to identify likely problems and determine how to avoid them or minimize their adverse effects. Many things can be done to prepare the work unit or organization to respond effectively to predictable types of disruptions such as accidents, equipment failures, natural disasters, health emergencies, supply shortages, computer hacking, and terrorist attacks. Negative forms of problem solving include ignoring signs of a serious problem, making a hasty response before identifying the cause of the problem, discouraging useful input from subordinates, and reacting in ways that create more serious problems. Evidence that problem solving is related to leadership effectiveness is provided by survey studies (e.g., Kim & Yukl, 1995; Morgeson, 2005; Yukl & Van Fleet, 1982; Yukl et al., 1990), studies using critical incidents or diaries (e.g., Amabile et al., 2004; Boyatzis, 1982; Yukl & Van Fleet, 1982), and comparative case studies (e.g., Van Fleet & Yukl, 1986).

Relations-Oriented Behaviors

Leaders use relations-oriented behaviors to enhance member skills, the leader–member relationship, identification with the work unit or organization, and commitment to the mission. Specific component behaviors include supporting, developing, recognizing, and empowering.

Supporting

Leaders use supporting to show positive regard, build cooperative relationships, and help people cope with stressful situations. Examples include showing concern for the needs and feelings of individual team members, listening carefully when a member is worried or upset, providing support and encouragement when there is a difficult or stressful task, and expressing confidence that someone can perform a difficult task. Supporting also includes encouraging cooperation and mutual trust and mediating conflicts among subordinates. A significant relationship between supporting and leadership effectiveness was found in survey studies (e.g., Dorfman, Howell, Cotton, & Tate, 1992; Kim & Yukl, 1995; McDonough & Barczak, 1991; Yukl & Van Fleet, 1982; Yukl et al., 1990), in studies using incidents or diaries (e.g., Amabile et al., 2004; Druskat & Wheeler, 2003; Yukl & Van Fleet, 1982), and in a laboratory experiment (Gilmore, Beehr, & Richter, 1979). Negative forms of supporting include hostile, abusive behavior. Research on abusive supervision finds that it reduces trust, elicits resentment, and invites retaliation (Mitchell & Ambrose, 2007; Tepper, 2000).

Developing

Leaders use developing to increase the skills and confidence of work-unit members and to facilitate their career advancement. Examples of developing include providing helpful career advice, informing people about relevant training opportunities, making assignments that allow learning from experience, providing developmental coaching when it is needed, asking a group member to provide instruction to a new member, arranging practice sessions or simulations to help members improve their skills, and providing opportunities to apply new skills on the job. Developing is mostly done with a subordinate or team, but some aspects may be used with a colleague or an inexperienced new boss. A positive relationship between developing subordinate skills and indicators of leadership effectiveness was found in survey studies (e.g., Kim & Yukl, 1995; Yukl et al., 1990), in research using critical incidents and interviews (e.g., Morse & Wagner, 1978), in comparative case studies (e.g., Bradford & Cohen, 1984; Edmondson, 2003b; Peters & Austin, 1985), and in an experiment (Tannenbaum, Smith-Jentsch, Salas, & Brannick, 1998).

Recognizing

Leaders use praise and other forms of recognition to show appreciation to others for effective per-

formance, significant achievements, and important contributions to the team or organization. Recognizing may involve an award presented in a ceremony, or the leader's recommendation for a tangible reward such as a pay increase or bonus. Effective leaders are proactive in looking for things that deserve recognition, and they provide recognition that is sincere, specific, and timely. Negative examples include providing excessive recognition for trivial achievements, failing to recognize an important contribution, and taking credit for another person's ideas or achievements. Evidence for the positive effects of praise and recognition on subordinate performance is provided by survey research (e.g., Kim & Yukl, 1995; Shipper, 1991; Shipper & Wilson, 1992; Yukl & Kanuk, 1979), research with incidents or diaries (e.g., Amabile et al., 2004; Atwater, Dionne, Avolio, Camobreco, & Lau, 1996), and descriptive case studies (e.g., Kouzes & Posner, 1987; Peters & Waterman, 1982). A field experiment found that increased use of praise by supervisors improved performance by employees (Wikoff, Anderson, & Crowell, 1983).

Empowering

Leaders can empower subordinates by giving them more autonomy and influence over decisions about the work. One empowering decision procedure called consultation includes asking other people for ideas and suggestions and taking them into consideration when making a decision. An even stronger empowering decision procedure called delegation involves giving an individual or group the authority to make decisions formerly made by the leader. When used in appropriate ways, empowerment can increase decision quality, decision acceptance, job satisfaction, and skill development (Vroom & Yetton, 1973; Yukl, in press). Ineffective forms of the behavior include using the supposedly empowering decision procedures in a way that allows no real influence, and giving too much autonomy or influence to people who are unable or unwilling to make good decisions.

The term "participative leadership" is sometimes used to describe extensive use of empowering decision procedures, and many studies have assessed the effects on subordinate attitudes and performance. Meta-analyses of this research found a weak positive relationship with leadership effectiveness (e.g., Miller & Monge, 1986; Spector, 1986; Wagner & Gooding, 1987). Stronger evidence that specific empowering decision procedures are related to leadership effectiveness has been provided by survey studies that measured a leader's use of consultation and delegation (e.g., Kim & Yukl, 1995; Shipper & Wilson, 1992; Yukl et al., 1990), by research with critical incidents and diaries (e.g., Amabile and colleagues, 2004; Druskat & Wheeler, 2003), by comparative case studies (e.g., Bradford & Cohen, 1984; Edmondson, 2003b; Kanter, 1983; Leana, 1986), and by field experiments (Bragg & Andrews, 1973; Coch & French, 1948; Korsgaard, Schweiger, & Sapienza, 1995).

Change-Oriented Behaviors

Leaders use change-oriented behaviors to increase innovation, collective learning, and adaptation to external changes. Specific component behaviors include advocating change, articulating an inspiring vision, encouraging innovation, and encouraging collective learning. The first two component behaviors emphasize leader initiation and encouragement of change, whereas the second two component behaviors emphasize leader facilitation of emergent change processes.

Advocating Change

Explaining why change is urgently needed is a key leadership behavior in theories of change management (e.g., Kotter, 1996; Nadler et al., 1995). When changes in the environment are gradual and no obvious crisis has occurred, people may fail to recognize emerging threats or opportunities. Leaders can provide information showing how similar work units or competitors have better performance. Leaders can explain the undesirable outcomes that are likely to occur if emerging problems are ignored or new opportunities are exploited by competitors. Influencing people to accept the need for change involves increasing their awareness of problems without creating an excessive level of distress that causes either denial of the problem or acceptance of easy but ineffective

solutions (Heifetz, 1994). Resistance to change is common in organizations, and courage is required to persistently push for it when the leader's career is at risk. It is easier to gain support for making innovative changes when a leader can frame unfavorable events as an opportunity rather than a threat. The leader can propose a strategy for responding to a threat or opportunity, but involving people with relevant expertise usually results in a better strategy and more commitment to implement it. Negative forms of the behavior include advocating a costly major change when only incremental adjustments are necessary (McClelland, Liang, & Barker, 2009), or advocating acceptance of a costly new initiative without considering the serious risks and obstacles (Finkelstein, 2003). Evidence that advocating relevant change is related to effective leadership is provided by comparative case studies (e.g., Beer, 1988; Edmondson, 2003b; Heifetz, 1994; Kotter & Cohen, 2002; Tichy & Devanna, 1986) and by an experiment using a simulated team task (Marks, Zaccaro, & Mathieu, 2000).

Envisioning Change

An effective way for leaders to build commitment to new strategies and initiatives is to articulate a clear, appealing vision of what can be attained by the work unit or organization. A vision will be more inspiring and motivating if it is relevant to the values, ideals, and needs of followers and is communicated with colorful, emotional language (e.g., vivid imagery, metaphors, stories, symbols, and slogans). An ambitious, innovative vision is usually risky, and members of the team or organization are more likely to accept it if the leader can build confidence that they will be successful (Nadler, 1988). However, an appealing vision based on false assumptions and wishful thinking can divert attention from innovative solutions that are more likely to be successful (Mumford, Scott, Gaddis, & Strange, 2002). Consistently pursuing a risky and unrealistic vision is a major reason for serious performance declines in organizations with a charismatic leader (Finkelstein, 2003). Evidence that articulating an appealing and inspiring vision is relevant for effective leadership is provided by survey studies (e.g., Baum, Locke, & Kirkpatrick, 1998; Elenkov, Judge, & Wright, 2005; Keller, 2006; Kim & Yukl, 1995; Wang, Tsui, & Xin, 2011; Yukl et al., 1990), comparative case studies (e.g., Bennis & Nanus, 1985; Emrich, Brower, Feldman, & Garland, 2001; Kotter & Cohen, 2002; Roberts, 1985; Tichy & Devanna, 1986), and laboratory experiments (e.g., Awamleh & Gardner, 1999; Kirkpatrick & Locke, 1996).

Encouraging Innovation

There are many ways leaders can encourage, nurture, and facilitate creative ideas and innovation in a team or organization. Other terms that describe aspects of this behavior include "intellectual stimulation" and "encouraging innovative thinking." Leaders can encourage people to look at problems from different perspectives, to think outside the box when solving problems, to experiment with new ideas, and to find ideas in other fields that can be applied to their current problem or task. By creating a climate of psychological safety and mutual trust, a leader can encourage members of the team or organization to suggest novel ideas. Leaders can also help to create an organizational culture that values creativity and entrepreneurial activities, they can provide opportunities and resources to develop new products or services, and they can serve as champions or sponsors for acceptance of innovative proposals. Evidence linking this type of change behavior to indicators of effective leadership is provided by survey studies (e.g., Bass & Yammarino, 1991; Elenkov, Judge, & Wright, 2005; Howell & Avolio, 1993; Keller, 2006; Waldman, Javidan, & Varella, 2004; Zhu, Chew & Spangler, 2005), comparative case studies (e.g., Edmondson, 2003b; Eisenhardt, 1989; Kanter, 1983; Peters & Austin, 1985), a laboratory experiment (Redmond, Mumford, & Teach, 1993), and a field experiment (Barling, Weber, & Kelloway, 1996).

Facilitating Collective Learning

There are many ways leaders can encourage and facilitate collective learning of new knowledge relevant for improving the performance of a group or organization (Berson, Nemanich, Waldman, Galvin, & Keller, 2006; Popper & Lipshitz, 1998). Collective learning may involve improvement of

current strategies and work methods (exploitation) or discovery of new ones (exploration). Leaders can support internal activities used to discover new knowledge (e.g., research projects, small-scale experiments) or activities to acquire new knowledge from external sources. Leaders can use practices that facilitate learning by an operations team (e.g., after-activity reviews, benchmarking) or a project development team (e.g., providing resources and opportunity to test new ideas). By helping to create a climate of psychological safety, leaders can increase learning from mistakes and failures. To enhance collective learning from both successes and failures, leaders must avoid common tendencies to misinterpret causes and over-generalize implications (Baumard & Starbuck, 2005). Leaders can help their teams to better recognize failures, analyze their causes, and identify remedies to avoid a future recurrence (Cannon & Edmondson, 2005). Leaders can also influence how new knowledge or a new technology is diffused and applied by explaining why it is important, guiding the process of learning how to use it, and encouraging the use of knowledge-sharing programs. Leaders can help people develop a better understanding about the determinants of organizational performance. More accurate, shared mental models will improve strategic decisions and organizational performance. Evidence that facilitating collective learning is related to effective leadership is provided by comparative case studies (e.g., Baumard & Starbuck, 2005; Beer, 1988; Edmondson, 1999; Edmondson 2002, 2003a) and by experiments with teams (e.g., Ellis, Mendel, & Nir, 2006; Tannenbaum, Smith-Jentsch, & Behson, 1998).

External Leadership Behaviors

In addition to influencing internal events in the work unit, most leaders can facilitate performance with behaviors that provide relevant information about outside events, get necessary resources and assistance, and promote the reputation and interests of the work unit. Three distinct external behaviors include networking, external monitoring, and representing.

Networking

It is important for most leaders to build and maintain favorable relationships with peers, superiors, and outsiders who can provide information, resources, and political support (Ibarra & Hunter, 2007; Kaplan, 1984; Kotter, 1982; Michael & Yukl, 1973). Networking includes attending meetings, professional conferences, and ceremonies; joining relevant associations, clubs, and social networks; socializing informally or communicating with network members; and using relationship-building tactics (e.g., finding common interests, doing favors, using ingratiation). In addition to developing their own networks, leaders can encourage relevant networking by subordinates. Networking is a source of information that facilitates other leadership behaviors, but there are potential costs if it is overdone (e.g., time demands, role conflicts). Evidence that networking can facilitate leadership effectiveness is provided by survey studies (e.g., Kim & Yukl, 1995; Yukl et al., 1990); studies with incident diaries, interviews, or observation (e.g., Amabile et al., 2004; Ancona & Caldwell, 1992; Druskat & Wheeler, 2003; Luthans, Rosenkrantz, & Hennessey, 1985); and comparative case studies (e.g., Katz & Tushman, 1983; Tushman & Katz, 1980).

External Monitoring

This external behavior includes analyzing information about relevant events and changes in the external environment and identifying threats and opportunities for the leader's group or organization. Information may be acquired from the leader's network of contacts with outsiders, by studying relevant publications and industry reports, by conducting market research, and by studying the decisions and actions of competitors and opponents. Other terms for external monitoring are "environmental scanning" or "scouting." The extent to which top executives accurately perceive the external environment of their organization is related to financial performance (Bourgeois, 1985), and it is more important when the environment is dynamic and competitive. For a team or work unit in an organization, the importance of external monitoring depends on how much their

performance is likely to be affected by external events. Likewise, the need to closely monitor events in other subunits is determined by dependence on them. Evidence that external monitoring is related to indicators of effective leadership is provided by survey research (Dollinger, 1984), research with critical incidents and diaries (e.g., Druskat & Wheeler, 2003; Katz & Tushman, 1981; Luthans et al., 1985), research with comparative cases (e.g., Geletkanycz & Hambrick, 1997; Grinyer, Mayes, & McKiernan, 1990; Van Fleet & Yukl, 1986), and a study using an executive team simulation (Zalatan, 2005).

Representing

Leaders usually represent their team or organization in transactions with superiors, peers, and outsiders (e.g., clients, suppliers, investors, and joint venture partners). Representing includes lobbying for resources and assistance, promoting and defending the reputation of the team or organization, negotiating agreements, and coordinating related activities. Other terms used to describe this type of leadership responsibility include "promoter," "ambassador," and "external coordinator." Leaders of project teams have more successful projects when they have sufficient influence to obtain essential resources and support from top management (Katz & Allen, 1985). For work units that have high interdependence with other subunits of the organization or with outsiders such as suppliers, clients, and distributors, it is important for the leaders to coordinate activities, resolve disagreements, and buffer work-unit members from interference (Ancona & Caldwell, 1992). Top executives need to influence external stakeholders whose confidence and support are important to the success and survival of the organization (Fanelli & Misangyi, 2006). Representing also includes some political tactics that can be used to influence decisions relevant for a leader's work unit or organization, but research on the use of political tactics by leaders in organizations is still very limited. Evidence that representing is related to effective leadership is provided by research using survey questionnaires (e.g., Ancona & Caldwell, 1992; Dorfman, Howell, Cotton, & Tate, 1992; Yukl, Wall, & Lepsinger, 1990), research with incident diaries and interviews (e.g., Amabile et al., 2004; Ancona & Caldwell, 1992; Campbell, Dunnette, Arvey, & Hellervik, 1973; Druskat & Wheeler, 2003), and comparative case studies (e.g., Ancona & Caldwell, 1992; Edmondson, 2003b; Kanter, 1983; Van Fleet & Yukl, 1986).

Future Research

Much of the research on effects of leader behavior has examined how often the behavior is used, but the effects also depend on other conditions that are seldom considered. To improve leadership theory and practice we need to know more about how much the behaviors are used, when they are used, how well they are used, why they are used, who uses them, the context for their use, and joint effects on different outcomes. This part of the article explains the need for more research on the quality and timing of behavior, patterns of behavior, leader skills, leader values, trade-offs for multiple outcomes, situational variables, the joint effects of multiple leaders, and the joint effects of behavior and formal programs.

Quality and Timing of Behavior

Most leader behavior studies emphasize how much the behavior is used rather than how well it is used. Few studies have examined the quality and timing of the behavior or checked the possibility of a non-linear relationship between behavior and the performance criterion. There is growing evidence that most types of leadership behavior can be overused as well as underused, and the optimal amount of behavior is often a moderate amount rather than the maximum amount (e.g., Fleishman & Harris, 1962; Gebert, Boerner, & Lanwehr, 2003; Pierce & Aguinis, in press). For example, too much clarifying can limit innovation, empowerment of subordinates, and development of their problem-solving skills, but too much autonomy can result in coordination problems, lower efficiency, and inconsistent treatment of clients. Even when doing more of a behavior does not reduce the benefits or have negative side effects, spending more time than necessary on a behavior means that the leader is losing the opportunity to use more beneficial types of behavior.

Timing is often a critical determinant of effectiveness for a behavior, and acting too early or too late can reduce the effectiveness of many behaviors. For example, taking action to avoid a problem or resolve it quickly is usually more effective than waiting until the problem becomes very serious and difficult to resolve. Praise for an achievement or contribution is usually more effective when it is given promptly rather than waiting months to mention it in a formal performance review. Research is needed to identify optimal levels of the behaviors and when the behaviors are most likely to be effective.

Patterns of Behavior

In most research on the effects of leader behavior the focus is on the independent effects of each meta-category or individual behavior, but in many cases the effects depend in part on what other behaviors the leader uses. To understand why a leader is effective requires that we examine how different behaviors interact in a mutually consistent way. The effective pattern of behavior may involve multiple components of the same meta-category or component behaviors from different meta-categories. For example, monitoring operations is useful for discovering problems, but unless something is done to solve the problems, monitoring will not contribute to leader effectiveness. Monitoring is more effective when used together with other behaviors such as problem solving, coaching, and recognizing.

The descriptive research on effective leaders suggests that they use complementary behaviors woven together into a complex tapestry, and the whole is greater than the sum of the parts (Kaplan, 1988). Similar results were found in research using incident diaries from team members (Amabile et al., 2004). The pattern of specific component behaviors is usually more important than how much each behavior is used, and more than one pattern of behavior may be used to accomplish the same outcome. Sometimes it is necessary for a leader to find an appropriate balance for behaviors that appear inconsistent, such as directing versus empowering (Kaiser & Overfield, 2010). More research is needed to determine how interacting behaviors are used effectively by leaders in different situations.

Multiple Outcomes and Trade-Offs

Each specific type of leadership behavior can influence more than one type of outcome or performance determinant. For example, developing is classified as a relations-oriented behavior because the primary objective is usually to help people improve their capabilities and advance their careers. But some types of developing are used to improve performance in the current job (a task objective) or facilitate the successful use of an innovative new technology (a change objective). Consulting with team members about the action plan for a new project may increase member commitment (human relations), improve the use of available personnel and resources (efficiency), and identify more innovative ways to satisfy clients (adaptation).

Specific behaviors with positive outcomes for more than one objective are desirable and can increase a leader's effectiveness. However, some leader behaviors have unintended side effects that are negative rather than positive. A behavior can have positive effects for some outcomes and negative effects for other outcomes. For example, delegating responsibility for determining how to do a task to someone with little experience may increase learning for the person, but it can reduce short-term efficiency (e.g., more errors, slower task completion, lower quality). Some decisions intended to benefit employees (e.g., increasing pay and benefits) may increase costs and reduce short-term financial performance. Some decisions intended to reduce costs can reduce human relations and resources (i.e., downsizing can result in less commitment for remaining employees and loss of unique knowledge). Some decisions made to reduce costs (e.g., reducing research activities, outsourcing operations that involve unique knowledge) can also reduce future adaptation. The trade-offs for different outcomes are described by leadership theories such as competing values theory (Quinn & Rohrbaugh, 1983) and flexible leadership theory (Yukl, 2008). More research is needed to discover how effective leaders use specific behaviors that enhance multiple outcomes,

minimize negative side effects, and balance difficult trade-offs.

Situational Variables

The effects of a leader's behavior also depend on the situation. Each meta-category includes behaviors that are often relevant for influencing performance outcomes, but aspects of the situation determine which component behaviors are relevant. Effective leaders analyze the situation and identify the specific behaviors that are relevant. The ability to use a wide range of specific behaviors and adapt them to the situation is sometimes called "behavioral flexibility," and it is related to effective leadership (Hart & Quinn, 1993; Hooijberg, 1996; Yukl & Mahsud, 2010). Unfortunately, most studies on situational moderator variables have used behavior meta-categories, and the results are weaker and more difficult to interpret for a broad category than for specific behaviors. For example, the research testing contingency theories about the effects of task-oriented and relations-oriented behaviors failed to find strong, consistent results (Podsakoff, MacKenzie, Ahearne, & Bommer, 1995). There has been less research on situational moderators for the other meta-categories, and there is little systematic research to identify situations where specific leadership behaviors are most likely to impact performance outcomes. More research is needed to learn how leaders adapt their behavior to changing situations and to assess the importance of behavioral flexibility for different types of leaders. The common practice of examining one situational variable at a time is less useful than examining how the situational variables that define common situations for leaders jointly determine which behaviors are most relevant.

Leader Skills

Skills involve the ability to perform some type of activity or task, and some studies on effective leadership use skills rather than observable behaviors as the independent variables. Different taxonomies have been proposed for classifying skills, and some scholars define them more broadly than others. The early research identified three broadly defined skills (Katz, 1955; Mann, 1965): Technical skills are primarily concerned with things, interpersonal skills are primarily concerned with people, and conceptual skills are primarily concerned with ideas and concepts. Other types of skills that have been used in leadership research include political skills (Ferris, Treadway, Perrewé, Brouer, Douglas, & Lux, 2007), administrative skills, and competencies involving the ability to use specific types of behavior such as planning and coaching (e.g., Mumford, Campion, & Morgeson, 2007). Skills are not equivalent to actual behavior, but they can help us understand why some leaders are able to select relevant behaviors and use them more effectively. A combination of skills and traits can help to explain why some leaders are able to recognize what pattern of behavior is relevant, how much of each behavior is optimal, and when to use the behaviors. The research on how skills can enhance the effects of leader behavior is still very limited, and more studies are needed to discover how a leader's skills and personality traits influence the choice of behaviors and leader flexibility in adapting behavior to different situations.

Leader Values and Integrity

The effects of the specific component behaviors also depend on how much the leader is trusted by people he or she wants to influence. Most types of leadership behavior can be used in ethical or unethical ways, and a leader who is not trusted will have less influence. Leader values and integrity did not get much attention in the early research on effective leadership, but interest in them has increased in recent years (Brown & Trevino, 2006). Values such as honesty, altruism, compassion, fairness, courage, and humility are emphasized in servant leadership theory (Greenleaf, 1970), spiritual leadership theory (Fry, 2003), and authentic leadership theory (Avolio, Gardner, Walumbwa, Luthans, & Mayo, 2004; George, 2003). Proponents of these theories contend that leaders whose behavior reflects these values will be more effective. However, research on these subjects is still very limited, and more studies are needed to understand how leader values influence the use of the specific behaviors and the effects of the behaviors.

Multiple Leaders and Shared Leadership

Most of the research on the outcomes of leadership behavior examines relationships only for individual leaders. However, organizations have many leaders who can influence important decisions and determine how successfully they are implemented (Mintzberg, Raisinghani, & Theoret, 1976; Schweiger, Anderson, & Locke, 1985). Sometimes two or more leaders have shared responsibility for an activity or project, and sometimes leaders have different but interdependent responsibilities. The performance of an organization depends in part on the level of cooperation and coordination among interdependent leaders (Yukl, 2008; Yukl & Lepsinger, 2004). It is more difficult to achieve a high level of cooperation when the leaders do not share the same objectives or have the same priorities. In some cases, one leader's actions to improve subunit performance can be detrimental to the performance of other subunits and the overall organization. For example, a subunit leader may gain control of resources that other subunits need and could use more effectively. Several scholars have discussed how shared or distributed leadership is related to team or organizational effectiveness (e.g., Brown & Gioia, 2002; Carson, Tesluk, & Marrone, 2007; Denis, Lamothe, & Langley, 2001; Friedrich, Vessey, Schuelke, Ruark, & Mumford, 2009; Pearce & Conger, 2003). However, more research is needed to discover how the use of the specific behaviors by different leaders can influence their effectiveness.

Behaviors and Formal Programs

Management programs and systems can enhance the effects of direct leadership behaviors. For example, encouraging innovative thinking is more likely to increase innovation when an organization has a climate of psychological safety for risk taking and appropriate rewards for creative ideas about improving products and processes. Programs and structures can also limit the use of leadership behaviors or nullify their effects. For example, it is difficult to empower subordinates when they must follow elaborate rules and standard procedures for doing the work. Management programs and systems can also serve as substitutes for some types of direct behaviors. For example, company-wide training programs for widely relevant skills can reduce the amount of training that managers need to give their immediate subordinates. Top executives have responsibility for implementing and revising programs, and the effectiveness of programs depends on support by lower-level managers. The effects of leader behavior and management programs have been examined separately, but more systematic research is needed to examine their joint and interacting effects on organizational performance.

Summary and Recommendations

The proposed hierarchical taxonomy facilitates the integration of important findings in research on leader behavior constructs and research about the effects of specific behaviors on team or organizational performance. More than half a century of research provides support for the conclusion that leaders can enhance the performance of a team, work unit, or organization by using a combination of specific task, relations, change, and external behaviors that are relevant for their situation. Why the behaviors are important for effective leadership is explained better by theories about the determinants of group and organizational performance than by leadership theories focused on motivating individual followers. A limitation of the conclusions about effective leadership is that enhancing performance is not the only basis for evaluating effectiveness, and the importance accorded different criteria affects the selection of relevant behaviors for a taxonomy.

The hierarchical taxonomy can be used to explain results found in the extensive research on behavior meta-categories not used in the taxonomy, such as transformational and transactional leadership. The results found in survey research on transformational leadership can be explained as effects of specific behaviors used to compute the composite score for each leader (e.g., Yukl, 1999; Yukl, O'Donnell, & Taber, 2009). Individualized consideration includes supporting and developing, inspirational motivation includes envisioning change, and intellectual stimulation includes aspects of encouraging innovation.

Idealized influence is primarily a measure of perceived leader integrity involving consistency between leader actions and espoused values. Transactional leadership includes one task-oriented behavior (monitoring), one relations-oriented behavior (recognizing), and communication of reward contingencies, which are usually specified by the formal compensation program.

The taxonomy described in this article should not be viewed as the final solution for classifying leadership behavior. Behavior constructs are conceptual tools, and there is no objective reality for them. They are most useful when they can be measured accurately, they can predict and explain leader influence on important outcomes, and they can improve leadership development programs. Future research may discover additional component behaviors that should be included (e.g., implementing change). Some component behaviors may need to be expanded to include forms of the behavior not explicitly included in the current descriptions. Some of the broader component behaviors in the current taxonomy may need to be subdivided in the future if it is found that narrower components would provide a better explanation of leadership effectiveness. However, at this time it does not appear worthwhile to make the taxonomy any more complex. The current version is easy to remember and easy to use for developing an observation checklist or a coding guide (the behavior definitions are provided in the appendix).

Future research may also provide justification for adding more meta-categories, and a possible candidate is ethical and socially responsible leadership. One component of this meta-category could be leadership behavior that encourages ethical practices. Some examples are communicating ethical standards, encouraging ethical conduct, modeling ethical behavior, and opposing unethical conduct. Another component could be leadership behavior that encourages corporate social responsibility. Examples include making decisions that consider the needs of different stakeholders, encouraging support of worthy community service activities, encouraging improvements in product safety, and recommending practices that reduce harmful effects for the environment. Leadership decisions and actions intended to benefit employees, customers, or the environment are controversial if they do not also benefit the organization (Cameron, 2011; Waldman, 2011; Waldman & Siegel, 2008). Research on the effects of ethical and responsible leadership is still very limited, and more research is needed to identify relevant behaviors and assess their short-term and long-term effects. The focus of this article is on leadership behaviors intended to improve performance, and more research is needed to determine if ethical and responsible leadership should be included as a separate meta-category in a taxonomy for describing performance-enhancing behaviors.

The hierarchical taxonomy provides a broad perspective for understanding the types of behavior that determine how effective a leader will be, but the specific component behaviors are much more useful than the meta-categories for developing better contingency theories and practical guidelines for leaders. Moderator variables for some of the specific behaviors have been suggested (Yukl, 2013), but more research is needed on the joint effects of situational variables. Other relevant conditions that need more attention in future research include non-linear relationships between behavior and outcomes, reciprocal causality, lagged effects, effects for different outcomes, effects of negative forms of the behaviors, effects of different combinations of specific behaviors, mediating processes that explain why the behaviors influence performance, the joint effects of multiple leaders, multi-level effects of behaviors, and joint effects for behaviors and programs.

When designing future studies on leadership it is important to select research methods that are appropriate for the type of knowledge sought rather than merely using a method that is familiar or convenient. Each research method has limitations, and it is desirable to use multiple methods whenever feasible. Strong research methods should be used more often, including longitudinal field studies and experiments with manipulation of leader behaviors in simulated teams or organizations to assess immediate and delayed effects. More studies should include incident diaries or video recording of leaders. When behavior questionnaires are used, more effort should be made to

improve measurement accuracy and minimize respondent biases (e.g., train respondents to understand and recognize the behaviors). If a survey is conducted for a sample of homogeneous leaders (e.g., project team managers, coaches of athletic teams, public administrators), it should include some behavior items that are directly relevant for the sample rather than relying only on a behavior questionnaire with generic examples. Leadership effectiveness should be assessed from the perspective of multiple stakeholders and with multiple criteria that include objective measures of work unit or organizational performance.

Finally, it is important to recognize that observable leadership behaviors are not the same as skills, values, personality traits, or roles. These other constructs can be useful for understanding effective leadership, but they differ in important ways from observable behaviors. When feasible, future studies should investigate how the different types of constructs jointly explain leader influence on work unit performance and other outcomes.

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Appendix

Definitions of 15 Specific Leadership Behaviors

Planning: develops short-term plans for the work; determines how to schedule and coordinate activities to use people and resources efficiently; determines the action steps and resources needed to accomplish a project or activity.

Clarifying: clearly explains task assignments and member responsibilities; sets specific goals and deadlines for important aspects of the work; explains priorities for different objectives; explains rules, policies, and standard procedures.

Monitoring: checks on the progress and quality of the work; examines relevant sources of information to determine how well important tasks are being performed; evaluates the performance of members in a systematic way.

Problem Solving: identifies work-related problems that can disrupt operations, makes a systematic but rapid diagnosis, and takes action to resolve the problems in a decisive and confident way.

Supporting: shows concern for the needs and feelings of individual members; provides support and encouragement when there is a difficult or stressful task, and expresses confidence members can successfully complete it.

Recognizing: praises effective performance by members; provides recognition for member achievements and contributions to the organization; recommends appropriate rewards for members with high performance.

Developing: provides helpful feedback and coaching for members who need it; provides helpful career advice; encourages members to take advantage of opportunities for skill development.

Empowering: involves members in making important work-related decisions and considers their suggestions and concerns; delegates responsibility and authority to members for important tasks and allows them to resolve work-related problems without prior approval.

Advocating Change: explains an emerging threat or opportunity; explains why a policy or procedure is no longer appropriate and should be changed; proposes desirable changes; takes personal risks to push for approval of essential but difficult changes.

Envisioning Change: communicates a clear, appealing vision of what could be accomplished; links the vision to member values and ideals; describes a proposed change or new initiative with enthusiasm and optimism.

Encouraging Innovation: talks about the importance of innovation and flexibility; encourages innovative thinking

and new approaches for solving problems; encourages and supports efforts to develop innovative new products, services, or processes.

Facilitating Collective Learning: uses systematic procedures for learning how to improve work unit performance; helps members understand causes of work unit performance; encourages members to share new knowledge with each other.

Networking: attends meetings or events; joins professional associations or social clubs; uses social networks to build and maintain favorable relationships with peers, superiors, and outsiders who can provide useful information or assistance.

External Monitoring: analyzes information about events, trends, and changes in the external environment to identify threats, opportunities, and other implications for the work unit.

Representing: lobbies for essential funding or resources; promotes and defends the reputation of the work unit or organization; negotiates agreements and coordinates related activities with other parts of the organization or with outsiders.