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An integrative model of leadership behavior

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ABSTRACT

Decades of questionnaire and interview studies have revealed various leadership behaviors observed in successful leaders. However, little is known about the actual behaviors that cause those observations. Given that lay observers are prone to cognitive biases, such as the halo effect, the validity of theories that are exclusively based on observed behaviors is questionable. We thus follow the call of leading scientists in the field and derive a parsimonious model of leadership behavior that is informed by established psychological theories. Building on the taxonomy of Yukl (2012), we propose three task-oriented behavior categories (enhancing understanding, strengthening motivation and facilitating implementation) and three relation-oriented behavior categories (fostering coordination, promoting cooperation and activating resources), each of which is further specified by a number of distinct behaviors. While the task-oriented behaviors are directed towards the accomplishment of shared objectives, the relation-oriented behaviors support this process by increasing the coordinated engagement of the team members. Our model contributes to the advancement of leadership behavior theory by (1) consolidating current taxonomies, (2) sharpening behavioral concepts of leadership behavior, (3) specifying precise relationships between those categories and (4) spurring new hypotheses that can be derived from existing findings in the field of psychology. To test our model as well as the hypotheses derived from this model, we advocate the development of new measurements that overcome the limitations associated with questionnaire and interview studies.

Introduction

Over 100 years of leadership research has yielded strong evidence that an organization's success depends upon its managers' leadership (e.g., Wang, Tsui, & Xin, 2011). According to Nohria, Joyce, and Roberson (2003), CEOs account for up to 15% of the variance in an organization's financial outcomes. Consequently, a large proportion of leadership research has been devoted to the question of what constitutes effective leadership behavior. This field of research aims to identify the qualities that distinguish excellent leaders from their average colleagues, rendering the former more successful in excelling at financial goals, inducing follower satisfaction and securing external resources.

Although our understanding of effective leadership behavior has advanced over the past 100 years and now constitutes an established research area, leading scientists in the field have recently questioned certain widespread assumptions regarding effective leadership behavior (e.g., Avolio, 2007; van Knippenberg & Sitkin, 2013; Yukl, 2012). These critics have found evidence of confusion of actual leadership behavior with followers' perceptions of leadership behavior (Dinh et al., 2014). This confusion is generated and aggravated by flawed measures. As a result, van Knippenberg and Sitkin (2013) emphasized two major problems

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in current leadership theory that threaten the validity of many previous findings: 1) a lack of distinct conceptual definitions, resulting in considerable overlap among different concepts, and 2) a lack of coherent causal models that include specific mediating and moderating processes.

Contending that those problems are too severe to be resolved through minor modifications to existing theories, van Knippenberg and Sitkin (2013) called for the abandonment of the current focus on contemporary leadership concepts and hence for new conceptualizations. In line with other authors (e.g., Avolio, 2007; DeRue, Nahrgang, Wellman, & Humphrey, 2011), they encourage the scientific community to generate more sophisticated and integrative leadership theories that are based on sound methodology and that span different streams of research outside the core leadership literature.

In this paper, we follow van Knippenberg and Sitkin's (2013) call: We derive a model of leadership behavior that integrates the most fundamental findings of past leadership behavior research with well-established psychological theories and that ceases to perpetuate the flaws of contemporary models. We begin by first reviewing the fundamental criticisms. We then review the findings of recent meta-analyses (DeRue et al., 2011) and taxonomies (Yukl, 2012) of effective leadership behavior (perceptions) that are related to superior leadership outcomes. Next, we integrate these behaviors into a coherent theoretical framework based on fundamental psychological research. The theoretical framework is derived from the essence of leadership, "influencing and facilitating individual and collective efforts to accomplish shared objectives" (Yukl, 2012, p. 66), and is based on the two meta-categories of task- and relations-oriented leadership behavior. Corresponding to these two meta-categories, we integrate two streams of psychological research: 1) motivation and action theories that explain how individuals establish and accomplish their goals and 2) group and engagement research that analyses the conditions under which individuals invest their resources in a collective endeavor. We then derive an integrative model of leadership behavior that fulfills the following criteria:

1. It discriminates actual behavior from perceived behavior.
2. It sharpens the behavioral concepts and reduces overlap among them.
3. It suggests specific relationships between its concepts, introduces a process perspective and hence prompts new hypotheses that could motivate future studies.
4. It integrates established psychological theories and thus taps into a wealth of scientific knowledge to spark theoretic proliferation.

Equipped with these four contributions to the field of leadership research, the integrative model of leadership behavior is proposed as an advance in scientific efforts towards a more integrative and theory-driven leadership theory. We show that the new model meets all of the criteria of a good theory (Filley, House, & Kerr, 1976): generality, parsimony, external and internal consistency as well as testability. As such, the model offers orientation by providing a parsimonious and coherent framework in the discussion of effective leadership behavior. Such a framework allows for a consistent and meaningful integration of co-existing – and often diverging – leadership concepts. Thereby, the framework helps to prevent duplication of effort and promotes cooperation between distant research groups and disciplines. Despite being parsimonious, the model provides rich detail and concreteness as it connects to a considerable wealth of existing psychological theories and research. This theoretical foundation grants researchers immediate access to untapped resources and knowledge outside of the core leadership community and stimulates new research hypotheses. Taken together, the model combines two important strengths of a good theory: It offers a high level of general breadth as well as a profound level of detail.

We are aware that the endeavor to develop and establish such a model requires the expertise and support of the entire scientific community in this area. The proposed model is therefore not intended to be the ultimate truth but rather a starting point to spark new thoughts and hypotheses, as well as new models and methods to test them.

Current state of leadership behavior research

Before beginning any endeavor, it is crucial to realize where one stands in terms of theory and to take stock of the tools at one's disposal. In our case, we need to understand the strengths and weaknesses of current leadership behavior research to avoid perpetuating its flaws.

The lack of theory-based conceptualizations of leadership behavior

Contemporary leadership behavior research has been criticized for its weak theoretical foundation (van Knippenberg & Sitkin, 2013). One reason for this might be that, in the 100 years of leadership research, the majority of studies have investigated leadership behavior using interviews or questionnaires. The model of charismatic-transformational leadership (Avolio, Bass, & Jung, 1999) exemplifies this approach: as a first step, researchers interview a group of theoretical or practical experts. The experts explicate their cognitive models that describe what distinguishes the best leaders. In a second step, based on qualitative analyses of these interviews, researchers generate survey items (e.g., the MLQ in Avolio et al., 1999). The MLQ survey and its subsequent revisions are the foundation of the vast majority of current research on transformational leadership.

Although an observation-based, inductive procedure guarantees the practical relevance of the identified leader behaviors, it is beset by problems that question the usefulness and validity of ensuing theories[1]: Most conceptualizations of leadership neither

[1] As van Knippenberg and Sitkin (2013) offer a detailed discussion on the conceptual limitations of current leadership theories, we only summarize their points. Readers are invited to consult the original work to understand the full complexity of these issues.

offer theory-guided criteria for the inclusion and exclusion of particular behaviors and/or categories nor explain how these categories relate to one another. Rather than being based on theoretical assumptions and grounded in established theories, most leadership conceptualizations constitute a conglomerate of behaviors attributed to successful leaders.

We argue that leadership behavior models developed solely on the basis of interviews and surveys share a major flaw: they fail to differentiate between leadership behavior and perceptions of leadership behavior. Whoever answers the survey or interview is bound to report his or her personal perception of leadership behavior (Hansbrough, Lord, & Schyns, 2015). There are good reasons to assume that the reported behavior perception differs from the behavior itself (Davis & Luthans, 1979; Hansbrough et al., 2015; Lee, Martin, Thomas, Guillaume, & Maio, 2015; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Observation research has demonstrated that the reliable and valid observation of behavior is an art. A reliable behavior rating can only be mastered by highly trained observers who are equipped with rating manuals and specific descriptions of the intended behaviors and are intentionally focused on observing these behaviors. In consequence, we expect that most contemporary leadership behavior research is fraught with the well-established observation errors of lay observers (Dinh et al., 2014; Hansbrough et al., 2015) such as the halo effect (Frone, Adams, Rice, & Instone-Noonan, 1986; Thorndike, 1920), confirmation biases based on implicit leadership theories (Phillips & Lord, 1986) or the need to answer consistently (Podsakoff & Organ, 1986).

The severity of the consequences of the confusion of real behavior and behavior perception depends on the type of observation error. If observation errors are random, they merely increase error variance and hence conceal existing effects or decrease their estimated size. However, the high correlations of leadership behavior perception scales with other constructs suggest that the observation errors are systematic: most studies establish high correlations between profoundly different leadership behavior scales. The MLQ (Multifactor Leadership Questionnaire) is an example, wherein transactional leadership is defined as the opposite of transformational leadership. However, the transactional leadership scale 'Contingent Reward' correlates with transformational leadership at $r > 0.79$, reaching up to $r = 0.93$ for some of the sub-factors (Avolio et al., 1999). A well-established observation error explains this finding: the halo effect (Thorndike, 1920). If a lay observer believes the leader to be effective, this general judgment superimposes differentiated observation, and the observer reports more positive leadership behaviors in all categories – and vice versa (Frone et al., 1986). The stronger the halo effect, the larger the intercorrelations among supposedly distinct leadership behaviors.

Due to the halo effect, current leadership behavior theories contain blurred categories. This shortcoming is reflected in the considerable variety of competing leadership theories with substantially overlapping components. Given the frequently reported intercorrelations of $r > 0.7$ for supposedly distinct types of leadership, the unique value of most current leadership theories remains unclear, for example, charismatic-transformational leadership and consideration (DeRue et al., 2011); charismatic-transformational and empowering leadership (Tekleab, Sims, Yun, Tesluk, & Cox, 2007); consideration, transformational and ethical leadership (Brown, Treviño, & Harrison, 2005).

Most extant studies have surveyed the leader's subordinates as lay observers. However, subordinates' leadership perceptions are confounded by leadership outcomes (DeRue et al., 2011), which gives rise to an additional shortcoming in current leadership theories: an overestimation of the effects of leadership behavior on leadership outcomes. If subordinates attribute high success to their leader, they are likely to 1) attest to her highly effective leadership behavior (Lord, Binning, Rush, & Thomas, 1978), 2) identify with her (Ellemers, Gilder, & Haslam, 2004) and 3) act to support the group's success (Karau & Williams, 1993).

The confusion between behavior and behavior perception has given rise to another observation error in contemporary leadership behavior research: confirmation bias based on implicit leadership theories (Hansbrough et al., 2015; Phillips & Lord, 1986). Based on this observation error, subordinates report more of a particular leadership behavior if they expect to observe that behavior based on their implicit leadership theories: Imagine a leader who does not offer explicit appreciation. Nevertheless, her followers might feel appreciated if the leader often solicits their opinions, allows them to influence important decisions, cares about their needs and supports them when needed. As a consequence, her followers strongly believe that she appreciates them. As part of the confirmation bias, her subordinates are likely to falsely report more explicit appreciating behavior because such behavior would be in line with their expectations. Thus their feeling of being appreciated has influenced the reported behavior perception. Theories that do not differentiate behavior from behavior perception risk reiterate prevailing implicit leadership theories, overlooking causal relationships that are not part of those implicit theories and thus overestimating the effects of leadership behavior on leadership outcomes that are in line with implicit leadership theories. Moreover, if leadership behaviors and leadership effects are as strongly intertwined by implicit leadership theories as suggested for explicit appreciating behavior and the feeling of being appreciated, researchers will have difficulty in empirically distinguishing the actual behavior from its effects. In questionnaire studies, this observer error is further intensified by the observer's need to answer consistently (Podsakoff & Organ, 1986): accordingly, observer would unconsciously refrain to report the feeling of being appreciated and in the same time no appreciating behavior, even if they were originally observing these inconsistent observations.

As a result of these methodological problems, contemporary leadership behavior theories have failed to empirically establish precise causal models (van Knippenberg & Sitkin, 2013).[2] If the behavioral concepts cannot be distinguished empirically from each other, their differentiated effects cannot be distinguished either. Furthermore, if the behaviors cannot be distinguished from behavior perceptions and other important leadership effects, precise causal models cannot be established. Finally, researchers risk misinterpreting correlations between behavior perceptions and leadership effects as the causal effect of leadership

[2] As van Knippenberg and Sitkin (2013) offer a detailed discussion on the theoretical limitations of current leadership theories, we also only summarize their point here. Readers are invited to consult the original work.

behaviors (van Knippenberg & Sitkin, 2013), thereby reestablishing the implicit leadership theories that created lay observers' expectations in the first place.

In summary, systematic observation errors have likely given rise to contemporary leadership behavior models that (1) overestimate the effects of desirable leadership behaviors, (2) blur distinctions between different leadership behaviors and overestimate overlaps, (3) misinterpret empirical relationships between leadership perceptions and leadership outcomes as the effects of leadership behaviors, and (4) fail to establish precise and valid causal models. All of these flaws have been criticized by leading scientists in the field (esp. van Knippenberg & Sitkin, 2013). Despite these important concerns, current behavioral leadership concepts are not irrelevant (Lee et al., 2015). In fact, several behavior perceptions have been established as predictors of leadership effectiveness (Burke et al., 2006). However, it remains unclear which leadership perceptions are rooted in the respective leadership behaviors and which leadership perceptions are relevant but have other causes. Therefore, leadership perceptions could play an essential role in advancing our understanding of the mediating processes and moderating factors captured in causal models of leadership behavior (Lee et al., 2015). By contrast, the current hybrid use of leadership perceptions as proxies for both the predictive behaviors and the leadership outcomes threatens the validity of behavioral models of leadership.

Leadership behavior (perception) as the basis for theoretic integration

Burke et al.'s (2006) meta-analysis on leadership behavior research identified three leadership behavior perceptions that predicted leadership success best: (1) boundary spanning, (2) empowerment, and (3) transformational leadership. First, boundary spanning refers to the management of external relationships and encompasses three distinct leadership behaviors: (a) representation of the group's interests with powerful stakeholders, (b) coordination of work activities with the needs of external partners, and (c) accessing external resources, such as the information and expertise of external partners (Marrone, 2010). Second, empowerment is defined by its leadership effect on subordinates: an active orientation of the subordinate towards the work role in which the subordinate "wishes and feels able to shape his or her work role and context" (Spreitzer, 1995, p. 1444). Spreitzer (1995) identified two leadership behaviors as antecedents to empowerment: (a) providing access to information and (b) providing rewards that recognize individual contributions. Third, transformational leadership is a conglomerate of different behaviors perceived in effective leaders (Bass & Riggio, 2006). Avolio et al. (1999) established four behavioral factors that are observed in transformational leaders: (a) charisma, which incorporates perceptions of enthusiasm, power, confidence and ethical behavior, as well as focusing a collective mission, (b) intellectual stimulation, which incorporates behaviors that foster innovation and creativity such as suggesting new perspectives or re-examining assumptions, (c) individual consideration, which incorporates listening, developing and delegating behaviors, and (d) contingent reward, which incorporates behaviors that recognize and motivate individual contributions.[3] However, while each of the three leadership behavior perceptions significantly predicts leadership success, there are two major concerns.

First, the three behavior perceptions considerably overlap. For example, empowering and transformational behavior both include rewarding and recognizing behaviors. Second, the behavior perceptions are confounded with leadership effects. For example, charisma is defined by the leader's charismatic effect on his/her subordinates, who perceive the leader as an enthusiastic, powerful, confident and ethical role model. However, the behaviors that lead to this charismatic effect remain unclear.

DeRue et al.'s (2011) meta-analysis on leadership behaviors and traits replicates Burke et al.'s (2006) findings regarding the effectiveness of perceived transformational leadership behavior and establishes one additional behavior perception that correlates highly with group performance: initiating structure. Initiating structure includes behavior perceptions such as clarifying tasks, relationships, and expectations, as well as coordinating action (Judge, Piccolo, & Ilies, 2004). Although these behaviors are not specifically outlined in Burke's meta-analysis, several overlaps with Burke et al.'s (2006) behavioral categories can be identified upon closer scrutiny: 'clarifying relationships' overlaps with the boundary-spanning behavior 'access external resources' which includes behaviors to "understand the general environment" and identify "target actors" (Marrone, 2010, p. 918). Furthermore, 'clarifying tasks' provides subordinates with access to relevant information. Providing access to information was earlier identified as empowering behavior.

In summary, current meta-analyses have established four essential behavior perceptions that best predict leadership success: boundary spanning, empowerment, transformational leadership and initiating structure. However, the meta-analyses do not provide a comprehensive framework of consistent behavioral categories. Rather, they assemble different behaviors that overlap in an unsystematic manner.

In attempting integration, several authors have suggested comprehensive taxonomies of effective leadership behavior perceptions (e.g., DeRue et al., 2011; Yukl, 2012). As these taxonomies offer a structured overview of existing findings, they provide a valuable starting point for further theory development. Yukl's (2012) taxonomy is based on an extensive literature review and proposes four behavioral meta-categories comprising 15 component behaviors (see Table 1). Each component behavior is specified with detailed behavioral descriptions that are based on between seven and seventeen empirical studies. These empirical studies range from diary studies to laboratory and field experiments. To ensure internal validity, most of the studies are based on data from independent sources for behavior perception and leadership success. The four behavioral meta-categories integrate all behavioral concepts of the leadership models discussed above: task-oriented leadership behavior (integrates initiating structure behaviors), relations-oriented leadership behavior (integrates empowering and several transformational behaviors), change-oriented

[3] Although the model of transformational leadership does not assign *contingent reward* to the transformational behaviors, contingent reward is so highly correlated with the other transformational leadership behaviors (Avolio et al., 1999) Avolio et al. (1999)that it needs to be considered an integral part of transformational behavior.

Table 1
Yukl's (2012) taxonomy of leadership behavior that contains 4 meta-categories and 15 associated component 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

leadership behavior (integrates the remaining transformational behaviors), and external leadership behaviors (integrates boundary-spanning behaviors).

Yukl's (2012) taxonomy exhibits three strengths relative to previous leadership behavior models: (1) It includes detailed behavioral descriptions and abandons certain concepts that cannot be distinguished from their effects (e.g., charisma). (2) It integrates similar behavioral concepts from different models into one systematic taxonomy, thereby eliminating many overlaps among behavioral concepts. For example, Yukl's (2012) component behavior 'clarifying' integrates two previously overlapping behaviors: the empowering behavior 'providing access to information' and the initiating structure behavior 'clarifying tasks'. (3) It incorporates diverse research results and therefore constitutes a basis for generating an integrative model of leadership behavior. In particular, Yukl not only includes the four previously discussed behavior perceptions of boundary spanning, empowerment, transformational leadership, and initiating structure but also other behaviors that were established in various empirical studies as critical for leadership success (e.g., problem solving or wishful thinking).

Despite the significant advancements in the construction of a more parsimonious model of leadership behavior, Yukl's taxonomy fails to respond to criticisms that derive from systematic observer errors. As his taxonomy is based on the available empirical research, it primarily integrates studies that relied on lay observers. As a consequence, Yukl does not fully differentiate between behaviors and their perceptions. This lack of differentiation becomes obvious in several behavior descriptions that cannot be measured independently of their consequences: "plans that are superficial or unrealistic", "types of monitoring that are intrusive, excessive, superficial, or irrelevant", "false assumptions", or "advocating a costly major change when only incremental adjustments are necessary" (Yukl, 2012, pp. 70–73). These behavioral descriptions are subjective, as they are rooted in the perception of the observer and can only be measured post-hoc, when the generated effect can be evaluated. Therefore, Yukl's taxonomy is fraught with some of the problems outlined in the previous sections. In particular, it does not offer clear guidance on how several particular leadership behaviors ought to be categorized.[4] Although empowerment, for example, is defined as a separate component behavior, negative empowering behaviors are included in the descriptions of other components (e.g., micromanaging represents negative clarifying, excessive monitoring represents negative monitoring, discouraging input represents negative problem solving). These overlaps even span different meta-categories, suggesting that the meta-categories require more rigorous definition and further conceptual delineation. We argue that empowering behaviors are related to an interaction style, whereas other behaviors pertain to the content of the interaction. Be it through the content of a conversation, the initiation of change or relationships with an external partner, leaders may act in an empowering manner by providing their subordinates with influence or even autonomy with respect to the topic at hand. Defining empowering behavior as an interaction style that can be exhibited in various contexts provides a solution to avoid this overlap. Therefore, a comprehensive new theory needs to embed the separate meta-categories and component behaviors within a coherent framework and define their interrelationships.

Taken together, Yukl's taxonomy provides a comprehensive, well-structured overview of behaviors perceived in successful leaders. However, it does not fully overcome the problems of observation biases and the confusion of behavior with behavior perception. In this paper, we therefore attempt to circumvent these problems by consulting psychological theories outside of the core leadership literature.

The essence of leadership as a guidepost for theory construction

The essence of leadership is defined as "influencing and facilitating individual and collective efforts to accomplish shared objectives" (Yukl, 2012). This definition posits three entities: the leader, the tasks that are to be accomplished and the followers who are to invest their efforts (Bennis, 2007; Drath et al., 2008). In other words, leadership behavior should essentially be (1) task-

[4] For example, the behavior *assigning tasks* is assigned to the two components of planning and clarifying; the specific behavior *identifying potential problems, risks or threats* is assigned to the three components of external monitoring, advocating change and problem solving; the specific behavior *building confidence* is assigned to the three components of developing, supporting and envisioning change.

oriented and (2) relations-oriented. The dichotomy of these two meta-categories of leadership-behavior has been at the root of many leadership theories and taxonomies for more than 60 years (Fleishman, 1953; Halpin & Winer, 1957; House, 1971; Likert, 1961; Misumi & Peterson, 1985; Yukl, 2012).[5]

In embedding these two leadership behavior meta-categories into a comprehensive theoretical framework, one must specify (1) the process of accomplishing joint objectives and (2) the relationships that lead to the investment of individual and collective effort. Based on these requirements, two streams of psychological research are consulted for theoretic integration: (1) motivation and action theories that describe and explain the process of how individuals establish and accomplish their objectives and (2) group and engagement research that identifies the conditions under which individuals invest their resources in a group's endeavor (see Table 2). Based on these two research streams, we derive a new integrative model of leadership behavior that sharpens the concepts, reduces their overlaps, reveals relationships between the concepts, and considers a broad body of research outside the core leadership literature. Table 2 provides an overview of the psychological theories employed to develop the model.

Task-oriented leadership behavior – substantiated by motivation and action theories

Task-oriented leadership behavior directly supports the process of accomplishing shared objectives. Motivation and action theories – among which expectancy-value theories are the most frequently investigated (Beckmann & Heckhausen, 2008; Fishbein & Ajzen, 1975) - specify how humans establish and achieve objectives. Expectancy-value theories assert that the motivation to strive for a certain objective depends on the personal value of the accomplished objective multiplied by the perceived likelihood that this objective can be attained. Heckhausen and Gollwitzer (1987) further developed and validated this general assumption by presenting evidence that humans' cognitive functioning changes once they make a decision. Before the decision, their thoughts are preoccupied with values and expectations. Postdecisional thoughts, however, center on implementation. This observation led to the Rubicon model (Achtziger & Gollwitzer, 2008). The Rubicon model characterizes a so-called 'course of action' in four phases: (1) evaluation, (2) deliberation, (3) planning and (4) action.[6] Each of these four phases is delineated by a specific end-state: (A) intention deliberation, (B) intention formation, (C) intention initiation, and (D) intention realization.

Based on the Rubicon model, we suggest three task-oriented behavior categories that support the process of accomplishing objectives: (1) enhancing understanding in the evaluation phase, (2) strengthening motivation in the deliberation phase, and (3) facilitating implementation in the planning and action phase. The model does not assign a separate leadership behavior to the action phase because actions are typically performed by followers rather than by the leaders themselves.

Enhancing understanding

The first task-oriented leadership behavior category 'enhancing understanding' supports the evaluation phase. The evaluation phase concerns the evaluation of prior actions and their results (Achtziger & Gollwitzer, 2008). The functions of the leadership behaviors in this phase are to provide relevant information, facilitate accurate assessments and elicit adequate beliefs that foster well-adjusted behavior in the future.

According to the Rubicon model, the successful execution of the evaluation phase requires an accurate and impartial assessment of the current situation (Achtziger & Gollwitzer, 2008) to facilitate appropriate behavior. Stiensmeier-Pelster and Heckhausen (2008) have demonstrated that evaluations of past actions affect future action, including its intensity, speed of execution and persistence. This impact is mediated by causal attributions (Weiner, 1985) and the resulting beliefs concerning success-relevant factors (Ajzen, 1991). According to the attributional theory of motivation and emotion (Weiner, 1985), individuals assess the causes of all important, unexpected or negative events with respect to five properties: locus (who/what caused it), stability over time, globality over different situations, controllability, and intentionality. According to the theory of planned behavior, the resulting beliefs that attribute the event to a cause influence subsequent behavior: "It is these salient beliefs that are considered to be the prevailing determinants of a person's intentions and actions." (Ajzen, 1991, p. 189). The relevant beliefs assert contingencies among important factors, one's own behaviors, and other relevant actors in the situation at hand. According to the theory of planned behavior, these beliefs originate from direct observation, inferences based on experience or logic, and information from others (Fishbein & Ajzen, 1975).

According to these well-established motivation and action theories, the leadership behavior category 'enhancing understanding' consists of the following behaviors: (1) evaluating prior actions and their results, (2) attributing the results to causes, (3) providing information and (4) inferring beliefs regarding the situation at hand, the situation's supporting and hindering factors and actors, and their contingencies.

Strengthening motivation

The second task-oriented leadership behavior category 'strengthening motivation' supports the deliberation phase. This phase involves deliberating objectives and deciding which objective(s) to pursue (Achtziger & Gollwitzer, 2008). The functions of

[5] Different authors have labeled these two categories differently – for example, job-centered' and 'employee-centered' Likert (1961) or 'initiating structure' and 'consideration' (Fleishman, 1953; Halpin & Winer, 1957). The labels task-oriented and relations-oriented prescribe the direction of behavior rather than a concrete behavior that should be executed (vs. consideration) and are least context-specific (vs. job-centered) (Yukl, 2012).

[6] In practice, the four phases are iterative: The action phase is followed by a renewed postactional evaluation phase and so forth. However, any theoretical model must establish a starting point in the iterative process. The original Rubicon model begins with the deliberation phase and ends with the postactional evaluation phase. The starting point proposed here better conforms to the domain of leadership, as the four phases lead to goal accomplishment.

Table 2
Research bodies consulted for the construction and proliferation of the integrative model of leadership behavior (IMoLB).

Leadership behaviors	Integrated research bodies	Main references
Task-oriented leadership behavior	Rubicon model	Heckhausen and Gollwitzer (1987) Achtziger and Gollwitzer (2008)
1) Enhancing understanding	-Rubicon model -Attributional theory of motivation and emotion -Theory of planned behavior	Achtziger and Gollwitzer (2008) Weiner (1985) Ajzen (1991); Fishbein and Ajzen (1975)
2) Strengthening motivation	-Rubicon model -Theory of planned behavior	Achtziger and Gollwitzer (2008) Ajzen (1991)
3) Facilitating implementation	-Rubicon model -Implementation plans -Flow	Achtziger and Gollwitzer (2008) Milne et al. (2002) Csikszentmihalyi (1975)
Relations-oriented leadership behavior	Ringelmann effect	Ingham et al. (1974)
1) Fostering coordination	-Procedural statements -Coordination in decision making -Standardization	Kauffeld and Lehmann-Willenbrock (2012) Wilson and Rhodes (1997) Muenstermann et al. (2010)
2) Promoting cooperation	-Social loafing -Job Demands-Resources-Model -Empowerment	Karau and Williams (1993) Bakker and Demerouti (2007) Spreitzer (1995)
3) Activating resources	-Self-efficacy -Group identity perspective -Resource activation -Positive reinforcement	Bandura (1977) Ellemers et al. (2004) Grawe (1998) Estes (1944)

leadership behaviors are to deliberate the consequences of possible objectives, weigh the desirability of the consequences, and strengthen the objectives that are in the shared interest to foster appropriate decisions.

According to the Rubicon model, the primary task in the deliberation phase is to transform desirabilities into objectives "with a firm sense of commitment to [the objectives'] enactment" (Achtziger & Gollwitzer, 2008, p. 274). Such affirmed objectives are called intentions. With respect to leadership, it is crucial that the intentions support the shared goals that are to be accomplished. Therefore, the leader should strengthen the motivation to pursue shared goals and individual goals that support the shared goals (see also Karau & Williams, 1993).

Based on the theory of planned behavior (Ajzen, 1991), researchers have demonstrated that the following multiplicative factors predict motivation: (1) the probability that a behavior creates a consequence, (2) the value of that consequence, (3) the likelihood that relevant others approve or disapprove of the behavior, and (4) the motivation to comply with those relevant others. An empirical analysis of the factors established a prediction of $R > 0.79$ for three different behaviors (Ajzen, 1991).[7] Furthermore, researchers have demonstrated that the resulting motivation significantly predicts the choices of alternative behaviors, the probability of executing a behavior, the effort devoted to the behavior and the resulting behavioral performance (Fishbein & Ajzen, 1975).

In summary, the leadership behavior category 'strengthening motivation' consists of the following behaviors: (1) deliberating possible objectives and their consequences, (2) weighing the desirability of the alternative objectives, (3) deriving concrete intentions and (4) strengthening the motivation to pursue shared goals and individual goals that support the shared goals by focusing on the value of positive consequences, approval by relevant others and the motivation to comply with these relevant others.

Facilitating implementation

The third task-oriented leadership behavior category 'facilitating implementation' supplements the planning and action phase. The planning phase is concerned with determining "how to best go about attaining the chosen goal" (Achtziger & Gollwitzer, 2008, p. 275). The ensuing action phase focuses on the execution. The functions of the leadership behaviors are to form appropriate plans for implementation, identify the best opportunities for execution and facilitate successful behavioral execution to promote intention realization.

According to the Rubicon model, leaders should support their followers in the planning phase to transform objectives into concrete implementation plans that specify the what, where, when, and how (Achtziger & Gollwitzer, 2008; Lehmann-Willenbrock, Meinecke, Rowold, & Kauffeld, 2015; Santos, Caetano, & Tavares, 2015). These implementation plans have been demonstrated to facilitate behavioral execution and the accomplishment of objectives (e.g. Milne et al., 2002; Sheeran & Orbell, 1999) because they help overcome anticipated obstacles. Implementation plans specify the appropriate routine behaviors, necessary deliberate

[7] The theory of planned behavior includes the four above-cited factors and two additional factors: (5) the likelihood of controlling helpful resources and of hindering obstacles, and (6) the influence of these resources or obstacles. These two additional factors are sub-factors of self-efficacy (Bandura, 1977). As self-efficacy is a powerful predictor not only of motivation but also of successful action and healthy evaluations, self-efficacy-related behaviors are included in a more general leadership behavior category not specific to any one phase (see 'Activating resources' section).

behaviors or behaviors that need to be newly acquired. Furthermore, the implementation plans clarify how to access the resources and gain the support from others necessary for successful implementation.

According to Achtziger and Gollwitzer (2008), procrastination and overlooking viable opportunities constitute frequent pitfalls in the planning phase. To avoid those pitfalls, leaders should support their followers in seeking the appropriate opportunity to execute their plans. The required implemental mindset is characterized by intense and focused information seeking to ensure that the sought opportunity is identified and distractions are avoided. Research has demonstrated that an implemental mindset increases the ability to adapt to changing conditions (Pösl, 1994), behavioral persistence (Brandstaetter & Frank, 2002), and task performance (Armor & Taylor, 2003). In the action phase, leaders should support their followers in steadfastly executing their plans despite potential obstacles and in increasing efforts in the face of difficulties (Achtziger & Gollwitzer, 2008). The recommended actional mindset is characterized by focused absorption (Csikszentmihalyi, 1975) to ensure focus on cues that guide the intended action and to avoid distraction.

Summarizing these action theories and research results, the leadership behavior category 'facilitating action' consists of the following behaviors: (1) forming implementation plans and plans for overcoming obstacles, (2) acquiring resources and gaining support, (3) developing skills, (4) identifying opportunities for implementation and (5) activating, focusing and guiding implementation.

The process of task-oriented leadership behavior

To sum up, task-oriented leadership behavior supports the process of accomplishing objectives by enhancing understanding in the evaluation phase, strengthening motivation in the deliberation phase and facilitating implementation in the planning and action phase. The individual leadership behaviors should be beneficial if applied in the correct phase but could be counterproductive if applied in the incorrect phase. For example, leaders who provide new information on alternative objectives in the action phase risk distracting their followers from focused implementation, while the same behavior might accelerate intention formation if executed in the deliberation phase. Furthermore, even the best implementation plan might fail to have the intended effect if the followers have yet to develop an intention to support the objective. Therefore, successful leaders need to time their behavior according to the phases of the course of action. As a consequence, leaders should ensure that the defined end state of a given phase has been reached before adjusting their behavior to the next phase.

Relations-oriented leadership behavior - substantiated by group and engagement research

Relations-oriented leadership behavior influences other individuals such that they invest their efforts in the process of accomplishing objectives. Group and engagement research has investigated the conditions under which individuals are most likely to invest their efforts. One of the most puzzling findings in group research is the Ringelmann effect, which was first identified in Ringelmann's rope-pull experiment: Groups do not exploit the full potential of their combined effort, which in this case corresponds to the sum of each individual's performance (Ingham et al., 1974). Groups have a weaker pull, generate fewer ideas, or identify fewer targets than the sum of their members' individual outputs (Karau & Williams, 1993). This loss has been attributed to two causes: insufficient coordination and suboptimal engagement (Ingham et al., 1974; Karau & Williams, 1993). Thus, leader behavior should increase (1) collective coordination and (2) individual engagement.

Based on group and engagement research, relations-oriented leadership behavior consists of three behavior categories that lead to effective follower engagement in the process of accomplishing objectives: (1) fostering coordination to synchronize efforts, (2) promoting cooperation to encourage greater individual contribution, and (3) activating resources to expand valuable contributions.

Fostering coordination

The relations-oriented leadership behavior category 'fostering coordination' addresses the loss of coordination in groups. Using the analogy of the rope-pull paradigm, coordination prevents group members from pulling in different directions or at different times (Ingham et al., 1974). In the context of a team meeting, for example, leaders need to prevent group members from simultaneously speaking about different topics. The function of leadership behavior is to coordinate collective efforts to create the basis for well-adjusted individual contributions.

While coordination has received less research attention than engagement, the literature nevertheless offers insights into the conditions for effective coordination in groups across three levels of time. First, leaders need to coordinate the ad-hoc behavior of their followers. For example, Kauffeld and Lehmann-Willenbrock (2012) identified coordinating statements in team discussions as behavior that is crucial for a discussion's success: the so-called procedural statements clarified the timing (the when), the procedure itself (the what) and the shared direction within the discussion. The quantity of these coordinating statements predicted organizational success at $r = 0.51$. In a similar vein, the meta-analysis of Mesmer-Magnus and DeChurch (2009) identified 'structured discussion' as a predictor of enhanced information sharing and as a mediator of group performance. Taken together, procedural statements and a clear structure of the discussion align the ad-hoc behavior of followers to the situation at hand.

Second, leaders need to ensure coordination among their followers that continues once the leaders are no longer present. Wilson and Rhodes (1997) identified the leaders' declaration of the group's intended decision as a predictor of group coordination in decision-making. The announcement of decisions by the leader coordinated follower behavior, despite the follower behavior being no longer visible to the leaders. Similarly, contemporary organizations widely employ the communication of decisions to sustain behavioral coordination without permanent supervision. Because in real situations decisions are not a given, they have

to be made before being communicated. This explains the designation of decision-making by Levine and Moreland (2006, p. 189) as "one of the most important activities that groups perform".

Third, organizations harness standardized processes that prescribe who does what, when and how to establish persistent coordinated behavior. Standardized processes are decisions that have been transformed into written, widely communicated and established prescriptions. As such, they are more durable but less flexible than ad-hoc decisions, which can be adapted to the situation at hand. Walter and Bruch (2010) identified the standardization of processes as a predictor of a productive organizational climate. Consequently, leaders can employ standardized processes to durably coordinate their followers' behavior and increase group performance (Muenstermann et al., 2010).

Beyond these three levels of time with respect to coordination, it is important to note that the effectiveness of coordination depends on the leader's credibility (Wilson & Rhodes, 1997), here operationalized as a high degree of certainty that the leader's decision is the best decision to follow. Moreover, according to the halo effect (Thorndike, 1920), human judgments are not fully analytical and rational; rather, they are biased towards the general impression of the person and topic at hand. Frequently, the first impression induces a general tendency to think positively or negatively, which prevails in all related judgments. Therefore, leaders are well advised to convey personal certainty and competence when they announce a decision or foster coordination in another way.

Summarizing these group research results, the relations-oriented behavior category 'fostering coordination' consists of the following behaviors: (1) communicating the procedure explicitly and maintaining the structure of communication, (2) ensuring and communicating decisions, (3) employing standardized processes and (4) conveying personal competence and certainty while doing the above.

Promoting cooperation

The relations-oriented leadership behavior category 'promoting cooperation' addresses the collective loss of effort by promoting engagement in groups. In terms of the rope-pull paradigm, promoting cooperation establishes the experience that every group member's unique contribution is indispensable, and hence everyone needs to pull the rope with maximum strength (Ingham et al., 1974). The functions of leadership behaviors are to allow every group member to contribute his or her unique competence and to convince the group members that their maximum effort is necessary to accomplish the shared objectives.

Social loafing refers to the phenomenon whereby individuals reduce their efforts when working in a group. A meta-analysis by Karau and Williams (1993) identified several factors that reduce and even eliminate social loafing: individuals perceiving their individual contributions to the group to be known, visible, unique, indispensable, or intrinsically interesting. Thus, leaders should emphasize (1) the necessary individual contributions, (2) the uniqueness of these contributions and (3) the indispensability of these contributions for group progress. Furthermore, leaders should (4) ensure that tasks are assigned based on personal interest. The first three aspects are in line with meta-analytic results regarding information sharing (Mesmer-Magnus & DeChurch, 2009) that established the uniqueness of individual contributions and openness in sharing information as predictors of group performance.

The importance of the fourth aspect - personal interest - is also supported by meta-analytical evidence (Crawford, LePine, & Rich, 2010). Work-role-fit has been established as the most important predictor of engagement, emphasizing the importance of assigning tasks not only according to personal interest but also according to personal competence. This concept is extended by empowerment theory (Spreitzer, 1995): One of the defining components of empowerment is meaning, that is, the individual's evaluation of work tasks as meaningful according to his or her values. Therefore, when assigning tasks, leaders should consider work-role-fit according to followers' personal interest, competences, and values.

Regarding individual tasks, empowerment has been established as one of the most powerful predictors of individual and organizational performance (Burke et al., 2006; Chen, Kirkman, Kanfer, Allen, & Rosen, 2007). According to empowerment theory (Amundsen & Martinsen, 2014; Spreitzer, 1995), leaders should strengthen the personal experience of self-determination and allow subordinates to affect collective outcomes. In a similar vein, in their Job Demands-Resources-Model (JD-M) Bakker and Demerouti (2007), established that personal autonomy increases engagement on the job. Consequently, leaders should permit autonomy in individual tasks, permit influence in collective decisions and emphasize autonomy in the group.

Social support completes the leadership-behavior category 'promoting cooperation'. Social support is the second factor of the JD-M that increases engagement (Bakker & Demerouti, 2007; Christian & Slaughter, 2007; Crawford et al., 2010). Thus, leaders should not only encourage individuals to contribute to the group's overall progress but also foster mutual support among group members.

According to these group and engagement theories and research results, the relations-oriented behavior category 'promoting cooperation' consists of the following behaviors: (1) encouraging individual contributions to the group's progress, (2) underlining these individual contributions and their uniqueness and indispensability to and effect on collective progress, (3) encouraging and offering social support, (4) delegating individual tasks based on comprehensive work-role-fit regarding interests, competence, and values and (5) permitting autonomy in tasks to allow for self-determination.

Activating resources

The third relations-oriented leadership behavior category 'activating resources' also addresses the promotion of engagement in groups but by creating positivity regarding intended behaviors and outcomes. To employ the analogy of the rope-pull paradigm, activating resources fosters stronger pulling at the right moment and in the right direction by creating a "Yes, we

can"-atmosphere, by rewarding and shaping intended contributions. In general, leaders should foster valuable contributions by enhancing personal self-efficacy, strengthening a positive group identity and rewarding valuable contributions.

Self-efficacy is defined as the expectation "that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p. 193). Self-efficacy is crucial in all task-oriented phases of the accomplishment of objectives: leaders who enhance the self-efficacy of their followers will foster evaluations that promote engagement (Stiensmeier-Pelster & Heckhausen, 2008; Weiner, 1985), strengthen follower motivation (Ajzen, 1991), and facilitate successful action[8] (Linnenbrink & Pintrich, 2003; Schunk, 1982; Taylor & Brown, 1994). In empowerment research, self-efficacy has been established as a predictor of group effectiveness (Spreitzer, 1995). As self-efficacy is most powerful if it is behavior-specific (Pajares, 1996), leaders should particularly increase self-efficacy in specific intended behaviors. Note that increasing self-efficacy does not create new behavioral competences per se. However, self-efficacy increases confidence, and thus valued objectives are pursued by executing available behaviors that are suitable. In this sense, increasing self-efficacy activates pre-existing resources by creating positivity regarding the intended behaviors.

Bandura (1977) identifies four self-efficacy enhancers: verbal persuasion, emotional arousal, personal accomplishments, and vicarious success. Accordingly, leaders should first verbally persuade their followers to believe in their success by suggestion, exhortation or instruction. Second, leaders should induce positive emotions via positive attributions or imagining positive experiences. Third, leaders should highlight followers' accomplishments. Fourth, leaders should praise the accomplishments of relevant others in a vicarious manner. The positive feedback provided by highlighting and praising accomplishments not only constitutes Bandura's factors three and four, but feedback also constitutes the third major factor in the JD-M (Bakker & Demerouti, 2007). Accordingly, current meta-analyses have established feedback as a driver of engagement (Christian & Slaughter, 2007; Crawford et al., 2010).[9] Therefore, leaders enhance self-efficacy and engagement if they highlight the positive in the group: providing feedback on its past accomplishments and its current strengths as well as anticipating its future successes.

According to Ellemers et al. (2004), highlighting shared positive characteristics of the group fosters group identity and thereby engagement with the group's objectives. Karau and Williams' meta-analysis (1993) demonstrates that a strong group identity eliminates social loafing. In the event of success, the positive evaluation of the group enhances the self-evaluations of individual members. The social identity perspective (Ellemers et al., 2004 describes conditions that increase individuals' identification with a group. This involves a positive distinction of the group from other collectives, the focus on shared attributes of its members, and to create concern and a positive outlook regarding collective power losses or gains.

Creating positivity regarding existing resources has another advantage: While destabilizing dysfunctional behavior is complex, strenuous and often unsuccessful (Caspar, Rothenfluh, & Segal, 1992), strengthening functional behavior, broadening its use and increasing the probability of its execution can lead to immediate success. This process is called resource activation (Grawe, 1998). Resource activation has been demonstrated to work more quickly and successfully than any other behavior in the personal development of patients (Flückiger, Frischknecht, Wüsten, & Lutz, 2008; Grawe, 1998) and coachees (Behrendt, 2006). These results are supported by the finding that positive reinforcement builds, promotes and shapes behavior more sustainably than punishment (Estes, 1944; Podsakoff, Bommer, Podsakoff, & MacKenzie, 2006) while triggering considerably fewer adverse effects (Azrin & Holz, 1966).[10]

According to these theories and research findings, the relations-oriented behavior category 'activating resources' consists of the following behaviors: (1) suggesting or instructing self-efficacy, (2) highlighting positive experiences, past successes, and feasible future accomplishments, (3) focusing positive attributes of individuals and the group as a whole, (4) fostering the expectation to collectively divert impending power losses or to achieve power gains and (5) rewarding and recognizing to call forth and shape future valuable contributions.

The process of relations-oriented leadership behavior

In summary, relations-oriented leadership behavior increases engagement in groups by synchronizing collective efforts and increasing the likelihood of appropriate contributions (fostering coordination), by encouraging more individual contributions (promoting cooperation) and by activating resources to expand valuable contributions. These leadership behaviors should be especially potent if applied in the suggested order. For example, leaders who encourage numerous contributions without an established coordinating structure risk chaos (missing prior coordination). In a similar manner, leaders risk losing credibility if they recognize the contributions of individuals who were previously discouraged from contributing (missing prior cooperation). Therefore, just as meetings should begin with an agenda that guides the process of discussion, leadership should begin with fostering a coordinating structure that allows for individual contributions that in turn form the basis for recognizing the most valuable contributions. Nevertheless, this inherent order should not be misunderstood as confined phases or be imposed rigidly.

[8] Self-efficacy is a determinant of "whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences" Bandura (1977, p. 191).

[9] Feedback in the JD-M addresses the individual need for competence (Bakker & Demerouti, 2007).

[10] Punishment in human practice has been criticized for triggering the following adverse effects: negative emotional reactions, decreased concentration, decreased performance, impaired personal relationships, increases in the punished behavior when the punisher is not present, and observational learning that increases the aggressive behavior of the punished individual. Note that leaders can enforce valuable behaviors through positive or negative reinforcement. In the latter case, leaders would relieve an adverse stimulus (e.g., a stressful task).

Integrative model of leadership behavior - IMoLB

Fig. 1 illustrates the integrative model of leadership behavior that is based on psychological theory and includes six distinct categories of leadership behaviors. Leadership behavior ought to be (1) task-oriented to support the accomplishment of objectives and (2) relations-oriented to influence the followers such that they invest their efforts into the task-oriented process. Accordingly, the task-oriented behaviors directly contribute to the accomplishment of objectives, while the relations-oriented behaviors indirectly support this process by providing followers' resources.

As mentioned earlier, task-oriented behavior is only relevant in its specific phase of the course of action: 'enhancing understanding' in the evaluation phase, 'strengthening motivation' in the deliberation phase and 'facilitating implementation' in the planning and action phase. By contrast, the relations-oriented leadership behaviors are not phase-specific: for example, coordinating decisions, engaging contributions and demonstrations of self-efficacy are needed in the evaluation phase, the deliberation phase and the planning phase. Task-oriented and relation-oriented leadership behaviors further differ with regard to their target. While task-oriented leadership behaviors pertain to the content of communication, relations-oriented leadership behaviors pertain to the interaction style. For example, when discussing an implementation plan (content), the leader can lead the discussion in a well-coordinated manner, encouraging individual contributions, and in a confident and appreciative manner that highlights the positive (interaction style).

Discussion of IMoLB's theoretical value

Each new theory needs to provide evidence of adding substantial value to the research area that it was made for. Following the criteria of a good theory suggested by Filley et al. (1976) this section will discuss and critically evaluate the integrative model of leadership behavior with regard to the following desirable qualities: (1) generality, (2) external consistency and parsimony, (3) internal consistency and (4) testability.

Generality

The criterion of generality refers to a theory's "wide range of application" and its "extension of the field of knowledge" (Filley et al., 1976, p. 22). IMoLB spans a broad range of existing theories (see Table 2 for an overview). Given that the validity of those theories has been established in various contexts outside the core leadership literature, IMoLB is a theory of broad generality by origin. In contrast to other current leadership theories, the validity of the integrative model should therefore not be bound to specific contexts (such as hierarchical vs. shared leadership), to specific leader personalities (charismatic vs. non-charismatic), to specific (transformational) challenges, nor to specific (ethical) expectations of the followers.

External consistency and parsimony

The criterion of external consistency refers to a theory's consistency "with observations and measures of real life". The criterion of parsimony refers to a theory's minimal complexity to accurately account for real life phenomena (Filley et al., 1976, p. 22). When integrating existing models into a new framework, the challenge is to stay consistent, while at the same time creating a higher level of parsimony. As the criteria of external consistency and parsimony go hand in hand we discuss them jointly in this section. Being based on established psychological theories, IMoLB is consistent with a large body of research outside the core leadership community. In addition, the model integrates existing models and meta-analytical findings on leadership behavior (see sections above; Avolio et al. (1999); Burke et al. (2006); DeRue et al. (2011); Judge et al. (2004); Marrone (2010); Spreitzer (1995); Yukl (2012)). Given that Yukl's taxonomy provides the most comprehensive and integrative overview of current leadership behavior research, it will serve as the gold standard to which IMoLB is compared.

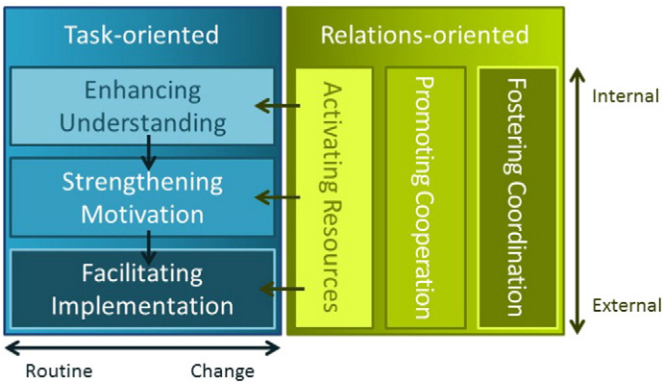

Fig. 1. Integrative model of leadership behavior (IMoLB).

IMoLB has reduced the number of meta-categories suggested by Yukl (2012) from four to two. Yukl's meta-categories of change-oriented and external leadership behaviors are integrated by introducing two continuums: (1) Task-oriented behaviors can be oriented towards tasks that are change- vs. routine-related, depending on the type of objective that is to be accomplished. We argue that IMoLB's three task-oriented leadership behavior categories cover Yukl's change-oriented leadership behaviors. 'Advocating change' enhances the understanding of the current situation and of prevailing risks and further strengthens the motivation for change. 'Envisioning change' directly strengthens the motivation for new behaviors in a change-situation and can thus be classified as 'strengthening motivation'. Finally, 'encouraging innovation' and 'encouraging collective learning' describe behaviors that enhance a new understanding or facilitate new implementation plans. (2) Relations-oriented behavior can be directed towards individuals who are internal vs. external to the team. Indeed, many leadership endeavors include a core team of individuals, more distant in-house team members who are engaged in the endeavor to varying degrees as well as external individuals such as core customers. Thus, Yukl's external behaviors are accommodated in IMoLB: 'Networking' and 'representing', for example, promote cooperation and coordination with more external individuals to synchronize their actions with internal needs. Finally, 'external monitoring' is essentially task-oriented and enhances the understanding of the situation.

Taken together, IMoLB possesses high integrative power and meets the criteria of external consistency and parsimony. IMoLB integrates a broad set of fundamental theory and research within as well as outside of the leadership behavior literature while at the same time reducing the number of meta-categories from four to two and the number of behavioral categories from 15 to six.

Internal consistency

The criterion of internal consistency requires theories and the propositions they make to be "free of contradiction" (Filley et al., 1976, p. 22). For a model of leadership behavior, the main risks to internal consistency are rooted in overlapping or contradicting behavioral categories. IMoLB separates task-oriented from relations-oriented leadership behavior based on their different functions, namely accomplishing objectives vs. creating coordinated engagement. Furthermore, the three task-oriented behavior categories are separated by their phase-specificity, marked by phase-specific end-states. The three relations-oriented behavior categories are separated by their target (coordination vs. engagement) and their operating mode (promoting cooperation vs. creating positivity). As a consequence, one of the core elements of IMoLB is the theory-based distinction of categories.

Taking Yukl's taxonomy as the gold standard, the following sections illustrate two examples of how IMoLB resolves overlaps in behavioral categories: (1) Yukl's taxonomy includes the five negative behaviors 'micromanaging', 'excessive monitoring', 'discouraging useful input', 'allowing no real influence' and 'not involving followers' (Yukl, pp. 70–72). Although these behaviors notably share a common interaction style, they are spread across four component behaviors and two meta-categories. IMoLB, by contrast, consistently categorizes these negative behaviors as negative empowering behavior in the category 'promoting cooperation', corresponding to a failure to increase followers' autonomy (Bakker & Demerouti, 2007; Spreitzer, 1995) or a failure to increase impact on collective outcomes (Spreitzer, 1995). Instead of conceptualizing each of the behaviors separately according to their specific content, IMoLB highlights their common nature. IMoLB generally states the overarching importance of relations-oriented behaviors for all three action phases rather than duplicating similar relation-oriented behaviors in different categories. (2) Yukl's taxonomy (2012) assigns the same behavior of 'increasing confidence' to three different component behaviors: 'supporting', 'developing' and 'envisioning change'. This conceptualization does not only violate the criteria of parsimony and internal consistency, but it also neglects the fact that the behavior of 'increasing confidence' is directly affected by other component behaviors such as 'recognizing' (see Activating resources section). Recognition is a way of increasing self-efficacy (Bandura, 1977), which in turn directly elevates confidence. Based on this conceptual link, IMoLB classifies the behavior of 'increasing confidence' under the behavior category 'activating resources', thereby reducing the overlap between behavioral categories. The two examples demonstrate how IMoLB's theoretical foundation sharpens the distinction among categories. By reducing the overlap among distinct categories, IMoLB achieves higher internal consistency than previous models.

Testability

The criterion of testability requires the propositions and predictions of theories to be testable and thus falsifiable (Filley et al., 1976, p. 22). Good theories should therefore (1) provide detailed descriptions of concrete behaviors that can be tested with regard to their effect on desired leadership outcomes and (2) allow for the deduction of new hypotheses.

One of the main criticisms of earlier models of leadership behavior is that they do not distinguish leadership effects from their behavioral causes. For example, Yukl's taxonomy includes alleged behaviors such as 'negotiating agreements', 'influence to obtain resources' or 'building and maintaining favorable relationships' that focus on desired outcomes rather than describing the concrete leadership behaviors required to achieve them. It remains unclear how leaders can successfully negotiate an agreement, influence external stakeholders or build favorable relationships. Without a distinction between actual leadership behavior and its effects, the validity of models cannot be tested. While one might indeed find significant relationships between the proposed 'behaviors' and leadership success, such relationships are misleading as they describe the effect of leadership outcomes rather than actual behavior. In contrast, IMoLB provides a full range of concrete relations-oriented behaviors that can be used to successfully negotiate agreements, influence other people and build favorable relationships with external stakeholders.

In addition to distinguishing concrete leadership behaviors from leadership outcomes, IMoLB spurs new hypotheses that can be derived from established psychological theories. The Rubicon model (Achtziger & Gollwitzer, 2008), for example, suggests the following two hypotheses: (1) The phases of the course of action moderate the effectiveness of the three task-oriented

leadership behavior categories, such that 'enhancing understanding' is most effective in the evaluation phase, 'strengthening motivation' in the deliberation phase, and 'facilitating implementation' in the planning and action phase. (2) By contrast, the phases of the course of action do not moderate the effectiveness of the three relations-oriented leadership behavior categories, as each behavior is relevant in all phases.

In addition to the Rubicon model, each of the other theories central to IMoLB's development can be tapped to hypothesize moderators of effective leadership behavior. Theories on group-identity perspective (Ellemers et al., 2004) and self-efficacy (Bandura, 1977), for example, provide hints for potential moderating factors of recognition. Indeed, many leaders fear that individual recognition fosters the engagement of the recognized individual but creates frustration among jealous group members and reduces their engagement. IMoLB suggests 'collectivization' as one moderator of the effectiveness of individual recognition: if the recognized characteristics are framed as typical of the collective, the recognizing behavior is hypothesized to foster the group's engagement. This is less true where the recognized characteristics are framed as differentiating among group members. This assumption is based on the group identity perspective (Ellemers et al., 2004), which posits that highlighting shared positive attributes fosters engagement by strengthening group identity. Additionally, the highlighted vicarious success (Bandura, 1977) is more likely to increase engagement where a greater number of group members consider themselves to be similar to the praised individual.

Taken together, IMoLB's testability is ensured through its concrete behavioral propositions. IMoLB's is scientifically fertile in that it spurs new hypotheses that can be derived from theories that went into IMoLB. The successful realization of these advantages, however, depends on the development of new methods and experimental designs in order to prevent the model test from perpetuating current methodological flaws.

Outlook and empirical validation

To foster scientific advancement and avoid methodological flaws, it is crucial to employ and establish measurements that distinguish behavior from behavior perception. Based on this central aim and scientific best practices, we suggest the following changes to current leadership research methods[11]: (1) greater focus on experimental designs to separate correlational from causal effects, (2) development of more objective research methods such as video-analysis (van der Weide & Wilderom, 2004) or diary studies that measure behavior instead of subjective behavior perception via questionnaires (van Knippenberg & Sitkin, 2013), (3) implementation of longitudinal designs that separate short-term from sustainable effects, (4) analysis of various dependent variables that include objective data on leadership success in addition to subjective leadership behavior perception and leadership effectiveness ratings (Kaiser, Hogan, & Craig, 2008; van Knippenberg & Sitkin, 2013), and (5) implementation of both field and laboratory studies to ensure external and internal validity. Although the first two criteria are crucial for scientific validity, leadership behavior research that meets these two criteria is almost non-existent (Dinh et al., 2014). We invite the community to support the endeavor to move leadership behavior research beyond current standards, by outlining the most important next steps in the following sections.

A first phase of model tests should empirically validate IMoLB's foundation. First, these tests should establish the model's basic prediction that leaders are more effective if they perform behaviors from the six leadership behavior categories. Second, research needs to confirm the phase-specificity of task-oriented behavior and the phase-unspecificity of relations-oriented behavior. Third, the effectiveness of certain behaviors needs to be tested in routine- and change-oriented settings as well as in circumstances involving internal and external individuals.

A second phase of model tests should investigate the relationships among the leadership behaviors, the respective leadership behavior perceptions, other mediating processes and leadership outcomes. We argue that the behavior perceptions play an important role in mediating the effect of leadership behaviors on leadership success (Lee et al., 2015). The high predictive validity of behavior perceptions for a broad range of leadership outcomes substantiates that hypothesis (Burke et al., 2006; DeRue et al., 2011). However, a precise understanding of the causes of these well-established leadership perceptions would represent a cornerstone in the scientific advancement of leadership research. Furthermore, the theories incorporated in IMoLB could spur additional hypotheses concerning mediating processes, for example: (1) enhanced understanding, attributions and beliefs, (2) strong motivation and clear intentions, (3) concrete implementation plans, an implemental and actional mindset, (4) enacted coordination, clear decisions, established processes, and credibility, (5) cooperation, engagement, reduced social loafing, work-role-fit, realized empowerment, and social support, and (6) self-efficacy, group identity, and behavioral reinforcement.

A third phase of model tests should focus on testing moderating factors that explain situation-specific behavior effectiveness. For example, we have suggested that collectivization is likely to moderate the leadership effect of individual recognition on group performance. We are confident that the psychological theories on which IMoLB is based can spur fertile hypotheses regarding many other circumstances or practical leadership challenges.

As highlighted before, the success of all three phases depends on methods that clearly distinguish between different leadership behaviors and leadership outcomes. Indeed, using currently available questionnaire measures with substantial factor intercorrelations would obscure relationships and thus impede IMoLB's and other leadership behavior models' sound investigation. To overcome these challenges, the leadership research community should prioritize the development and thorough validation of new leadership behavior measurements, with the aim of better distinguishing leadership behavior from leadership perception. Such

[11] See Yukl (2012) for similar calls

measurements need to be thoroughly scrutinized with respect to their objectivity and divergent validity. To free measurements from pervasive observer errors (e.g., the halo effect), it is necessary to go beyond convenient survey approaches and to take approaches that are more proximate to actual behavior, such as video-based behavior analysis.

Summary: does IMoLB deliver on its promises?

IMoLB has been shown (1) to possess high generality (2), to consistently integrate important taxonomies and concepts of leadership behavior while being more parsimonious, (3) to have higher internal consistency by demarcating leadership behavior categories and by establishing clear relationships among these categories and (4) to provide a testable framework that exploits a wealth of fundamental research and spurs new hypotheses on effective leadership behaviors and their moderators and mediators. Taken together, IMoLB meets the criteria of a good theory and thus provides a valuable starting point for the development and empirical validation of new theories on leadership behavior.

Conclusion

Important flaws in leadership behavior research have long been neglected and critical voices remain a minority. Consequently, "we know much less about how leaders make organizations effective than how leaders are perceived" (Dinh et al., 2014, p. 37).

IMoLB is proposed as a first step in overcoming this predicament by providing a comprehensive framework that spans key aspects of leadership behavior. There have been critical voices, however, arguing that grand theories are too broad and shallow to add any real value to the discussion of leadership effectiveness. Indeed, many researchers agree that the current grand theories have not lived up to their expectations (Zitate: Dinh et al., 2014; van Knippenberg & Sitkin, 2013). However, abandoning grand theories altogether would also abandon one essence of scientific advancement, namely the parsimonious accumulation and integration of evidence across different studies, methods and disciplines. Grand theories also have a heuristic value to stimulate new research and provide a common language for researchers in the field to discuss, compare and evaluate their findings. This does not only provide orientation and facilitate coordination and cooperation in an increasingly complex field, but also limits the risk of conceptual overlaps and 'reinventing the wheel' by producing an overabundance of co-existing theories. In our opinion, comprehensive theories such as IMoLB are an essential tool in advancing leadership behavior research to the next level, and we believe that improving on comprehensive theories is a promising joint endeavor.

We suggest that IMoLB has the advantage of being broad and comprehensive as well while rich in detail, thereby counteracting the criticism of grand theories as being too shallow to be empirically testable. IMoLB provides detail, specificity and concreteness at all sub-levels, because it is grounded in existing psychological theory and therefore taps a wealth of validated theories for leadership behavior research. While IMoLB integrates established leadership behavior perceptions, it is also a fine-grained theory that offers numerous 'sub-theories' on all levels of the grand theory. Rather than coming up with an ever increasing number of new theories and ad hoc hypotheses, IMoLB encourages a guided and joint advancement of leadership behavior that is driven by the entire community rather than separated research groups and disciplines.

Taken together, we hope that IMoLB will encourage other researchers to join in the effort of advancing leadership theories and methods beyond the status quo. Our hope is that IMoLB in conjunction with valid measurements will spawn renewed scientific fertility regarding the question of what actual leadership behaviors cause the well-established leadership behavior perceptions and relevant leadership outcomes.

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