

Leadership Development: An Outcome-Oriented Review Based on Time and Levels of Analyses

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Online Video: Developing Your Leaders: Linking Short-Term Change to Long-Term Success

Keywords

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Abstract

Contemporary organizations face critical challenges associated with possessing and leveraging leadership capabilities. Researchers studying leadership development have responded to this practical imperative, although research on the topic is still in the early stages of scientific development. In assessing the state of the science in leadership development, we review an array of theoretical and research approaches with the goal of stimulating thoughtful intellectual discourse regarding fundamental questions, such as, what is leadership, and what is development. We highlight the breadth of this phenomenon by reviewing theory and research that has considered the development of leadership in individuals, dyads, and teams/organizations. Additionally, we describe a set of proximal and distal signs that indicate leadership may be developing, and we promote experiences, interventions, and interactions as factors that enhance the leadership development process.

INTRODUCTION

Recent survey findings based on responses from more than 2,500 business and human resource leaders in 94 countries indicate that broadening, deepening, and accelerating leadership development at all levels are the top priority for organizations, with 86% of respondents reporting this need as “urgent” or “important” (Schwartz et al. 2014). Surveys by CEB (2013) of over 3,500 leaders across 50 organizations found that two-thirds of senior leaders thought that the leadership development practices in their organizations were broken. At the same time, the demand for global leadership is growing, especially in emerging economic markets, while the supply of experienced leaders is shrinking due to retirements in more mature markets (Silzer & Dowell 2010). These survey findings and labor market dynamics suggest a leadership development imperative to accelerate the development of more, and more effective, leaders.

Concomitant with this practical imperative, the field of leadership development is coming into its own as a scholarly discipline separate and distinct from the more traditional approaches to studying leadership. Since the 1980s, scholars have adopted a wide array of scientific approaches that are geared toward better understanding leadership development. Examples include qualitative studies providing rich insight into the types of experiences that develop leaders (e.g., Hill 1992, McCall et al. 1988), quantitative studies disentangling the impact of individuals’ genetically based characteristics from environmental drivers associated with ascendancy into leadership roles (e.g., Arvey et al. 2007, De Neve et al. 2013), and theoretical work describing how leadership is developed among leaders and followers (DeRue & Ashford 2010), as well as theoretical frameworks that conceptualize leader development as embedded in ongoing adult development (Day et al. 2009).

Although notable advances have been made in the scientific study of leadership development, it is a nascent field of scholarship. In large part, the goal of extant research has been to establish evidence that leadership can be developed and to understand the types of efforts that develop it. This work has progressed in a somewhat haphazard way because shared understandings are lacking in terms of basic definitions, theoretical orientations, the most relevant indicators of leadership development, and other conceptual and measurement considerations. This is typical of any scientific discipline in the early stages of development (Reichers & Schneider 1990). But with this review and other recent work, the field is at an exciting juncture at which we are able to constructively reflect on the progress made to date and offer ideas for how to further stimulate advancements.

Leadership Development Defined

Scholars define leader development as the expansion of the capacity of individuals to be effective in leadership roles and processes. They define leadership development as the growth of a collective’s capacity to produce direction, alignment, and commitment (i.e., leadership; McCauley et al. 2010). A noteworthy aspect of this definition is that such efforts can be either focused at the individual level or targeted—albeit less frequently—at broader collectives such as teams or an entire organization (Day 2000) (see Practical Implication 1). We capture the breadth of this phenomenon by organizing our review by level of analysis (i.e., individual, dyad, and team/organization) and by time (i.e., proximal and distal outcomes of development).

The definitions of leader and leadership development focus on efforts aimed at expanding individual and collective capacity to be effective in leadership roles and to bring about effective leadership. Among other things, individuals who hold leadership positions are expected to facilitate the development of a direction given environmental considerations, align the efforts of others in support of this direction, and engage and motivate others to accomplish this direction.

Practical Implication 1: Developing leadership requires a different and more collective focus than developing individual leaders (i.e., there are different levels of analysis involved).

That is, they are expected to provide leadership (Drath et al. 2008, Kotter 2001, McCauley et al. 2010). Thus, the study of leader development focuses mainly on the acquisition of individual knowledge, skills, abilities (i.e., competencies) and enhanced holistic functioning that promote more effective leadership, mainly for those in formally appointed roles.

At the same time, the enhancement of individual and collective ability to engage in leadership processes is an inherent part of leadership development (McCauley et al. 2010). At its most fundamental level, leadership is a social influence process. Dating back to Barnard's (1938) classic theory of cooperative action, there has been a recognition that leadership functions entail defining a purpose or goal for a collective and generating endorsement and commitment among followers in support of that end. In this sense, leaders and followers play important and interdependent roles in generating leadership. A great deal of leadership theory and research focuses on leader behaviors targeted at directing and motivating followers (see Bass 2008 for a comprehensive review of this literature), whereas other approaches highlight the role of followers in perceiving, categorizing, or otherwise making sense of a leader (Hogg 2001, Lord & Maher 1991, Van Knippenberg & Hogg 2003). More recent approaches to leadership have attempted to strike a better balance between the roles of leaders and followers in generating leadership (e.g., DeRue & Ashford 2010, Lord & Brown 2001, Lord et al. 1999). Leadership development research from this vantage point is most concerned with how leadership is socially constructed between a leader and follower(s), how leadership may be shared or distributed within a collective, and how the coordination of efforts within a collective emerges in support of a particular strategic goal.

This discussion of what leadership development entails suggests that the phenomenon emphasizes development and, more specifically, is concerned with understanding growth and change in leadership capabilities of individuals and collectives. Thus, leadership is developed over time, with proximal indicators suggesting that more distal development is likely to occur. An approach adopted in this review is to (roughly) categorize developmental outcomes into those that are thought to develop relatively quickly (i.e., proximal) and those that require more long-term (i.e., distal) perspectives to better understand and more appropriately model leadership development. These outcomes are different from leadership effectiveness, which is a performance-based outcome rather than a developmental outcome. It is also the case that leadership effectiveness can take myriad forms depending on the particular context and the underlying challenges. Our review includes research on effectiveness only when it sheds light on developmental outcomes or processes.

Goals and Scope of the Review

A primary objective of this review is to offer an overarching framework that summarizes in an integrative fashion the accumulated knowledge and evidence regarding the development of leaders and leadership, as well as to highlight areas needing future research attention. We present this general summary framework in **Figure 1**. This framework reflects both the multilevel nature of leadership development and the important role of time by proposing proximal and distal indicators of development at each level. This begins to address the fundamental questions associated with what develops in leadership development, how we know if development is occurring, and roughly when it is likely to occur. Our framework highlights experience, practice, support, and intensive interpersonal interactions as ways in which leadership development may be enhanced; thus, these characteristics are presented as moderators of the respective leadership development paths. It is important to highlight that this framework is preliminary and is intended to promote additional theory development. As such, it provides examples but is not an exhaustive treatment of relevant outcomes associated with leader and leadership development.

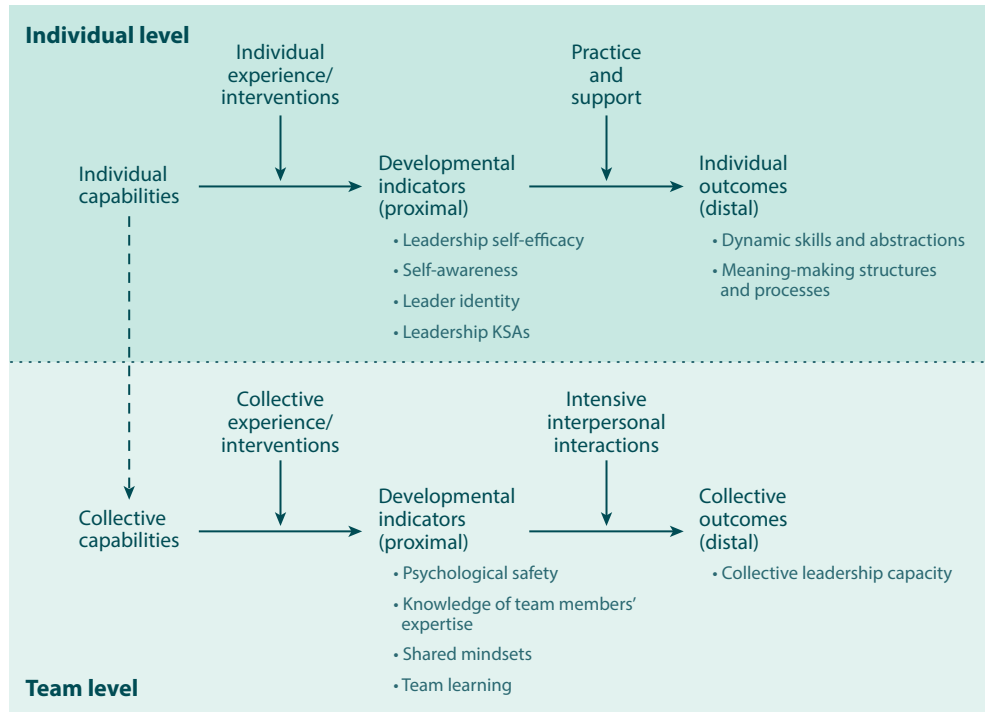


Figure 1

Multilevel summary framework of leadership development processes and outcomes. Abbreviation: KSAs, knowledge, skills, and abilities.

The second and related objective of this review is to stimulate high-quality theory and research. Toward this end, we focus on the more scientifically rigorous scholarly work in leadership development and therefore generally omit practitioner perspectives. Research has been enriched by a variety of approaches, and thus we feature theoretical, quantitative, and qualitative treatments of leadership development. Furthermore, we consider literature that takes alternative perspectives on fundamental questions inherent to this area. For instance, there are theoretical approaches to leader development that address mainly the development of leadership skills and competencies in which skills and competencies are considered to be integral parts of a leader, whereas others adopt more holistic or gestalt-like focus (i.e., a whole perspective in which leaders cannot be understood solely in terms of their component parts or skills and competencies). Similarly, in the area of leadership development, scholars have taken slightly different approaches to defining leadership and studying its development. We highlight these various perspectives in the spirit of stimulating productive intellectual dialogues that enhance the likelihood of greater consensus emerging among scholars about how to advance the science of leadership development.

LEADER DEVELOPMENT

This section reviews the literature on individual leader development. As such, the focus is on the individual leader, although some of the longitudinal research in this area incorporates both intra- and interpersonal analyses. This section also examines proximal developmental outcomes in the

form of leadership self-efficacy, self-awareness, and leader identity, as well as relevant skills and competencies. In addition, more distal outcomes such as dynamic skills and abstractions of leaders as well as their respective levels of development as defined by human development theorists are reviewed.

Self-Views

Self-views in the form of one's self-concept or self-construal have important influences on individual emotions, cognitions, and behavior (Leary & Tangney 2003). More specifically, it is thought that particular types of leadership-related self-views in terms of leadership self-efficacy, leader self-awareness, and leader identity are important components of the leader development process (Day et al. 2009). If a person is self-aware, views him- or herself as a leader (i.e., holds a strong leader identity), and maintains a high level of efficacy in terms of self-beliefs about the ability to organize and execute leadership when needed (Van Knippenberg et al. 2004), then there is a greater likelihood of this person building further competence and demonstrating enhanced effectiveness as a leader relative to having limited self-awareness, holding a weak leader identity, and having lower levels of leadership self-efficacy (Hannah et al. 2008). Put somewhat differently, self-views of leadership are thought to mediate between individual capabilities and more distal individual-level outcomes (see **Figure 1**). For this reason, it is both relevant and potentially important to focus on the development of leader self-views as a proximal outcome in the leader development process.

Leadership self-efficacy. In proposing a conceptual framework and research on the topic of motivation to lead, Chan & Drasgow (2001) proposed that individual differences in personality, values, and leadership experience shape the level of leadership self-efficacy held by an individual, which in turn influences the relative level of a motivation to lead. The motivation to lead construct was conceptualized in terms of three separate dimensions: affective/identity motivation to lead (i.e., liking to lead), social-normative motivation to lead (i.e., a sense of duty to lead), and noncalculative motivation to lead (i.e., not being calculative about the costs of leading relative to the benefits). Research based on civilian and military samples generally supported positive relationships between leadership self-efficacy and the affective/identity and social-normative components of a motivation to lead (the results for leadership self-efficacy and noncalculative motivation to lead were nonsignificant at the model level). Although it was proposed as a theory of individual differences and leadership, motivation to lead has potential developmental implications. Enhancing individual capabilities would likely increase leadership self-efficacy, thus enhancing a motivation to lead, which can influence more distal outcomes related to leader competence and effectiveness (see Practical Implication 2).

Several studies examining the development of leadership self-efficacy have been conducted using samples of military officers and cadets. In a field experiment, Lester et al. (2011) investigated how a targeted mentorship program conducted over a six-month time period affected levels of leadership self-efficacy and the independently rated leader performance of a sample of military cadets. The mentorship intervention was shown to raise levels of leadership self-efficacy more than a comparison intervention based on a generic leadership program, and that leadership self-efficacy predicted leader performance. A related construct is leader self and means efficacy, conceptualized as a leader's "level of perceived capability to self-regulate their thoughts and motivation, draw from means in their environment, and act successfully across the span of leadership challenges and tasks in their current context" (Hannah et al. 2012, p. 143). Research based on samples of working adults, military officers, military squad leaders, and platoon sergeants demonstrated that this



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Practical Implication 2:

Individual levels of leadership self-efficacy offer a proximal outcome of development and may indicate an enhanced likelihood of longer-term (i.e., distal) development.

version of leadership self-efficacy significantly predicted leader motivation, specific forms of leadership behavior (i.e., contingent reward and transformational leadership), and leader performance.

Research has also examined the development of leadership efficacy in MBA teams (Quigley 2013). In a study adopting a longitudinal, multilevel perspective with individuals and teams involved in a four-day business simulation, results suggested that extraversion and cognitive ability predict initial levels of leadership self-efficacy, whereas the personality factors of emotional stability, agreeableness, and openness to experience predict changes in leadership efficacy over time. Another aspect of this study was the longitudinal examination of team-level dispersion in leadership efficacy, thus incorporating both individual- and team-level perspectives on the development of leadership efficacy. The relationship between the development of leadership efficacy and subsequent performance or effectiveness was not examined at either an individual or a team level.

In terms of areas for future consideration, greater clarity is needed with regard to the potential underlying dimensionality of leadership self-efficacy. In certain studies, leadership self-efficacy was conceptualized as a multidimensional construct involving items such as efficacy in the related leadership tasks of direction setting, gaining commitment, and overcoming obstacles (Paglis & Green 2002) or as a higher order construct defined by leader actions, means, and self-regulation (Hannah et al. 2012). In still other research, leadership self-efficacy was operationalized as a unidimensional construct (Chan & Drasgow 2001, Lester et al. 2011, Quigley 2013). Moving forward with research on leadership self-efficacy within the context of leader development, greater consensus is needed with regard to the conceptualization and measurement of the construct. This is an important issue not only in the interest of consistent science but also in terms of understanding where to focus developmental initiatives practically. Specifically, should focus be given to raising leadership efficacy levels on distinct dimensions or with efficacy for leadership in general? Researchers need to take a step back and rethink the meaning and measurement of leader self-efficacy. It is unlikely that any single study will be able to provide ultimate clarity given the complexity of these construct validity issues.

Self-knowledge/awareness. In terms of understanding what develops as a function of leader development, self-knowledge or self-awareness is considered to be a key concern (Reilly et al. 2014). Self-awareness generally relates to having a deep understanding of personal strengths and weaknesses, learned preferences, and insight into one's impact on others in interpersonal contexts (McCauley et al. 2010). Self-awareness is typically operationalized as the congruence between self and others' behavioral ratings of a target leader with some research suggesting that there is greater self-awareness among high-performing as compared with average-performing leaders (Church 1997). Self-awareness is also relevant to developmental theory (discussed below) in that one's understanding of self is thought to deepen and become more complex at more advanced developmental levels.

At the core of enhancing self-awareness is the use of feedback, and especially multisource (i.e., 360°) feedback provided by various rating sources (e.g., self, subordinate, peer, and supervisor). From this perspective, self-awareness in terms of the congruence between self and other ratings has multiple facets in that self-ratings might be congruent with peer ratings but not with subordinate or supervisor ratings. This further complicates matters when different rating sources disagree; however, the real issue is the lack of available evidence showing that participation in leader development initiatives, such as those using multisource feedback, enhances leaders' self-awareness. Overall, the research evidence for the assertion that developmental interventions enhance self-awareness is weak or nonexistent. Rather than focusing on changes in self-awareness as a function of leader development, researchers have focused more on the implications of self-other

agreement in terms of leadership effectiveness (Atwater & Waldman 1998, Fleenor et al. 2010), with the research findings suggesting equivocal relationships between agreement and leader effectiveness (Day et al. 2014).

Other researchers have focused on what leaders do with their multisource feedback and whether it improves their effectiveness over time. Results of a quasi-experimental field study found that working with an executive coach can improve various aspects of performance, such as setting specific goals, soliciting ideas for improvement from others, and improving direct report and supervisor ratings of a leader's subsequent behavior (Smither et al. 2003). Additional research on the topic has reported that performance improvement following multisource feedback is more likely for some feedback recipients than others depending on aspects of the feedback itself and the reactions and beliefs of the feedback targets (Smither et al. 2005). Although such research is interesting, it does not address the core issue of whether enhanced self-awareness occurs as a function of leader development processes or interventions, even when feedback is the focus of an intervention. This is surprising given how important self-awareness is thought to be for leader development (Reilly et al. 2014), and points to a future research need in this area.

Leader identity development. Identity refers to meanings attached to a person by self and others (Gecas 1982). Identity is thought to evolve over time as a function of varied experiences that allow people to gain insight about their central and enduring preferences, talents, and values (Lord & Hall 2005). There is a robust literature on the general topic of leadership and identity (see Ibarra et al. 2014 for a recent review); however, this section focuses on issues related to the development of a leader identity. A core assumption in much of the identity literature is that the self is not unidimensional and that people develop identities based on various factors, including the social roles and group memberships a person holds (social identities), as well as based on the personal characteristics that they display or are attributed to them (personal identities). One such identity facet is that pertaining to how and to what extent a person views him- or herself as a leader. Leader identity can be formed through social and/or personal factors.

Leader identity development is thought to be especially important in the development of leadership skills. As a leader identity develops, it is increasingly likely that an individual will be motivated to attempt new leadership activities and practice the relevant leadership skills that have been acquired, which creates the potential for learning new leadership skills and further identity development (Lord & Hall 2005). In a similar vein, Day et al. (2009) proposed that spirals of leader identity develop over time. Such spirals can be either positive or negative in terms of accentuating and internalizing a leader identity that motivates leadership skill acquisition or the converse of letting go of a leader identity and deemphasizing the acquisition of relevant leadership skills. In the case of positive identity development spirals, an individual becomes more likely to participate effectively in leadership processes when needed; negative identity development spirals contribute to an individual being less willing and able to participate in effective leadership processes (also see DeRue & Ashford 2010).

In a partial test of the notion of identity development spirals, Day & Sin (2011) conducted, among emerging leaders (i.e., university students), a longitudinal study of leader development processes in which leader identity served as a time-varying covariate of developmental trajectories. The authors found that endorsing a stronger leader identity was positively associated with others' ratings of the target's leadership effectiveness across four time periods (see Practical Implication 3). Also studying college students but using a qualitative, grounded theory approach to understanding identity-based leader development, Komives et al. (2005) noted a gradual shift across the undergraduate college experience, from heroic leader-centric notions of leadership to more participative conceptualizations that included considering oneself a leader even if one could not be *the* leader.

Practical Implication 3:

The development of a leader identity is a proximal outcome of leader development that has been shown to covary with leader effectiveness across time.

Others have conceptualized leader development as identity work in illustrating how covert forms of second-generation gender bias interfere with the identity work of women leaders (Ely et al. 2011). Although women may be willing to claim a leader identity in enhancing their development as leaders, others must grant them that identity claim as well (DeRue & Ashford 2010). The potential reluctance of others to grant the leader identity claims of women is just one of many impediments to women's leader identity development, according to Ely et al. (2011). Those authors argue that leader development initiatives provided solely for women should provide a framework for understanding how second-generation gender bias can derail leadership transitions while providing "a holding environment in which to discover, recover, and sustain a sense of agency and purpose in their ongoing exercise of leadership" (p. 488).

Knowledge, Skills, and Competencies

The knowledge, skills, and competencies most needed for effective leadership include those that enable effective direction setting, relationship building, change management, and external environment navigation (e.g., Yukl 2012, Zaccaro 2001). The use of experience to enhance leaders' development of such knowledge, skills, and competencies has been proposed as the most potent way to develop leaders (McCall et al. 1988; McCall 2004, 2010). Experience is a multifaceted construct (Tesluk & Jacobs 1998), and most research that has linked experience to some form of leader development has sought to better understand the qualitative nature of the experience (i.e., experiential components that offer the type of challenges and consistency that enable development).

One way to conceptualize experience is through assessing the level or degree of developmental challenge associated with work roles (McCauley et al. 1989). Research has documented that managerial self-rated learning occurs when managers hold more developmentally challenging work roles (McCauley et al. 1994). However, when managers are overchallenged (i.e., the degree of developmental challenge is too high), the acquisition of leadership skills exhibits a pattern of diminishing returns, which may be mitigated when feedback is available (DeRue & Wellman 2009) (see Practical Implication 4). Other research focusing on the developmental quality of managerial assignments found that more developmental assignments were positively associated with the development of leadership competencies and that managers with stronger learning orientations who had access to growth assignments were more likely to be in developmental assignments in the first place and to achieve higher levels of competence through those experiences (Dragoni et al. 2009).

Whereas these studies tended to focus on a singular developmental experience, recent research has recognized that work experience consists of a stream of events and activities (see Practical Implication 5). In recognition that some experiences may be similar and reinforcing, and thus beneficial for development, researchers have examined the accumulation of work experience in predicting the strategic thinking competency of executives beyond what could be predicted by individual characteristics and other measures of work experience (Dragoni et al. 2011). Results suggested that the cognitive ability of leaders and their accumulated work experience are the most important predictors of strategic thinking competency. Subsequent research on the development of leaders' strategic thinking (Dragoni et al. 2014a) describes how certain experiences may disrupt current work approaches, thus offering a unique developmental challenge and opportunity. These researchers specifically examined global work experiences requiring role incumbents to physically or psychologically transcend national boundaries. These work experiences were found to be important in the development of strategic thinking competency, especially when the leader had experience in a country whose culture was quite distinct from his or her own culture (i.e., culturally

Practical Implication 4:

The degree of developmental challenge matters; subjecting developing leaders to too much challenge—especially without feedback—can lead to diminishing developmental returns.

Practical Implication 5:

In using experience for leader development, work experience should be considered as a stream of interdependent activities rather than a singular experience.

distant) (see Practical Implication 6). An interesting question for future research involves untangling when similar and reinforcing experiences versus those that disrupt current routines are helpful to leaders' development.

Related research has examined how specific global work experiences may build leaders' competencies to lead across cultural boundaries. To capitalize on business opportunities stemming from globalization, Gupta & Govindarajan (2002) assert that executive leaders need a global mind-set—that is, an awareness of differences across national cultures and markets and an ability to synthesize across this diversity—and that this mind-set may be developed through international experiences. Empirical evidence verifies these claims, demonstrating that managers' international experience is positively related to their self-assessed global orientation, tolerance for ambiguity, cultural flexibility, and strategic thinking competency (Arora et al. 2004, Black et al. 1992, Caligiuri & Tarique 2012, Dragoni et al. 2014a). Of particular interest, one study of global managers found nonwork international experiences (e.g., studying abroad, coming from a multicultural household) to have a stronger relation to cross-cultural competencies (e.g., cultural flexibility, tolerance for ambiguity) relative to organizationally initiated experiences (Caligiuri & Tarique 2012). These results remind us that some of the most potent and developmental experiences may not occur at work (see Practical Implication 7).

Although challenging experiences have been shown to be important for leader development, scholars have long recognized the importance of providing support to developing leaders during critical experiences (e.g., McCauley et al. 2010). As a result, recent empirical research has begun to explore the notion of support in facilitating leader development. Quasi-experimental research has demonstrated that structured reflection by means of after-event reviews, which provides learners with an opportunity to systematically analyze their behavior and evaluate the contribution of its components to performance outcomes, is useful in promoting experience-based leader development (DeRue et al. 2012) (see Practical Implication 8). The positive effects of after-event reviews were accentuated for those individuals manifesting high levels of conscientiousness, openness to experience, and emotional stability as well as having a varied base of prior developmental experiences.

Additional research has demonstrated how supervisors can facilitate leader development among early-career leaders transitioning into new roles in terms of a leader's understanding of the new role and the time he or she allocates to leading others (Dragoni et al. 2014b). Supervisor support was conceptualized as modeling effective leadership behavior and providing relevant new job information. Results revealed that transitioning leaders who have a current supervisor who models effective leadership and provides information about the leader's new job accumulate an understanding of their role at a faster rate and allocate more time toward motivating and inspiring others (see Practical Implication 9). These upward trajectories were more positive for those transitioning leaders who had not had prior experience in working for a boss who modeled effective leadership, presumably because they especially needed to see effective leadership in action. These results demonstrate that the helpfulness of support is dependent upon individuals' needs and prior experiences. Finally, qualitative work has revealed that there are a variety of ways for bosses to support their direct reports as they develop into more effective leaders, such as role modeling and setting high standards for performance (McCall & McHenry 2014). Taken together, these studies demonstrate considerable variance in the types of support available to leaders and suggest a need to more thoughtfully consider the conditions under which different forms of support are most helpful, to whom, and when.

Despite these advances in the field, further theoretical and empirical contributions are needed to enhance a deeper understanding of leader development. It has been argued that the development of leaders occurs in the context of ongoing adult development (Day et al. 2009). Thus, a better

Practical Implication 6: Disruptive experiences may be especially useful as triggers of leader development; one example is providing a developing leader experience in a culture very different from the home culture.

Practical Implication 7: Nonwork experience should be leveraged along with work experiences in fostering leader development.

Practical Implication 8: After-event reviews promote experience-based leader development.

Practical Implication 9: Supervisor support in the form of modeling effective leadership and providing role information can enhance the development of transitioning leaders.

understanding of human development should provide valuable insights for identifying longer-term, developmental outcomes of leader development as well as to inform the developmental processes that bring about such changes. Human development models are especially helpful for future leader development research because they offer, among other things, the potential to specify more distal outcomes. We assert that distal outcomes in leader development move beyond a singular change in perspective (e.g., growth in leadership self-efficacy) or in competency (e.g., enhancement in strategic thinking competency) to more fundamental changes in individuals resulting from integrating multiple skills, competencies, and self-views to navigate more complex leadership challenges.

Human Development Theories

This section briefly reviews two foundational theories of human development with an eye toward articulating more distal outcomes relevant for leader development research and practice.

Dynamic skill theory. A promising theoretical model with regard to leader development is dynamic skill theory (Fischer 1980; Fischer & Bidell 1998, 2006; Mascolo & Fischer 2010). As the name suggests, the core concept of the theory is skill, which is defined as “the capacity to act in an organized way in a specific context” (Fischer & Bidell 2006, p. 321). Skills are action-based and context-specific psychological structures representing the dynamic organization of human activities. These psychological structures consist of integrated configurations of meaning, experience, and affect that operate within particular domains and social contexts. This view is distinct from the more traditional way of conceptualizing skill as a learned ability to carry out a specific task, which generalizes across contexts. In dynamic skill theory, cognition and emotion are not separate entities or processes as conceptualized in other theories; rather, they are inseparably intertwined in producing action and thought (Fischer 1980, 2008). In this way, dynamic skill represents a more holistic functioning than the self-views, traditional skills, and competencies as discussed above.

Central to the theory is the assumption that for any particular skill in a given domain or social context, people operate at different levels: automatic (i.e., for skills that are overlearned such that they require little or no conscious attention, effort, or control), functional (i.e., for skills requiring no or low support but needing conscious processing to enact), optimal (i.e., for skills that can be achieved only with high support and represent an individual’s maximal level or peak performance), and scaffolded (i.e., for skills requiring a more accomplished other to assist the person by co-constructing performance). These correspond to different levels of stability in the construction and consolidation of a given skill. Taken together, the hierarchical levels of skill deployment constitute a so-called web of development that is more dynamic and variable than traditional conceptualizations of human development in which development progresses from a lower stage to a higher one in a linear, ladder-like manner. The developmental web presumes that an individual can function at multiple levels on a given skill at any given point in time, whereas a developmental ladder assumes that a skill operates on only a single step or rung of the ladder at a given time. This metaphor of development as a web potentially offers a more accurate perspective on leader development in that the development of something as potentially complex as leadership is rarely linear and sequential.

The development of a dynamic skill occurs through a reiterative series of nested growth cycles that result from natural maturation as well as interventions (especially in later stages) and proceeds through three tiers of skill levels (actions, representations, and abstractions). Especially relevant for leader development is the uppermost tier of skill development dealing with abstractions (i.e., “higher order representations about intangible and generalized aspects of objects and events”; Mascolo & Fischer 2010, p. 156) and, at the pinnacle of development, abstract principles

(i.e., those principles that tie together multiple abstract systems and occur only among people with high levels of education, experience, or specialization in a given field). Fischer (2008, p. 136) suggests an image of building blocks “in which the simple blocks for representations eventually create a new kind of more complex building block to begin the capacity to think abstractly.” An implication of this aspect of dynamic skill theory is that senior leaders need to operate at the highest levels of developmental functioning to be effective as leaders given the degree of complexity inherent in their roles.

Dynamic skill theory is premised on the notion of individual variability, which is based in arguments that individuals behave, learn, and develop in distinctive ways (Rose et al. 2013). Most approaches to leader development assume that individuals have relatively stable behavior and that development occurs along a single unidirectional dimension in a ladder-like fashion. Dynamic skill theory assumes that humans vary considerably at the intraindividual level. Relatively slow and incremental patterns of development indicate an individual’s current level of functioning, whereas high degrees of dynamic movement across levels of proficiency are suggestive of a period of intense growth. Furthermore, different individuals likely vary in skill stability and trajectories (Fischer 2008). One implication is that leader development interventions may need to be targeted and tailored more specifically based on individual patterns of stability and variability, rather than assuming all individuals need the same level or types of resources (e.g., support, feedback). This also facilitates prediction of the next step of development of each leader’s skill uniquely, which means that leader development practices could be tailored more specifically.

Another relevant aspect of dynamic skill theory with regard to leader development is the notion that skill deployment occurs under various conditions of support ranging from no support, low support, high support, and scaffolded. If the development of leaders and leadership depends on practice, as some have argued (e.g., Day et al. 2009, Lord & Hall 2005), then a question arises as to what level and types of support are needed to attain optimal levels of skill deployment and then as to how to push beyond those developmentally through the use of interventions involving scaffolded practice (see Petriglieri et al. 2011 for an example).

Constructive-development or ego development theory. A particular class of developmental models that have been considered with regard to leader development are those falling under the heading of constructive-developmental or ego development theory (e.g., Kegan 1982, 1994; Rooke & Torbert 2005; Torbert 2004). Underlying these various theories is the notion that adult development involves the growth and elaboration of a person’s holistic way of understanding the self in relation to the environment across the lifespan (McCauley et al. 2006). This theoretical perspective proposes that people progress from being subject to certain assumptions and beliefs (e.g., others’ opinions) to examining such assumptions objectively at more complex levels of meaning making (e.g., distinguishing others’ opinions from one’s own opinions) to then potentially crafting their own more complex beliefs (e.g., personal ideology). In this manner, development is the continuous process of consciously examining previously held unconscious beliefs and assumptions to ultimately author one’s own identity and ideology (i.e., a self-transforming mind).

The general proposition offered by these theoretical approaches is that an individual’s general level of ego development—or what Kegan (1994) refers to as order of consciousness or order of mind—should influence his or her effectiveness as a leader. The more complex the ego development or order of mind, the greater capacity a person has to deal effectively with environmental complexities broadly construed. These are different from the forms of self-views offered as proximal outcomes of leader development. In particular, the complexity of ego development represents a more holistic way of meaning making and interacting with the environment as compared to leadership self-efficacy, self-awareness, and leader identity. But as noted, the more proximal developmental

outcomes offer potential indicators that more distal and holistic development may be occurring over the longer term.

A review by McCauley et al. (2006) of a broad set of relevant literature suggested mixed support for the general proposition of later levels of development equating to enhanced leader effectiveness. Nonetheless, those authors pointed to several limitations with regard to the application of ego development theory to the domain of leadership development. Specifically, they urged future researchers to (a) go beyond the focus on developmental order or level to address the more important concern of the dynamics underlying developmental movement and (b) transcend a focus on the development of individual leaders to include the development of more complex leadership processes in groups, teams, and organizations.

To date, few studies have been conducted on these more holistic forms of leader development. Nonetheless, such approaches have strong roots in developmental theory. Further conceptual and empirical work is encouraged to better integrate these different developmentally based perspectives on the how and why of individual leader development, especially in terms of conceptualizing distal developmental outcomes.

Summary of Leader Development

Research in the area of leader development suggests that individuals begin their respective leadership journeys with predisposed levels of leadership ability (Arvey et al. 2007), based primarily on personality traits (e.g., extraversion, conscientiousness) and intelligence (Judge et al. 2002, 2004). As depicted in the top left-hand portion of **Figure 1**, over time and through experiences and specific types of interventions, particularly challenging work assignments (Dragoni et al. 2009), mentoring (Lester et al. 2011), and training experiences (Dvir et al. 2002), individuals can enhance their leadership capabilities. Early signs that development is occurring include a change in individuals' self-views (i.e., leadership self-efficacy, self-awareness, and leader identity), which may contribute to an enhancement of specific leadership-related knowledge and competencies over time and with practice (Day et al. 2009). These proximal outcomes are included in **Figure 1** as intrapersonal developmental indicators because they involve changes either in how a leader views him or herself or in specific competencies, which may or may not represent a dramatic shift in the leader's worldview, evolution as a human being, or ability to enact leadership competencies consistently across a range of situational demands.

Theories of human and adult development also suggest more distal developmental outcomes. In **Figure 1**, we highlight two such outcomes: growth in dynamic skill and abstractions and the development of more complex meaning-making structures and processes. Finally, the likelihood that initial signs of development will be actualized into more distal and fundamental intrapersonal changes depends on the availability of support for the individual, as dynamic skill theory suggests, and whether the individual is able to meaningfully practice different ways of being and interacting with others (Day et al. 2009). This qualified relationship is depicted in the top right-hand portion of **Figure 1**.

LEADERSHIP DEVELOPMENT

Although the majority of research to date has focused on understanding the factors that enhance leadership capabilities of those in formal leadership roles, the study of leadership development is broader than this. It is also concerned with the growth in leadership within a dyad, unit, or larger collective (Day 2000). In this section, dyadic views of leadership and its development are reviewed, followed by a summary of the research on more collective leadership development within units and organizations.

Leader-Follower Relationships: Dyadic and Relational Perspectives on Leadership Development

Our discussion of leadership development at the dyadic level recognizes a broad range of leadership research that has treated leadership as a relationship. When leadership is considered to be rooted in a relationship, the study of leadership development is then concerned with how the actors generate clarity of direction, create or co-create alignment of mind-sets and efforts, and build enhanced commitment. The relational perspectives reviewed vary in the extent to which they explicitly describe how leadership is developed. Nonetheless, even those without an explicit intention of informing the phenomenon of leadership development potentially provide a theoretical basis to more meaningfully consider the role of individual characteristics and perceptions in future leadership development theory building and research.

Uhl-Bien (2006) summarizes two broad classes of leadership theories that regard leadership as grounded mainly in relationships. The first category of relational leadership research adopts an entity perspective in which individuals are viewed as separate, independent beings. Thus, the act of relating is considered more of an individual act that can be gauged by assessing individual perceptions of the relationship. For instance, some research on charismatic leadership views it as rooted in the relationship between the leader and follower and seeks to better understand the characteristics of followers that shape the type of charismatic relationship that is ultimately formed with the leader (Howell & Shamir 2005). As another example, research on leader-member exchange (LMX) examines the quality of the relationship between leaders and followers and finds that followers who enjoy higher-quality relationships with their leaders are more motivated, perform duties outside their formal role descriptions, possess greater clarity on their roles, and experience greater organizational commitment (Dulebohn et al. 2012, Gerstner & Day 1997, Ilies et al. 2007). A common theme across these perspectives is that the quality of a leadership relationship and how it is perceived can influence alignment and commitment among followers (i.e., bring about leadership).

With respect to our central interest of how leadership relationships are developed, LMX theory and research provide the most detailed explanation of these entity approaches. Situated in the context of a new member joining a group, theory and research describe a role-making process (Graen & Scandura 1987) during which the leader and follower negotiate the degree of interdependence in their respective work roles and exchange socially based resources, such as loyalty and exceptional work performance, as a way to build a relationship based on mutual trust, respect, and commitment (Dienesch & Liden 1986, Liden et al. 1997). Time-lagged and longitudinal studies have attempted to capture this process as viewed by the leader and/or follower (Bauer & Green 1996, Liden et al. 1993, Murphy & Ensher 1999, Nahrgang et al. 2009).

Bauer & Green (1996) offer the clearest portrayal of this relationship-building process. They detail that an initial attraction is formed between leaders and members who are similar in affect and personality (no support was found for gender similarity), which encourages leaders to view a particular follower's performance more favorably and delegate more work to him or her. The researchers reason that these leader delegation-follower performance cycles are central in shaping and solidifying the nature of the LMX relationship by enhancing mutual trust and commitment. Thus, leadership defined as greater commitment and alignment to work goals among followers may be developed through a reinforcing and productive cycle of the leader's delegation of work tasks followed by effective follower performance within a context of interpersonal comfort between the leader and specific follower (see Practical Implication 10).

These types of entity perspectives regarding the leadership relationship provide only partial insight into leadership development. First, the focus is squarely on the person in a formal

Practical Implication

10: Leader delegation can initiate a cycle that develops broader leadership capacity including follower(s).

leadership role, which overlooks how leadership from other sources may be fostered and deemphasizes leadership as a mutual influence process that may occur among many types of organizational actors (e.g., Bedeian & Hunt 2006, DeRue & Ashford 2010, Uhl-Bien et al. 2000). Second, and relatedly, leadership may additionally be conceived of as a process that is socially constructed (Dachler 1992, Hosking 1988). Acknowledging this unique vantage point in comparison to entity perspectives, such approaches to leadership offer a relational perspective (Uhl-Bien 2006). This class of approaches to leadership assumes that leadership is co-created through a series of interactions among actors in which communication becomes the means through which leadership is socially constructed within a particular context.

Growing out of this more relational tradition of viewing leadership as socially constructed, DeRue & Ashford (2010) offer an insightful depiction of how leadership develops among actors who may or may not hold a formal leadership position within an organization. Building from existing research on identity construction in leadership (Day & Harrison 2007, Day et al. 2009, DeRue et al. 2009, Gardner & Avolio 1998), the authors portray leadership development as developing through identity work during which individuals claim a particular identity (i.e., leader or follower) and others affirm and grant them this identity. Claims of a leadership identity may include directing the work of others or assuming the head of the table for a meeting, whereas granting acts may involve referring to another as the leader. Individuals may also claim a follower identity by deferring to another to speak during a meeting and be granted this identity by not being asked for input on an important decision. When a mutual recognition emerges of who is the leader and who is the follower, it forms the basis of leader–follower relationships. This recognition may extend to the broader collective in creating effective leadership and followership. What is particularly intriguing and novel about this account is a clear focus on articulating a process of social interactions that create leadership within a particular context, a view that stands in contrast to entity perspectives such as LMX that suggest a process of developing a leadership relationship (e.g., Graen & Scandura 1987) but tend to examine only individual perceptions of the quality of the LMX relationship.

Consistent with others (Uhl-Bien 2006), we are not advocating for primacy of one perspective (i.e., entity or relational) over another. Rather, we see the potential for greater theoretical integration and expansion of these perspectives in advancing the study of leader and leadership development. For instance, an overarching objective from an entity perspective is to provide insights into how formal leaders broker enhanced motivation and commitment via productive work relationships with followers. As a result, these perspectives can provide insight into how to build greater self-awareness, other-awareness, and relationship-building skills in formal leaders. In addition, greater theoretical integration between these two perspectives may be possible. One way to link DeRue & Ashford's (2010) work to LMX theory is to consider how and under what conditions exchanges of social resources (e.g., support, information) become viewed as grants of and claims for leader or follower identity (DeRue 2011). Finally, a fruitful avenue of theoretical integration may center on drawing from entity perspectives to identify the types of people most likely to see leadership as co-created or as something that is fixed, which would have implications for the claiming/granting process.



Online Video: What Can Leadership Development Do for Your Organization?

Leadership Development Within a Team or Organization

Whereas some scholars have more heavily emphasized leadership as a relationship, others more explicitly specify leadership as a mutual influence process that enables teams and organizations to navigate the complexity of their internal and external environments (e.g., Dachler 1992, DeRue 2011, Kotter 2001). As such, it may be thought of as a process of organizing and mobilizing effort for team or organizational adaptation (e.g., Uhl-Bien et al. 2007). At the team or organizational

level, the study of its development then seeks to gain insight into the conditions that enable leadership processes to emerge, adapt, and expand overall collective efficacy. In this way, leadership is conceptualized as an outcome of social structure and process rather than as an individually driven system input (Salancik et al. 1975). Research on leadership development with this focus is very much in its infancy, and similar to work that informs the dyadic level of leadership development, scholars differ in how explicit they are in their attempts to inform the area of leadership development. Our goal is to draw on a broader base of teams and leadership research that is relevant for identifying a preliminary set of indicators that a collective is developing greater capacity for leadership.

Day et al. (2004) proposed that teams possess the potential to enhance their leadership capacity through leadership development processes and that such development would be evidenced in leadership becoming more equally shared or distributed among team members. More recently, DeRue (2011) described how various types of leadership structures emerge in a team. Given that effective leadership develops initially between actors when acts of leading are met with acts of following (DeRue & Ashford 2010), different leadership structures emerge over time as a function of the extent of leading-following interactions and the degree to which acts of leading are relegated to the same person within the team. Adaptability to environmental volatility is proposed to be best achieved when team members vary their roles in their leading-following interactions (thus developing the team's leadership capacity). That is, either the team uses a distributed structure in which leadership is centralized in one leader and the leadership role rotates among various team members (e.g., Klein et al. 2006) or a shared leadership structure emerges whereby the responsibility for leadership (and thus followership) is assumed equally across members (e.g., Pearce & Conger 2003).

Likely what is shared or distributed within these leadership structures is power, whereby expressions of power are initiated by those with the most relevant expertise and are seen as legitimate by others given the demands of the task (Aime et al. 2014) (see Practical Implication 11). It further has been reasoned that the variability in the pattern of leading-following interactions creates opportunities for the team to engage in greater shared sensemaking regarding team challenges, constraints, and prospects through broader involvement of various team members and for individuals to enhance their capabilities and contributions to the team by adopting various roles (DeRue 2011). It may be because of these forms of learning and team interactions that shared and distributed leadership structures have been shown to relate to higher levels of team performance (e.g., Carson et al. 2007) and have been offered as evidence that teams displaying a shared leadership structure have developed a greater capacity for leadership (DeRue et al. 2015) (see Practical Implication 12).

Research suggests that when team members feel psychologically safe or interpersonally comfortable, are knowledgeable about each other's expertise, and share a similar mind-set regarding leadership, the emergence of a shared leadership structure is more likely. A sense of psychological safety within a team is developed when members trust one another and feel comfortable taking interpersonal risks with each other (Edmondson & Lei 2014), such as voicing their views (Carson et al. 2007) and/or attempting to claim a leadership identity (DeRue 2011). This sense of safety may originate in members' perceptions that their team comprises individuals who are warm, caring, and supportive (DeRue et al. 2015). In addition, when team members are knowledgeable of and see value in each other's expertise, they more easily share power and leadership within the team (Aime et al. 2014) (see Practical Implication 13). Knowledge of expertise is likely facilitated when teams work together for an extended period of time (Berman et al. 2002, Reagans et al. 2005). Finally, an aligned mind-set regarding whether leadership should be shared among many or relegated to just one person (Wellman et al. 2014) and the extent to which the team perceives a shared purpose

Practical Implication

11: Sharing of influence (i.e., leadership) requires a certain type of followership whereby followers view the leader as legitimate.

Practical Implication

12: The structure of leadership processes within a team indicates its degree of shared leadership capacity.

Practical Implication

13: Shared leadership capacity is enhanced when team members feel comfortable voicing their views, see value in each other's contributions, and hold a shared purpose.

(Carson et al. 2007) also relates to a team having a shared leadership structure and whether acts of informal leadership are supported and valued.

Once facilitating conditions are in place (i.e., psychological safety, knowledge of team members' expertise, shared mind-sets), Day et al. (2004) suggest that teamwork enables the development of greater leadership capacity in a team. Teamwork encompasses many different types of interactions (Argote & McGrath 1993), and team learning is perhaps the most critical to leadership development in teams. Team learning may span a range of activities, such as the socialization of new members, sharing and developing knowledge within a team, making knowledge accessible and useable among team members, and adapting to external demands (Argote et al. 2001). To date, leadership development research has focused more on those team learning activities that arise when individuals fluidly move in and out of particular team roles to aid in greater information exchange (e.g., Day et al. 2004, DeRue 2011).

Because this area is still in the early stages of scientific development, there is a need for greater conceptual clarity and elaboration. For instance, the distinction between team development and leadership development is not completely clear. Team development scholars often portray team learning and development as being facilitated by the team leader and focus on how the team can become more effective in its taskwork (e.g., Edmondson et al. 2003, Kozlowski et al. 1996, Marks et al. 2000). Team learning often focuses on understanding who knows what in the team and how team members can work together (e.g., Reagans et al. 2005) on learning through feedback seeking and reflecting on errors in taskwork (e.g., Edmondson 1999). The study of leadership development may encompass some of these elements, but its intent is to understand how to create processes, norms, and/or structures that fuel mutual influence processes among actors that can ultimately lead to better direction setting, greater alignment of effort and mind-sets, and enhanced commitment among actors engaged in shared work. Whereas studies that most directly inform leadership development provide insights into what gives rise to various leadership structures, such studies tend to examine the team's performance, leaving open the question of whether these various structures truly enhance the collective capability for direction, alignment, and commitment (i.e., leadership; Drath et al. 2008) within a team, as well as the team's ability to adapt to changing environmental challenges.

This pioneering work on leadership development at collective levels largely adopts an entity perspective analogous to the one discussed above. Thus far, scholars have taken snapshots of the leadership structure, and potentially its development, and sought to understand how individual perceptions shape the emergence of these structures (e.g., Carson et al. 2007, DeRue et al. 2015, Wellman et al. 2014). The interactional processes that are theorized to underlie the development of leadership structures tend not to be the focus of empirical investigations.

By contrast, recent work on leadership as an organizational phenomenon better foregrounds the social interactions that give rise to enhanced leadership (Ancona et al. 2015, Uhl-Bien et al. 2007). These accounts view leadership as a system of mobilizing and organizing effort to adapt to environmental demands. For instance, Ancona and colleagues (2015) offer an account of two organizations that are seeking to adapt to the market and are facing the societal challenge of being more environmentally savvy but that travel different paths to meeting this challenge. A comparison of these two cases reveals distinct approaches to formulating a direction to meet their challenge, aligning efforts, and generating commitment and enthusiasm among organizational stakeholders. A key distinction between these organizations hinges on their process of negotiating the formal authority structure and engaging key personnel in ways that harness their best contributions to build a sustainable green effort. Similarly, theoretical work depicts how organizational adaptability is achieved through resolving creative tensions that occur between more adaptive and forward-thinking pockets of an organization and those occupying positions in the formal

hierarchy (e.g., Uhl-Bien et al. 2007). Both perspectives highlight the types of social interactions that occur within organizations that generate greater clarity around direction, alignment of mind-sets and efforts, and enhanced commitment in response to business environment dynamics. Further, these views are particularly intriguing because they consider how leadership is generated and sustained within an organization where informal and formal leadership processes and structures exist—a reality that most research on shared leadership in teams has yet to consider.

Summary of Leadership Development

Analogous to how a team's overall capability is partly a function of the individual team members' capabilities (e.g., Hackman 1987), a team's capacity for leadership is partially derived from the aggregate of individual members' leadership capabilities (Day et al. 2004). How team members' leadership capabilities combine to produce a collective level of leadership capacity is an open question and one deserving greater theoretical and empirical attention. As suggested above, early indicators that a team's initial level of leadership capacity has the potential to develop further may include the existence of psychological safety among members, team members' knowledge of each other's expertise, a shared perspective regarding leadership and the team's direction, and team engagement in some form of team learning (see bottom middle of **Figure 1**). Leadership development is thought to be facilitated when teams are exposed to specific experiences or formal interventions (Salas et al. 2004b, 2009). This suggestion is reflected in **Figure 1** by the inclusion of collective experiences and interventions as factors that qualify the relationship between a team's initial collective leadership capacity and proximal developmental outcomes. Experiences and interventions that may enhance a team's leadership capacity include having team members work together for an extended period of time (e.g., Reagans et al. 2005), team training that focuses on enhancing teamwork (e.g., Marks et al. 2000) and team coordination (Salas et al. 2004a), and having a leader orient the team toward learning (e.g., Kozlowski et al. 1996). Whether such experiences and interventions are efficacious in building a team's overall capacity for leadership is yet to be verified by research.

From a foundation of these proximal indicators, a team may evolve to possess collective leadership capacity. To date, the literature has operationalized collective leadership capacity in terms of a shared or distributed leadership structure, which emerges as a relatively stable characteristic of the team that allows it to adapt to a range of environmental demands (e.g., Day et al. 2004, DeRue 2011). More recent literature on organizational leadership suggests that organizations best adapt to environmental demands and dynamics when they generate clearer direction, greater alignment, and enhanced commitment through specific forms of interactions among actors who may be exhibiting formal and/or informal leadership (e.g., Ancona et al. 2015, Uhl-Bien et al. 2007). The available evidence on shared, distributed, and organizational leadership all describes intensive interpersonal interactions as central to helping in the expansion of a collective's leadership capacity over time (e.g., Ancona et al. 2015, DeRue 2011, Klein et al. 2006); thus, this suggestion is reflected in **Figure 1** by the inclusion of intensive interpersonal interactions as a factor that moderates the relationship between proximal and distal outcomes at the collective level.

CONCLUSIONS AND IMPLICATIONS

The phenomenon of leadership development is complex and has implications at the individual, dyadic, team, and organizational levels of analysis, as well as longitudinally. The approaches to its study are varied and hinge to some degree on how scholars view leadership. Scholars who view individuals occupying formal leadership positions as being in a unique position to exert influence



Online Video: Lessons for Leadership Scholars: Where Can You Take Your Research?

(e.g., Likert 1967, McGregor 1960) center their study on the development of particular self-views and leadership capabilities that enable formal leaders to better set direction, create alignment, and build commitment and motivation (e.g., Day & Sin 2011, Dragoni et al. 2009, McCall et al. 1988). Scholars who prioritize leadership as a mutual influence process seek to understand how such influence processes develop among individual actors, recognizing that over time one person may not be the sole source of leadership (e.g., DeRue 2011, DeRue & Ashford 2010, McCauley et al. 2010). Finally, scholars who view leadership as a system of adaptation and coordination seek to understand how it emerges through harnessing dynamic tensions within the organization in forging broader capacity for direction, alignment, and commitment (e.g., Ancona et al. 2015, Drath et al. 2008, Uhl-Bien et al. 2007).

Similarly, in the leader development area, the emergence of different perspectives in terms of developing skills and competencies versus the whole person is fundamentally a debate about the nature of development. This divergence signifies that the field is collectively grappling with important questions, such as, what is leadership, and what is development. When harnessed appropriately, this divergence can be intellectually productive. For instance, leader development scholars are challenged to more thoroughly consider how the development of self-views and leadership capabilities enhances the ability to lead and follow—a challenge that might be aided by constructive-development theory (e.g., Kegan 1982, 1994), which outlines various developmental milestones at which adults come to view their relationships with others differently. Leadership development scholars are equally challenged to contemplate how the leadership capabilities of people within a dyad, unit, or organization influence the development of collective capacities for leadership and the conditions under which changes in the development of one particular actor's leadership influence the collective's capacity for leadership.

Throughout this review, we have noted where greater conceptual clarity is needed (see Table 1 for a summary of suggestions for future research). Indeed, the theoretical grounding of research is emergent and varied, reflecting how the topic of leadership development touches on literatures from adult development, employee learning and development, training, teams, and organization development, among others. For this reason, it is critical that leadership development scholars articulate how their focal constructs build from previous literature and describe how these constructs might be distinct from other related constructs (e.g., team development versus leadership development in teams). Additional conceptual clarity may be gained by articulating the context in which leadership development is being studied, as this would serve to clarify the limits of generalizability and enable a more mindful building of scientific advances. For instance, leader development of first-line organizational leaders is likely to be qualitatively different from that of executives. If so, articulating the similarities and differences would be useful to future work and application. Similarly, the work on the emergence of shared leadership has been conducted in teams with no formally designated leader. An articulation of the similarities and differences in how leadership develops in teams with a formal leader would help clarify the generalizability of the development of shared leadership and inspire future theoretical and empirical work in the area.

Development by its very nature involves a process of change that unfolds over time. To aid social scientists in research design, we have proposed various indicators suggesting that leadership development is occurring. Furthermore, we have discussed rough approximations of when these indicators are likely to be observed (i.e., proximal or distal), so as to better inform future research design choices (Mitchell & James 2001). These indicators are not exhaustive but rather illustrative given what researchers have uncovered thus far. In crafting a research design, we advocate for methodologies that have the best likelihood of generating insights into the process of development. Although challenging and time consuming to execute, methodologies that are particularly well suited to the task involve tracking individuals, teams, or organizations over time and capturing

Table 1 Suggestions for future research

Suggestion	Contribution
What is the proper way to conceptualize and measure leadership self-efficacy?	Construct clarity
What develops leaders' self-awareness regarding their leadership?	Evidence to bolster prior claims
Under what conditions do similar, reinforcing experiences build leaders' competencies for leadership? And, under what conditions do experiences that disrupt established routines facilitate development?	A reconciliation of findings offered by existing research
What type of support is needed to aid in leaders' development? Under what conditions and for what type of developing leaders?	Construct definition and theory building
Carefully consider the developmental stage and/or hierarchical level of the focal leaders to be sampled to better articulate the indicators of development.	Greater precision in study conceptualization and design
Carefully consider the timing of measurement in research design; work to capture indicators when they are roughly expected to emerge.	Greater precision in study conceptualization and design
Articulate more fully more distal outcomes of leader development processes and develop research designs to assess these distal outcomes.	Construct definition and research design templates
How and under what conditions does the exchange of social resources (e.g., support, information) become viewed as grants and claims for leader or follower identities?	Theoretical integration of entity and relational perspectives of leadership and its development
Which types of leaders and followers are likely to see leadership as co-created or something that is inherent to the position or individual?	Theoretical integration of entity and relational perspectives of leadership and its development
What is the difference between team development and leadership development?	Construct clarity
Under what conditions do various leadership structures enhance a collective's capacity for leadership (as opposed to team performance)?	Evidence to bolster conceptual suggestions and clarify boundary conditions
How does shared and distributed leadership emerge within contexts that contain a clear, organizational hierarchy?	Theoretical integration of entity and relational perspectives of leadership and its development

either quantitative assessments of particular indicators of development or qualitative data on the ongoing process of development, or both (Day 2011). Our review has featured research that has adopted qualitative and quantitative orientations in the study of leadership development, with each orientation offering its own unique advantages. We encourage continued use of these varied, and preferably longitudinal, methods.

Having conducted this research ourselves, we know it is not easy. Articulating constructs clearly without an established research infrastructure, specifying the process of development when theoretical issues are often unclear, and securing access to the most appropriate types of data (e.g., longitudinal, multisource) are challenging. At the same time, we believe academics cannot shy away from these challenges, no matter how daunting, because the topic is of paramount importance to many contemporary organizations. The development of leadership talent is often a strategic priority, and organizations struggle to figure out how best to do it. Given this, the time is right for academics to broker deeper partnerships with organizations to co-create practically useful and theoretically rigorous insights regarding leadership development. The rewards of such efforts lie in their potential to produce innovative advances in the science and practice of leadership development.

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