

Leadership Development: A Review and Agenda for Future Research

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Abstract

This chapter develops a conceptual framework that helps organize and synthesize key insights from the literature on leadership development. In this framework, called PREPARE, the authors call attention to the strategic purpose and desired results of leadership development in organizations. They emphasize how organizations can deliberately and systematically leverage a range of developmental experiences for enhancing the leadership capabilities of individuals, relationships, and collectives. Finally, they highlight how individuals and organizations vary in their approach to and support for leadership development, and how these differences explain variation in leadership development processes and outcomes. As an organizing mechanism for the existing literature, the PREPARE framework advances our understanding of what individuals and organizations can do to develop leadership talent, and highlights important questions for future research.

Key Words: Leadership, leadership development, leader development, training, learning, experience, coaching, feedback

Introduction

Contemporary organizations operate in environments characterized by rapid change and increasing complexity. Indeed, some historians believe that our world is undergoing a transformation more profound and far-reaching than any experienced since the Industrial Revolution (Daft, 2008). Advancements in technology are creating opportunities for new business models that can dramatically shift the competitive landscape of entire industries. Globalization and shifting geopolitical forces are permanently altering the boundaries of interorganizational collaboration and competition. In addition, a myriad of economic, environmental, and ethical crises are directly challenging the role of corporations in society, and highlighting the interdependence among business, government and social sectors. The result is organizations around the world and across a broad array of domains—industry,

government, military, not-for-profit, health care, and education—are adapting their strategies, structures, and practices with the intent of becoming more agile and responsive to these dynamic environments.

Because of these ongoing organizational transformations, effective leadership is needed more than ever. Leadership is one of the most important predictors of whether groups and organizations are able to effectively adapt to and perform in dynamic environments (Mintzberg & Waters, 1982; Peterson, Smith, Martorana, & Owens, 2003; Peterson, Walumbwa, Byron, & Myrowitz, 2009; Thomas, 1988; Waldman, Ramirez, House, & Puranam, 2001). As Bass and Bass (2008, p. 11) concluded, “when an organization must be changed to reflect changes in technology, the environment, and the completion of programs, its leadership is critical in orchestrating that process.” Consequently,

organizations are designating leadership as a top strategic priority and potential source of competitive advantage, and are investing in its development accordingly (Day, Harrison, & Halpin, 2009). For example, in 2009, almost a quarter of the \$50 billion that U.S. organizations spent on learning and development was targeted at leadership development (O'Leonard, 2010).

Despite the fact that organizations are increasing their investments in leadership development, there is an emerging consensus that the supply of leadership talent is insufficient to meet the leadership needs of contemporary organizations. According to a survey of 1,100 U.S.-based organizations, 56 per cent of employers report a dearth of leadership talent, and 31 per cent of organizations expect to have a shortage of leaders that will impede performance in the next four years (Adler & Mills, 2008). Likewise, a survey of 13,701 managers and HR professionals across 76 countries found that individuals' confidence in their leaders declined by 25 per cent from 1999–2007, and that 37 per cent of respondents believe those who hold leadership positions fail to achieve their position's objectives (Howard & Wellins, 2009). These data allude to an emerging leadership talent crisis where the need and demand for leadership surpass our ability to develop effective leadership talent.

Ironically, this leadership talent crisis is emerging at the same time the pace of scholarly research on leadership development is reaching a historical peak. Conceptual and empirical research on leadership development has proliferated through the publication of a number of books, including the *Center for Creative Leadership Handbook of Leadership Development* (Van Velsor, McCauley, & Ruderman, 2010), Day and colleagues' (2009) *Integrated Approach to Leader Development*, and Avolio's (2005) *Leadership Development in Balance*. Likewise, reviews of the leadership development literature point to rapid growth in the base of scholarly research on leadership development over the past 20 years (Collins & Holton, 2004; Day, 2000; Hernez-Broome & Hughes, 2004; McCall, 2004), and numerous special issues in management and psychology journals have been dedicated to the topic (DeRue, Sitkin, & Podolny, 2011; Pearce, 2007; Riggio, 2008). All of this scholarly literature is notwithstanding the thousands of popular press books and articles that have been written on the topic.

Indeed, the depth and richness of the existing literature has produced an array of important insights

about leadership development in organizations. For example, drawing from experiential learning theories (Dewey, 1938; Kolb, 1984), scholars have documented how lived experiences that are novel, of high significance to the organization, and require people to manage change with diverse groups of people and across organizational boundaries are important sources of leadership development (DeRue & Wellman, 2009; McCall & Hollenbeck, 2002; McCall, Lombardo, & Morrison, 1988; McCauley, Ruderman, Ohlott, & Morrow, 1994). Indeed, it was this research that led McCall (2004, p. 127) to conclude that "the primary source of learning to lead, to the extent that leadership can be learned, is experience." In addition, scholars have identified an array of personal attributes (e.g., learning orientation, developmental readiness) and situational characteristics (e.g., feedback, coaching, reflection practices) that influence how much leadership development occurs via these lived experiences (Avolio & Hannah, 2008; Alimo-Metcalfe, 1998; DeRue & Wellman, 2009; Dragoni, Tesluk, Russell, & Oh, 2009; Hirst, Mann, Bain, Pirola-Merlo, & Richver, 2004; Ting & Scisco, 2006). Moving beyond the sources and predictors of leadership development, researchers have also examined a multitude of outcomes associated with leadership development, including but not limited to the development of individuals' leadership knowledge, skills, abilities, motivations, and identities (Chan & Drasgow, 2001; Day & Harrison, 2007; DeRue & Ashford, 2010a; Mumford, Campion, & Morgeson, 2007; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000). Altogether, these conceptual articles and empirical studies provide substantial insight into a complex and multifaceted leadership development process, and point to various ways in which individuals and organizations can enhance (and impair) leadership development.

Despite notable progress in our understanding of leadership development, there are at least three reasons why this body of literature has not yielded the insights and breakthroughs that are needed to sufficiently inform and address the emerging leadership talent crisis. First, the existing literature is predominantly focused on individual leader development, at the expense of understanding the evolution of leading-following processes and the construction of leadership relationships and structures in groups and organizations (DeRue, 2011; DeRue & Ashford, 2010a). This focus on individuals as the target of development may stem from the broader leadership literature, which has

traditionally endorsed an individualistic and hierarchical conception of leadership (Bedeian & Hunt, 2006). However, there is an emerging shift toward thinking of leadership as a shared activity or process that anyone can participate in, regardless of their formal position or title (Charan, 2007; Day, Gronn, & Salas, 2004; Morgeson, DeRue & Karam, 2010; Quinn, 1996; Pearce & Conger, 2003). In turn, the leadership development literature needs to explain how these collective leadership processes develop and evolve over time.

Second, consistent with the focus on individuals, the existing literature generally endorses a narrow focus on the knowledge, skills, and abilities (KSAs) required for effective leadership (Mumford, Campion, & Morgeson, 2007; Mumford et al., 2000). One potential reason for the focus on KSAs is that much of the existing literature on leadership development is framed within the domain of human resource management, which often focuses on the training and transfer of KSAs (Saks & Belcourt, 2006). Another potential reason is that scholars have developed coherent theories and taxonomies of leadership KSAs, and there is clear evidence linking these leadership KSAs to individual leader effectiveness (Connelly et al., 2000; Mumford et al., 2007). Only recently have scholars begun to explore a wider range of leadership development outcomes, including individuals' self-concept and identity (Day & Harrison, 2007; DeRue & Ashford, 2010a; Lord & Hall, 2005), motivations related to leadership (Barbuto, 2005; Chan & Drasgow, 2001), and mental models of leadership (Lord, Brown, Harvey & Hall, 2001; Epitropaki & Martin, 2004; Lord, Foti, & De Vader, 1984). These alternative outcomes are important to understanding leadership development because it is possible that individuals are developing the KSAs necessary for effective leadership, but are choosing not to take on leadership roles because they do not see themselves as leaders, or they are not motivated to lead given the risks associated with it (Heifetz & Linsky, 2002). Although these leadership identities, motivations, and mental models could be the target of leadership development interventions, it is not clear based on the current research how malleable these attributes are, or what types of experiences or interventions would develop them.

Finally, consistent with Avolio's (2007) call for more integrative theory building in the leadership literature, our field lacks a coherent and integrative framework for organizing the existing literature on leadership development. With respect to

the emerging leadership talent crisis, this lack of an integrative, organizing framework is limiting progress in two ways. First, without an integrative understanding of the inputs, processes, and outcomes associated with leadership development, organizations are forced to speculate or rely on intuition as to what to develop, how to develop it, where and when it should be developed, and who is ready (or not ready) for development. Second, it remains unclear what the critical knowledge gaps are related to leadership development, and where future research needs to focus in order to help organizations more effectively identify and develop future leadership talent.

Thus, the aim of this chapter is to develop an organizing framework for the inputs, processes, and outcomes associated with leadership development, synthesize key insights from the existing literature, and identify critical knowledge gaps that can serve as the impetus for future research on leadership development. We seek to accomplish these goals, as well as complement and extend prior reviews of this literature (Brungardt, 1997; Day, 2000), by first defining leadership development and articulating some of the key assumptions associated with this definition. We then introduce an organizing framework called PREPARE, and use this framework to integrate key insights from the existing literature. We conclude by summarizing an agenda for future research based on the PREPARE framework, with the purpose of extending existing theories of leadership development and advancing our understanding of what individuals and organizations can do to identify and develop leadership talent.

Leadership Development: A Definition

Leadership is a social and mutual influence process where multiple actors engage in leading-following interactions in service of accomplishing a collective goal (Bass & Bass, 2008; Yukl, 2010). In his oft-cited review of the leadership development literature, Day (2000) distinguishes between two forms of development. Individual leader development focuses on an individual's capacity to participate in leading-following processes and generally presumes that developing an individual's leadership KSAs will result in more effective leadership. A key limitation of this perspective is that it does not account for leadership as a complex and interactive process among multiple actors who are both leading and following, or that the relationships that are created and maintained within the social context can have a strong influence on how

leadership processes emerge and evolve (Day & Halpin, 2004; DeRue, 2011). The second form, leadership development, focuses on developing the capacity of collectives to engage in the leadership process. Whereas leader development focuses on individuals and the development of human capital, leadership development attends to the interpersonal dynamics of leadership and focuses on the development of social capital. Specifically, leadership development refers to building the mutual commitments and interpersonal relationships that are necessary for leading-following processes to unfold effectively within a given social context.

Historically, the existing literature has focused on individual leader development at the expense of understanding and explaining leadership development (Day, 2000; Drath et al., 2008; Van Velsor, McCauley, & Ruderman, 2010). In fact, because of the dearth of research on leadership development, prior reviews of the existing literature have been forced to acknowledge the importance of leadership development but then go on to narrowly focus on individual leader development (e.g., Day, 2000; McCauley, 2008). This narrow focus on leader development is unfortunate because both leader and leadership development are necessary but insufficient for understanding and explaining how leadership capacity is developed, especially as organizations embrace more collective and shared models of leadership (Pearce & Conger, 2003).

In the present article, we broaden the definition of leadership development to include both individual and collective forms of development. Specifically, we define leadership development as the process of preparing individuals and collectives to effectively engage in leading-following interactions. Several assumptions are embedded in this definition. First, we assume that both leader and leadership development are essential for enabling more effective leadership processes in organizations. Individuals need the leadership KSAs, motivations, and beliefs necessary to effectively participate in the leading-following process, but effective leading-following interactions also involve the emergence of leader-follower relationships and collective leadership structures. In addition, we assume that leader and leadership development are interdependent. Developmental experiences or interventions designed to promote more effective leadership relationships will also affect individuals' KSAs, beliefs, and motivations. Likewise, actions taken to enhance individual leadership capabilities will indirectly alter the landscape of leading-following relationships among actors.

Therefore, the conceptual model we use to structure our literature review will incorporate both individual leader development and the development of leadership relationships and collective structures.

Our expectation is that the framework developed herein will be used by researchers in several ways. First, as noted above, the framework is purposefully integrative across a range of levels of analysis and developmental approaches, with the intent of motivating scholars to adopt a more integrative approach to studying leadership development. For example, scholars might use the framework to emphasize the intersection of individual leader development with more relational or collective forms of development, or ways in which formal training might complement informal, on-the-job development. Second, researchers can use the framework to conceptualize a broader range of outcomes associated with leadership development. Historically, leadership development research has focused narrowly on the development of individual skills or competencies, but this framework emphasizes a range of individual, relational, and collective outputs of leadership development. Finally, we expect scholars can use the framework to situate their individual studies within a broader nomological network of research on leadership development, which in turn will identify key gaps in the literature and advance the accumulation of knowledge related to leadership development.

PREPARE: An Organizing Framework

As illustrated in Figure 37.1, PREPARE is an acronym that refers to the individual components of our organizing framework. The PREPARE framework consists of seven key components: (1) Purpose, (2) Result, (3) Experience, (4) Point of Intervention, (5) Architecture, (6) Reinforcement, and (7) Engagement.

Purpose refers to why an organization is engaging in leadership development: in particular the role that leadership development plays in enabling an organization to achieve its strategic objectives and performance goals. The *Result* component refers to the desired outcome, what is actually trying to be developed, such as individuals' cognitive schemas related to leadership (e.g., implicit leadership theory), the affective or relational ties among group members (e.g., trust), or the organizational climate for shared leadership. *Experience* refers to the mechanism through which leadership development occurs, specifically what experiences (e.g., formal training, on-the-job assignments) will serve as the basis for challenging individuals and/or collectives

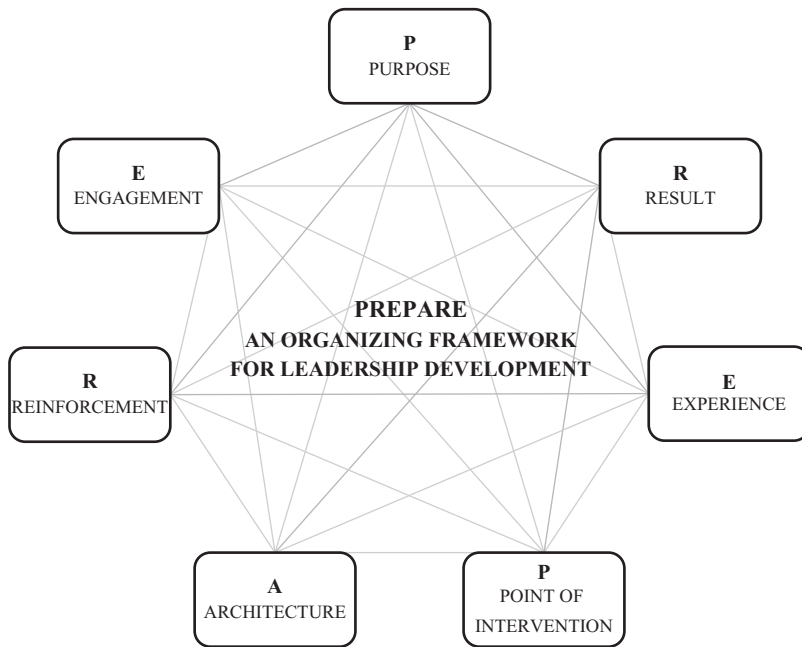


Figure 37.1. PREPARE Framework for Leadership Development.

to improve their leadership capacity. These experiences vary in their formality (e.g., on-the-job assignments, classroom experiences), mode (e.g., direct or vicarious) and content (e.g., the degree of developmental challenge). The *Point of Intervention* component represents the intended target of leadership development (i.e., who is being developed), and the attributes associated with that target. The target can be at the individual level (e.g., developing an individual’s skills), the relational level (e.g., developing the leading-following relationship among actors), or the collective level (e.g., shared team leadership). *Architecture* refers to features of the organizational context (e.g., practices, processes, climate) that are designed to facilitate and support leadership development. The *Reinforcement* components refer to the temporal sequencing of developmental experiences, and the timing of those experiences. Finally, the *Engagement* component refers to the ways in which individuals and collectives enter, go through, and reflect on the leadership development process.

Each of these seven dimensions receives a different level of attention in the existing literature. For example, scholars frequently examine how the organizational architecture (e.g., 360° feedback, mentoring, and coaching programs) supports individual leader development (e.g., Alimo-Metcalf, 1998; Brungardt, 1997), but few scholars consider the purpose of leadership development or how leadership development is aligned (or not aligned) with

organizational strategy. Likewise, scholars rarely theorize or empirically examine how developmental experiences should be sequenced so that they are reinforcing over time. Our contention is that each of these dimensions is an essential ingredient to successful leadership development, and that the design of effective leadership development systems must address each of these components. Our hope is that the PREPARE framework helps organize key insights from the existing literature in a way that synthesizes what is known about leadership development, highlights questions that need to be addressed in future research, and provides guidance to individuals and organizations looking to improve their leadership talent. In the sections that follow, we review the base of scholarly research for each of the PREPARE dimensions, and identify key knowledge gaps that can serve as the impetus for future research.

Purpose: Aligning Leadership Development and Organizational Strategy

Theories of strategic human resource management explain how different patterns of human resource management (HRM) practices and activities enable organizations to achieve their strategic objectives and goals (Wright & McMahan, 1992; Wright & Snell, 1998). Drawing from theories of fit and congruence (Nadler & Tushman, 1980;

Venkatraman, 1989), these strategic HRM theories emphasize that organizational performance is in part a function of the alignment between HRM practices and the organization's strategy (Schuler & Jackson, 1987). Indeed, empirical research has established that a key predictor of organizational productivity and performance is the alignment between firm strategy and the configuration of HRM practices (Delery & Doty, 1996; Youndt, Snell, Dean & Lepak, 1996).

With respect to leadership development practices, organizations often speculate that alignment between organizational strategy and leadership development practices is important for maximizing the return on investment in leadership development (Zenger, Ulrich, & Smallwood, 2000). For example, in their report on the *Top Companies for Leaders*, Hewitt & Associates (2009) concluded that "...HR leaders and senior management are finding they must rethink leadership selection and development strategies—to better align with organizational goals, cost pressures, and competing resources." Similarly, in a review of best-practices research on leadership development, McCauley (2008) underscored how, in best-practice organizations, leadership development practices are closely tied to the vision, values, and goals of the business, and that leadership development is a core part of the organization's strategic planning processes. These conclusions are consistent with McCall and Hollenbeck's (2002) contention that global leaders are best developed through challenging experiences and assignments that are tied to the strategic imperatives of the business.

Despite the fact that organizations are emphasizing strategic alignment with leadership development practices, there is currently a lack of scholarly research on the mechanisms through which leadership development can support organizational goals and strategies, or the implications of alignment in terms of return on investments in leadership development. The research on strategic HRM suggests that alignment with organizational strategy will be essential for developing leadership development systems that promote and enhance organizational effectiveness, but research is needed to connect these insights about general HRM practices to leadership development specifically. Currently, the field of leadership development studies lacks a theoretical or empirical basis for explaining how organizations can achieve strategic alignment with leadership development practices, or why strategic alignment enhances the value of leadership development to the organization.

In fact, there are some trends in the leadership development literature that suggest a sort of duality with respect to aligning leadership development with organizational strategy. On the one hand, scholars suggest that an important source of leadership development is having individuals and groups engage in challenging assignments that are directly linked to firm strategy and the future directions of the business (McCall et al., 1988; McCall & Hollenbeck, 2002). On the other hand, organizations are increasing outsourcing leadership development by placing employees in challenging, developmental experiences that are outside of the organization and have very little to do with the organization's strategy (e.g., IBM's Peace Corps; Colvin, 2009). There are likely benefits to both approaches. Strategic alignment should not only enhance employees' leadership development but also directly contribute to the business needs of the organization. Yet, enabling employees to explore developmental opportunities outside of the core business may also broaden the employee's perspective and introduce motivational benefits that might not be possible within the context of the core business. Future research that examines the value of strategic alignment in leadership development, and how best to balance developmental experiences that are inside the organization's core business with experiences outside of the core business, would be particularly noteworthy. This research would go a long way toward helping organizations explain and understand the business returns associated with leadership development.

Result: Identifying the Desired Outcome of Leadership Development

Organizations invest considerable resources into identifying the "holy grail" of leadership competencies that are needed for success in their organization (Alldredge & Nilan, 2000; Intagliata, Ulrich, & Smallwood, 2000). As described by Intagliata et al. (2000, p. 12), "This holy grail, when found, would identify a small set of attributes that successful leaders possess, articulate them in ways that could be transferred across all leaders, and create leadership development experiences to ensure that future leaders possess these attributes." Indeed, organizations routinely use their leadership competency models not only for leadership development but also for performance management, recruiting and staffing, and succession planning (Gentry & Leslie, 2007; McCauley, 2008). The challenge, however, is that it is unclear whether there is such a "holy grail," or

even a coherent set of attributes or competencies that are needed for effective leadership.

Scholarly research on leadership development has considered a range of development outcomes, including leadership KSAs (Hulin, Henry & Noon, 1990; Mumford et al., 2007), forms of cognition such as leadership schemas and identities (Day & Harrison, 2007; DeRue, Ashford, & Cotton, 2009; Shamir & Eilam, 2005), and the motivations associated with taking on leadership roles and responsibilities (Chan & Drasgow, 2001; Kark & Van Dijk, 2007). In addition, scholars have looked beyond individual attributes and examined the development and evolution of leader-follower relationships (DeRue & Ashford, 2010a; Nahrgang, Morgeson, & Ilies, 2009). Although we do not intend to discover the “holy grail” of leadership competencies in this chapter, we can identify three broad themes of development outcomes in the existing literature: behavioral, affective/motivational, and cognitive. Further, each of these themes can be conceptualized at the individual, relational, or collective level of analysis, although most existing research is at the individual level.

Behavioral. We conceptualize behavioral outcomes in leadership development as the acquisition of leadership KSAs that are necessary for the performance of specific leadership behaviors, or positive changes in the performance of actual leadership behaviors. In the current literature, leadership development scholars have considered a wide range of these behavioral outcomes. One influential article in this domain is Mumford et al.’s (2007) leadership skills strataplex. In this article, the authors identify four distinct categories of leadership skill requirements: cognitive skills, interpersonal skills, business skills, and strategic skills. Then, in a sample of 1023 professional employees in an international agency of the U.S. government, the authors find empirical support for the four distinct categories of leadership skill requirements, and show that different categories of leadership skill requirements emerge at different hierarchical levels of organizations. For example, basic cognitive skills are required across all hierarchical levels, but strategic skills become important only once employees reach senior-level positions.

Moving beyond the acquisition of leadership skills, leadership scholars have also examined changes in the performance of actual leadership behaviors. For example, Barling, Weber, and Kelloway (1996) conducted a field experiment of 20 managers randomly assigned to either a control condition or a

leadership training condition. In the training group, managers received a one-day training seminar on transformational leadership, followed by four booster training sessions on a monthly basis. The control group received no such training. Drawing upon subordinates’ perceptions of transformational leadership behaviors, results showed that participants in the training group improved their performance of transformational leadership behaviors more so than participants in the control group. In a similar study design, Dvir and colleagues (2002) examined the impact of transformational leadership training on follower development and performance. In a sample of 54 military leaders, their results establish that transformational leadership training can increase leaders’ display of transformational leadership behaviors, which in turn have a positive effect on follower motivation, morality, empowerment, and performance.

Affect/Motivational. Most of the existing research has conceptualized and empirically studied leadership development in terms of behavioral outcomes, but scholars have recently begun to examine how individuals’ affective states and their motivations related to leadership influence how they engage in, go through, and process leadership experiences. For example, individuals’ positive and negative affective states explain not only their leadership effectiveness, but also how leaders influence followers’ affect and behavior (Bono & Ilies, 2006; Damen, Van Knippenberg, & Van Knippenberg, 2008; Ilies, Judge, & Wagner, 2006). Similarly, emotional intelligence, or the ability to understand and manage moods and emotions in the self and others (Mayer, Salovey, Caruso, & Sitarenios, 2001), can contribute to effective leadership in organizations (George, 2000; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003). In terms of motivation, scholars have suggested and found some empirical support for the notion that individuals have different levels of motivation for leadership, and that these motivations can impact participation in leadership roles and leadership potential (Chan & Drasgow, 2001; Kark & van Dijk, 2007).

However, in contrast to behavioral outcomes, there is very little empirical research on how individuals or collectives develop the affective or motivational attributes that promote effective leadership. Rather, most of the existing research focuses on how these affective and motivational attributes influence the leadership process or the individual’s effectiveness as a leader (e.g., Atwater, Dionne, Avolio, Camobreco, & Lau, 1999; Chemers, Watson, &

May, 2000). The antecedents to these attributes or the processes through which these attributes are developed generally remain a mystery. Notable exceptions include Chan and Drasgow's (2001) study of Singaporean military cadets, where they find that personality, cultural values such as collectivism and individualism, and prior leadership experience predict whether individuals are motivated to take on leadership roles and responsibilities. Likewise, Boyce, Zaccaro, and Wisecarver (2010), in their study of junior-military cadets, find that individuals who have a mastery and learning orientation are more motivated than people without this orientation to engage in leadership development activities, and in addition, are more skilled at self-regulatory, learning processes. Yet, the developmental implications of these studies are unclear given that attributes such as personality and values can be fixed properties of a person (Costa & McCrae, 1994; Schwartz, 1994). Another exception is Shefy and Sadler-Smith's (2006) case study of a management development program implemented in a technology company, whereby focusing on non-Western principles of human development (e.g., harmony and balance), the program enhanced individuals' emotional awareness and interpersonal sensitivity.

Notwithstanding these few exceptions, there is a considerable need for research on the development of the affective and motivational attributes that enable individuals to effectively participate in the leadership process. For example, affective events theory (Weiss & Cropanzano, 1996) explains how work events interact with dispositional characteristics and situational factors to influence individuals' affective states. This focus on event-level phenomena is consistent with the notion that discrete work events and experiences are the primary source of leadership development (McCall, 2004), yet these two literatures have yet to be integrated. Future research that explains how work events and experiences influence the development of particular affective states, and how these affective states enable more effective leadership and leadership development processes, would help integrate and extend theories of affect and leadership development. Likewise, a fundamentally important question that needs to be explored further is why some people are more motivated than others to take on leadership roles and responsibilities, even when they are not designated as a formal leader. This research needs to move beyond a focus on stable individuals' differences, and consider how the social and

organizational context enables (or constrains) individual motivation for leadership. In particular, this research could build on prior theories of the rewards and risks associated with leadership (Heifetz & Linsky, 2002) to understand how people process, cognitively and emotionally, the rewards and risks of assuming leadership roles and responsibilities in different group and organizational contexts.

Cognitive. Cognitive outcomes refer to the mental models and structures that individuals and collectives rely on to participate in and carry out leadership processes. In this sense, individuals and collectives develop their capacity for effective leadership by expanding or changing their conceptual models and mental structures of what it means to lead, the way in which leading-following processes unfold, and/or their conception of themselves as leaders and followers. Indeed, a commonly espoused purpose of using multi-rater feedback for leadership development is to create self-awareness and stimulate reflection related to what leadership means in a given setting and to expand people's conceptions of their roles as leaders (Yammarino & Atwater, 1993). Developing these cognitive models and mental structures are important because they impact how people engage in leadership processes (Shamir & Eilam, 2005).

In the existing literature, there are at least three cognitive outcomes that seem particularly important for leadership development, especially as organizations embrace collective and shared forms of leadership. First, an individual's self-concept or identity as a leader is important for determining how that person will engage in the leadership process (Day & Harrison, 2007; DeRue & Ashford, 2010a; DeRue, Ashford & Cotton, 2009; Hall, 2004; Shamir & Eilam, 2005). Developmental experiences allow individuals to create, modify, and adapt their identities as leaders by "trying on" different possible self-concepts (Ibarra, 1999) and engaging in the identity work that is necessary to clarify one's self-concept (Kreiner, Hollensbe, & Sheep, 2006). Importantly, this identity development is not limited to the individual level, as leadership development can help individuals construct leadership identities at the relational and collective levels of analysis, which then become the basis for the formation of effective leading-following relationships (DeRue & Ashford, 2010a). In addition, with the increasing interest in ethical leadership and moral psychology (Aquino & Reed, 2002; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009), research on the development of individual and collective

levels of moral identity may prove to be particularly important as leadership development outcomes.

Another potentially important cognitive outcome for leadership development is individuals' implicit theories of leadership. Implicit leadership theories (ILTs) refer to people's cognitive schemas for what personal attributes and behavioral tendencies make for an effective leader, and these ILTs can have a significant impact on individuals' perceptions of who is (and is not) a leader in a given context (Epitropaki & Martin, 2004; Lord, Foti, & De Vader, 1984; Rush, Thomas, & Lord, 1977). There is some research evidence supporting the idea that these ILTs emerge as a result of cultural background (House, Javidan, Hanges, & Dorfman, 2002), media influence (Holmberg & Akerblom, 2001), and life experience (Keller, 2003). However, much more research is needed to clarify the origin of these beliefs about prototypical leaders, as well as what organizations can do to modify these beliefs. It is quite possible that many people choose not to take on leadership roles because they perceive a misfit between their own self-concept and what they believe to be prototypical of an effective leader. However, it is also possible that organizations can change these perceptions and create a fit between people's self-concept and their ILT, thereby engendering a greater propensity to step up and take on leadership.

Finally, scholars are beginning to suggest that individuals not only have implicit theories about who is prototypical of an effective leader, but that individuals also have implicit theories about how leadership is structured in groups. For example, DeRue and Ashford (2010a) proposed the concept of a leadership-structure schema, which refers to whether individuals conceptualize leadership as zero-sum and reserved for a single individual within a group (often the designated leader), or whether leadership can be shared among multiple group members. Following up on this proposition, there is emerging empirical evidence suggesting that not only do individuals possess different leadership-structure schemas, but also that these schemas are malleable and can be developed (Hinrichs, Carson, Li, & Porter, 2011; Wellman, Ashford, DeRue, & Sanchez-Burks, 2011). Future research that examines the developmental interventions that alter the leadership-structure schemas of individuals and collectives, and the implications for group process and performance, would be particularly important for promoting more shared leadership in organizations.

In addition to behavioral, affective/motivational, and cognitive development outcomes, leadership development scholars have also examined changes in overall leadership performance or leadership emergence (e.g., Atwater, Dionne, Avolio, Camobreco, & Lau, 1999). Given that it is rare for empirical studies to model changes in leadership behavior or performance, these studies offer valuable insight into the predictors of leadership development. However, because they focus on overall performance changes and rarely experimentally manipulate the developmental intervention, these studies offer less insight into what is actually being developed or causing the observed change in leadership performance. On the one hand, it might be that individuals are developing new leadership skills or motivations. On the other hand, it is also possible that the context is changing in ways that enable individuals' to engage in more effective leadership behavior, but that no meaningful development is occurring. For future research, we recommend scholars assess change over time in specific behavioral, affective/motivational, and/or cognitive outcomes, which will provide more insight into the underlying mechanisms explaining improvements in leadership performance or emergence.

Experience: Developing Leadership through Lived Experience

Drawing on experiential learning theories (Dewey, 1938; Knowles, 1970; Kolb, 1984), scholars at the Center for Creative Leadership conducted the early research on the role of experience in leadership development (McCall et al., 1988). This research then spawned a multitude of follow-up studies exploring a range of leadership development experiences, and there is now considerable consensus in the existing literature that the primary source of leadership development is experience (McCall, 2004; Ohlott, 2004; Van Velsor & Drath, 2004). As Mumford and colleagues (2000) note, without appropriate developmental experience, even the most intelligent and motivated individuals are unlikely to be effective leaders.

The existing research on experience-based leadership development spans across a wide range of different types of experiences, including informal on-the-job assignments (McCall et al., 1988), coaching and mentoring programs (Ting & Sciscio, 2006), and formal training programs (Burke & Day, 1986). A common assumption in the existing literature is that 70 per cent of leadership development occurs via on-the-job assignments, 20 per cent

through working with and learning from other people (e.g., learning from bosses or coworkers), and 10 per cent through formal programs such as training, mentoring, or coaching programs (McCall et al., 1988; Robinson & Wick, 1992). Despite the popularity of this assumption, there are four fundamental problems with framing developmental experiences in this way. First and foremost, there is actually no empirical evidence supporting this assumption, yet scholars and practitioners frequently quote it as if it is fact. Second, as McCall (2010) appropriately points out, this assumption is misleading because it suggests informal, on-the-job experiences, learning from other people, and formal programs are independent. Yet, these different forms of experience can occur in parallel, and it is possible (and likely optimal) that learning in one form of experience can complement and build on learning in another form of experience. Third, it is inconsistent with the fact that a large portion of organizational investments are directed at formal leadership development programs (O'Leonard, 2010). It is certainly possible that organizations are misguided in their focus on and deployment of these programs (Conger & Toegel, 2003), but we are not ready to condemn formal programs given the lack of empirical evidence. Finally, it is possible that the "70:20:10" assumption leads organizations to prioritize informal, on-the-job experience over all other forms of developmental experiences, which some scholars argue allows leadership development to become a "haphazard process" (Conger, 1993, p. 46) without sufficient notice to intentionality, accountability, and formal evaluation (Day, 2000).

We offer an integrative framework for conceptualizing the different forms of developmental experience, including both formal and informal developmental experiences. Specifically, we propose that developmental experiences are best described and understood in terms of three dimensions: formality, mode, and content.

Formality. The formality dimension ranges from formal to informal. Formal developmental experiences are activities designed with the intended purpose of leadership development, which would include leadership training programs and interventions. In contrast, informal developmental experiences occur within the normal context of everyday life and are often not designed for the specific purpose of leadership development. Another way the formal versus informal distinction appears in the literature is when Avolio and colleagues discuss planned and unplanned events that serve as

"developmental triggers" (Avolio, 2004; Avolio & Hannah, 2008). These trigger events are experiences that prompt a person to focus attention on the need to learn and develop, but as Avolio and his colleagues propose, formal training that is planned and informal experiences that are unplanned can both serve as developmental triggers.

One assumed benefit of formal developmental experiences is that they allow individuals to spend time away from the workplace, where they are free to challenge existing ways of thinking and reflect more deeply on the lessons of experience (Fulmer, 1997). Indeed, meta-analyses by Burke and Day (1986) and Collins and Holton (2004) suggest that formal leadership programs have a positive impact on employees' acquisition of new knowledge, behavior change, and performance. However, as noted by Collins and Holton (2004), formal development programs have a stronger, positive effect on knowledge outcomes in comparison to behavior or performance outcomes. One reason for this differential effect could be that program participants acquire new knowledge and skills, but then encounter barriers to transferring those lessons to their actual jobs (Belling, James, & Ladkin, 2004).

For example, in a study of 95 managers engaged in a formal development program in the United Kingdom, Belling and her colleagues (2004) found that participants perceived significant barriers to their ability to transfer lessons from the program back to the workplace. These barriers included individuals' lack of motivation, as well as organizational factors such as time constraints, lack of managerial support, and a lack of opportunity to apply new skills. Similar barriers appear in McAlearney's (2006) interviews with 160 health care managers, where program participants report that variability in organizational commitment to leadership development has a strong influence on whether they will be able to transfer new knowledge to their actual work. Similarly, Gilpin-Jackson and Bushe's (2007) case study of 18 participants in a Canadian leadership development program reinforces these findings. In this study, participants reported fears about violating organizational norms by applying new techniques learned in the program. To address these barriers, a common suggestion in recent research on formal leadership development programs is to have intact teams from the same organization participate in the program together, which might help develop a common understanding of the lessons learned and increase the likelihood that behavior changes would be welcomed upon returning to

the workplace (Conger & Benjamin, 1999; Umble et al., 2005).

In part to address the barriers associated with formal leadership development programs, and in part realizing the potential learning value of on-the-job experience, scholars have also investigated the developmental value of informal, on-the-job experiences (Davies & Easterby-Smith, 1984; DeRue & Wellman, 2009; Dragoni et al., 2009; McCall et al., 1988; McCauley et al., 1994; Morrison & Hock, 1986; Ohlott, 2004; Wick, 1989). According to Murphy and Young (1995), informal learning refers to learning that takes place outside of organized, structured learning processes such as institutionally based degree or training programs. These informal developmental experiences occur within the normal course of work and life, and it is this contextual groundedness that scholars believe provides greater developmental “punch” relative to formal programs (Day, 2000; Dotlich & Noel, 1998).

For example, DeRue and Wellman (2009) examined how challenging, on-the-job experiences promote the acquisition of cognitive, interpersonal, business, and strategic leadership skills. Based on a sample of 225 on-the-job experiences across 60 managers from a range of organizations, the results of this study demonstrate that the relationship between developmentally challenging experiences and leadership skill development exhibits a pattern of diminishing returns, such that on-the-job experiences are developmental but can become too challenging and actually impair an employee’s development. This research refines the common assumption that challenging employees beyond their current skill set promotes leadership development—there is such thing as “too much” challenge. Consistent with these findings, research suggests that many of the same organizational factors that enhance the efficacy of formal programs are necessary for enabling informal learning through experience, including organizational commitment, feedback, managerial support, and a climate promoting learning and experimentation (Mumford, 1980; Robinson & Wick, 1992).

Mode. Learning can occur as individuals directly engage and participate in developmental experiences, but learning can also occur vicariously through observing others and learning from their experiences. Indeed, scholars have long argued that one of humankind’s differentiating cognitive capabilities is the ability to learn vicariously (Anderson & Cole, 1990; Bandura, 1986). The mode dimension reflects whether the developmental experience

is characterized by direct or vicarious learning. Both direct and vicarious learning are possible in either formal or informal developmental experiences. For example, in a formal development program, vicarious learning can occur through observing other participants engage in various elements of the program. Likewise, in informal experiences, individuals can be directly involved, but it is also possible that significant learning can occur by observing and modeling others.

Most of the existing literature on leadership development focuses on a direct learning mode, specifically on how individuals develop leadership capabilities as they engage in and solve real-life organizational problems (Revans, 1980). As Smith (2001, p. 36) advocates, “we can only learn about [something] by doing it, and then thinking over carefully what happened, making sense of the lessons, and working through how the learning can be built on and used next time around.” Examples of direct learning approaches to the study of leadership development not only include recent research on the role of experience in leadership development (e.g., DeRue & Wellman, 2009; Dragoni et al., 2009), but also studies investigating how individuals and groups develop leadership capacity through direct involvement in formal training programs.

Although most of the existing literature focuses on a direct mode of experience, there are several noteworthy exceptions that emphasize the developmental value of observational learning. For example, McCall and colleagues (1988) emphasized that “notable people” can be an important source of learning about leadership and management; in most cases, these notable people included bosses who were deviant from the norm, either as exceptional performers or shockingly poor performers. Likewise, in interviews with six directors of a European, multinational company, Kempster (2006) found that observational learning was an important source of leadership development, although interviewees had a difficult time immediately recognizing the value of these indirect or vicarious forms of learning. Based on this research, it is possible that indirect forms of experience are more valuable than what is actually recognized in practice, and future research needs to further investigate how vicarious and observational learning can augment and/or complement direct forms of developmental experience.

Content. The final dimension along which developmental experiences vary is with respect to their content. The interest in experience as a vehicle for learning dates back to ancient philosophy—for

example, Aristotle's claim that "...for the things we have to learn before we can do them, we learn by doing them." However, it is not until recently that scholars have begun to develop a theory explaining how the content of lived experiences influences the developmental value of those experiences. In particular, experiences that present individuals with novel and ambiguous challenges force individuals to extend and refine their existing knowledge structures and skills (McCall et al., 1988). These different forms of challenge represent the content of experience.

For example, in a study of 692 managers from 5 large corporations and 1 governmental agency, McCauley and colleagues (1994) demonstrated that most development occurred in experiences consisting of significant job transitions (e.g., unfamiliar responsibilities), or task-related challenges such as creating change, managing large amounts of scope and scale, and/or influencing people without authority. Likewise, other studies exploring similar forms of experience content have linked these content dimensions to enhanced individual motivation and more creative decision making (Thompson, Hochwarter, & Mathys, 1997), as well as greater individual flexibility and adaptability (Campion, Cheraskin, & Stevens, 1994). Indeed, one reason scholars advocate the developmental value of international assignments is that the content of international assignments includes unfamiliar responsibilities, numerous task-related challenges, and a variety of challenges related to cultural diversity and assimilation (Caligiuri, 2006; McCall & Hollenbeck, 2002).

Beyond these positive content dimensions, scholars have also identified ways in which the content of experiences can detract from or impair leadership development outcomes. For example, in the same McCauley et al. (1994) study, experiences that were comprised of obstacles such as a difficult boss or a lack of top-management support detracted from individual learning. In addition, it is possible that the same content dimensions that promote learning and development can become overwhelming and impair learning. In their study, DeRue and Wellman (2009) showed that, when the content of an experience presents individuals with demands that far exceed their current capabilities, individuals get cognitively and emotionally overwhelmed, and as a result, leadership development suffers. From these studies, a number of interesting research questions emerge. For example, it is not clear when and why these particular types of challenges overwhelm

individuals and detract from learning, as opposed to stretching employees in positive, developmental ways. One possible explanation is that people vary as to whether they see challenging experiences as having potential for growth and mastery, or the potential for personal harm or loss (Folkman & Lazarus, 1985), and these different orientations influence how people go through their experiences and ultimately what they gain from those experiences. Future research that investigates the personal and situational factors that explain these differences in orientation across different content dimensions would help organizations construct experiences and allocate people to experiences in ways that reduce perceptions of threat and enhance the perceived developmental value of experience. This research could also help address concerns over high rates of voluntary turnover after employees engage in challenging, on-the-job experiences such as expatriate assignments (Black, Gregersen, & Mendenhall, 1992).

Point of Intervention: Determining the Level of Analysis in Leadership Development

The current literature on leadership development spans across three levels of analysis. In particular, the point of intervention for leadership development initiatives can be at the individual level, the relational level, or the collective level. By a large margin, most of the existing research on leadership development is conducted at the individual level. In these studies, development is generally conceptualized as a positive change in the leadership capabilities of individuals, and there is a predominant focus on how individual attributes (e.g., KSAs, personality, prior experience) impact individual-level learning and development. For example, Mumford et al. (2000) examined how the ability, personality, and motivation of junior Army officers explain their leadership development, which in this case was operationalized as individual career success (i.e., reaching senior-level management positions). More recently, scholars have begun to examine how individuals vary in their readiness for leadership development (Avolio & Hannah, 2008), and these different levels of readiness are based on individual differences such as learning orientation, self-concept clarity, and efficacy beliefs. Indeed, several studies have empirically documented how different facets of developmental readiness can accelerate or accentuate learning in the context of developmental experiences. For instance, in a sample of 218

junior-level managers from a wide range of firms and industries, Dragoni et al. (2009) showed how learning orientation enhances the developmental value of individuals' on-the-job experiences. All of these examples portray leadership development in terms of individual-level abilities and performance.

Despite the value of understanding leadership development at the individual level, there are several reasons why our field needs to further extend the research on leadership development to relational and collective levels of analysis. First, leadership theory and research have widely adopted more relational and collective forms of leadership (e.g., Carson et al., 2007; Pearce & Conger, 2003), but the leadership development literature has yet to develop the conceptual or empirical knowledge base necessary for understanding how relational or collective forms of leadership develop. Second, organizations are shifting toward more collective forms of leadership development—for example, developing cohorts of managers or intact teams altogether (Conger & Benjamin, 1999)—but these decisions about how best to develop leadership talent lack a theoretical or empirical basis. Third, most research on leadership development draws on human learning theories that were developed to explain how individuals learn (e.g., Dewey, 1938; Knowles, 1970; Kolb, 1984), but it is not clear that these individual-level learning theories will be able to fully account for the group dynamics involved in relational or collective leadership development.

More recently, however, there is an emerging trend toward the study of relational and collective forms of leadership development. At the relational level, leadership development can be conceptualized as the emergence and development of leadership (leader-follower) relationships (DeRue & Ashford, 2010a). The origin of this perspective can be traced back to the initial work on leader-member exchange (LMX), where scholars explained how leader-follower relationships and structures are a function of interactional processes (Dienesch & Liden, 1986; Graen & Scandura, 1987). Although most of the subsequent LMX research focused on the effects of LMX rather than the development of these relationships, there are a few exceptions (Bauer & Green, 1996). For example, Nahrgang et al. (2009) examined the development of 330 leader-follower dyads over 8 weeks in the context of MBA-student teams. Their findings suggest that leaders and followers form initial perceptions of relationship quality based on different personality characteristics, but over time, both leaders and followers

refine their perceptions of the leader-follower relationship based on the performance of their dyadic partner.

Beyond the relational level, there is also an emerging shift in the literature toward understanding how collective leadership structures emerge and develop over time (Mehra, Dixon, Brass & Robertson, 2006; Mehra, Smith, Dixon, & Robertson, 2006; Pearce & Conger, 2003; Sivasubramaniam et al., 2002). For example, Day, Gronn, and Salas (2004) theorize that collective or shared leadership in teams is a function of group dynamics and interactional processes, as opposed to the characteristics of individual team members. Providing empirical support for this idea, Carson et al. (2007) investigated the antecedents to shared leadership in 59 MBA-student consulting teams. The consulting teams were comprised of five to seven team members and worked with their corporate clients for five months. The results of the study emphasized three distinct antecedents to shared leadership in teams. Specifically, teams with a shared purpose, social support, and opportunities for participation and voice from all group members were much more likely to develop shared leadership structures than teams without these characteristics. These data suggest that the development of collective leadership structures is not simply a function of the aggregation of individuals' leadership attributes, but rather is a function of the social interactions among group members.

These studies of relational and collective leadership development mark an important change of direction in the study of leadership development—from a focus on individuals independent of any social context to the study of a contextualized and emergent leadership development process. Drawing from this perspective, new and interesting research questions emerge about the development of leadership in organizations. For example, research is needed to explain how the pattern of interactions among group members—for example, in terms of communication, conflict, or trust—influences the structural pattern of leadership that develops in the group. For questions about how group dynamics influence the emergence and development of relational or collective leadership, we expect applying models of group development (Kozlowski et al., 1996) to understand the evolution of leadership roles and networks of relationships will be especially constructive. This research will also need to parse out the influence of formal hierarchical structures from the informal relationships and patterns of interaction that emerge in the leadership

development process. Furthermore, it is not yet clear what underlying mechanisms explain how different patterns of leadership relationships and structures emerge. On the one hand, leadership theories are often grounded in the concept of social exchange (e.g., Kellerl & Dansereaul, 1995), suggesting that leader-follower relationships develop as group members exchange resources (e.g., control, liking) for compliance or following direction. On the other hand, identity-based theories of leadership development (Day, Harrison, & Halpin, 2009; DeRue, 2011; DeRue & Ashford, 2010a) suggest that leadership relationships and structures develop as individuals, through interaction, socially negotiate meaning and reciprocal identities as leaders and followers. Research that empirically tests and documents these divergent explanatory mechanisms would significantly advance our field's understanding of how relational and collective forms of leadership develop in groups and organizations.

Architecture: Developing a Social and Organizational Context That Enables Leadership Development

We define architecture as the organizational practices, structures, and cultural factors that influence the leadership development process. Examples include practices such as feedback or reflection interventions that are designed to enhance employee learning from experience (Daudelin, 1996; Densten & Gray, 2001), structures such as on-boarding or job rotation policies that are intended to accelerate employee learning and development (Campion, Cheraskin, & Stevens, 1996; Conger & Fishel, 2007), and cultural factors such as an organizational climate for learning (Lim & Morris, 2006; Rouiller & Goldstein, 1993). In practice, it is often posited that these architectural features enhance employees' motivation for engaging in leadership development activities, their access to developmental opportunities, and their ability to learn from experience. Yet, though organizations increasingly invest in these architectures to support and enhance leadership development (Hernez-Broome & Hughes, 2004), the conceptual and empirical basis for these investments has historically been dubious. Recent studies, however, offer important insights about how these architectures can promote leadership development within organizations.

For example, the positive effect of coaching and mentoring on employee career development is well established (e.g., Kram, 1983; Levinson, Darrow, Klein, Levinson, & McKee, 1978 Ragins & Cotton,

1999; Seibert, 1999), but scholars are only beginning to examine the value of coaching and mentoring in leadership development (Hall, Otazo, & Hollenbeck, 1999; Ting & Hart, 2004). In their quasi-experimental study of 1361 senior managers in a global financial services company, Smither and colleagues (2003) provided all managers multisource feedback related to their performance. However, a subset of managers also worked with a coach to interpret the feedback results, link the feedback to the business plan, create a self-development plan, and use the feedback to solicit input from employees on how to improve their leadership performance. Managers who worked with a coach were more likely to set goals for their development, solicit ideas for improvement, and improve their performance based on ratings from their direct reports and supervisors.

Unfortunately, studies that examine coaching and/or mentoring in the context of management or leadership development are rare. In fact, in their meta-analysis of the management development literature, Collins and Holton (2004) could not identify enough studies on the role of mentoring or coaching to include these practices in their analysis. Relative to the frequency with which coaching and mentoring are used in practice for leadership development, there is a significant need for more theory development and empirical research on how personal, situational, and organizational factors explain how coaching and mentoring influence the leadership development process. For example, it is possible that coaching or mentoring can enable individuals or groups to more effectively learn from their experiences, but it is also possible that these practices can create a sense of dependency that detracts from employees engaging in self-development activities (Bushardt, Fretwell, & Holdnak, 1991; Kram, 1983; North, Johnson, Knotts, & Whelan, 2006). The current literature has only begun to unpack the mechanisms through which coaching and mentoring influence leadership development, and future research is needed to inform how individuals and organizations can fully realize the value of practices such as mentoring and coaching.

Beyond coaching and mentoring, there is also an emerging literature on the role of reflection in employee learning and development, and scholars are beginning to extend this feature of the organizational architecture to the context of leadership development. In field experiments with members of the Israel Defense Forces and in laboratory experiments with undergraduate students, Ellis and

colleagues (Ellis & Davidi, 2005; Ellis, Ganzach, Castle, & Sekely, 2010; Ellis, Mendel, & Nir, 2006) have documented how structured reflection practices can enhance individuals' mental models of their experiences, promote more internal attributions for performance, and produce greater performance improvements than if employees are to process and reflect on their experiences without any formal structure or guidance. Likewise, Anseel and colleagues (2009) showed in both field and laboratory settings that reflection combined with feedback results in greater performance improvements than feedback alone. DeRue and colleagues (DeRue, Nahrgang, Hollenbeck, & Workman, 2012) have extended these findings to a leadership development context, where they show in a nine-month field experiment that structured reflection enhances leadership development for people who are conscientious, open to experience, emotionally stable, and have a rich base of prior developmental experiences.

Finally, after decades of research on how organizational climate and culture can influence learning at the individual, group, and organizational levels of analysis (Argyris, 1993; Edmondson, 1999; Hofmann & Stetzer, 1996; Rouiller & Goldstein, 1993; Weick, 1993), scholars are beginning to explore how organizational climate and culture influence leadership development. For example, international assignments are often used for leadership development purposes (Kohonen, 2005; Pucik & Saba, 1998), and in a study of 58 expatriates from 4 multinational firms, Lazarova and Caligiuri (2001) found that a climate of organizational support increases expatriate commitment to the organization and reduces turnover intentions. Similarly, in the context of a large, U.S.-based hospital, Tansky and Cohen (2001) found that a climate of organizational support enhanced the degree to which employees were satisfied with their opportunities for personal growth and career development. Altogether, these results suggest that building a culture that supports learning and development not only enhances employee learning, but also the likelihood that organizations' best leadership talent will be retained and continue to invest in the organization.

Reinforcement: Creating Positive Feedback Loops in Leadership Development

Leadership development is a dynamic and cyclical process of human growth and development (McCauley, Moxley, & Van Velsor, 1998; Van

Velsor, Moxley, & Bunker, 2004). At individual, relational and group levels of analysis, the capacity for leadership develops in different ways, at different times, and at different rates—ultimately forming positive or negative feedback loops that, over time, emerge as different trajectories of development (Day et al., 2009; Day & Lance, 2004; Halpern, 2004). Historically, scholarly research has offered limited insight into these longitudinal patterns and trajectories of leadership development, but a recent special issue in *Leadership Quarterly* focused entirely on the topic (Riggio & Mumford, 2011). For example, in this issue, Day and Sin (2011) demonstrated in a sample of 1315 students from the Pacific Rim that an individual's leader identity predicts the rate of change in leadership effectiveness over time. Likewise, several articles in this issue establish empirically how aspects of individuals' childhood and adolescent experiences predict and explain their motivation to lead and leadership potential in adulthood (Gottfried et al., 2011; Oliver et al., 2011). Our hope is that studies such as these into the rate of growth and patterns of development are only the beginning of a shift in the field toward more longitudinal investigations of leadership development.

To help motivate research on reinforcement and feedback loops in the trajectories of leadership development, we highlight two issues that, based on recent theory in developmental psychology (Adolph, Robinson, Young, & Gill-Alvarez, 2008), should be important in explaining whether positive or negative developmental trajectories emerge in leadership development. The first issue is related to how developmental experiences are sequenced over time, while the second issue is concerned with the pace and timing of specific developmental experiences.

Theories of human development emphasize that the sequencing or temporal order of lived experiences is an important factor in explaining how much learning occurs from experience, what people learn, and whether those lessons are internalized or quickly forgotten (Riegel, 1976). Likewise, experiential learning theories describe a learning process where lessons are learned within experiences, but then those lessons are refined and internalized through experimentation, repetition, and reinforcement across experiences (Kolb, 1984). Drawing from these theoretical perspectives, we contend that the sequencing of developmental experiences will be an important consideration in leadership development.

Developmental experiences that reinforce and extend the lessons learned from prior experiences are

the building blocks to a positive leadership development trajectory (DeRue & Workman, 2011). When learning is reinforced across developmental experiences, people are able to refine and internalize the lessons of experience in ways that are not possible within a single experience. Moreover, developmental experiences that are disconnected or do not reinforce the lessons of past experience can interrupt the development process, and it is possible that individuals could even regress and retreat back to old, ineffective habits and behaviors. Consistent with this perspective, research in cognitive psychology has empirically documented how reinforcing experiences enable individuals to recognize patterns across experiences, and as a result, more effectively recall the lessons of experience (Bechtel & Abrahamsen, 1991; Reed, 1972). Similarly, research on expertise suggests that people become experts in a particular domain through repetition over long periods of time and across many reinforcing developmental experiences (Ericsson & Charness, 1994; Ericsson & Lehmann, 1996). Unfortunately, the leadership development literature has yet to develop a theoretical or empirical basis for understanding how the sequence of experiences impacts leadership development. Most research on experience-based leadership development examines the developmental value of a single experience or job (e.g., DeRue & Wellman, 2009; Dragoni et al., 2009), and thus the optimal sequence of experiences remains a mystery. Whereas Ericsson's research (Ericsson & Charness, 1994; Ericsson & Lehmann, 1996) on expertise suggests sequencing experiences so that individuals are able to practice a particular skill repeatedly until it is perfected, leadership requires a complex constellation of skills, and the skills required for effective performance will ebb and flow with variability in situations (e.g., Mumford et al., 2000; Mumford et al., 2007). Indeed, some scholars have expressed concerns about too much repetition and suggested that employees should be rotated regularly to avoid the narrowing of their leadership skills (Hall, 2002). Thus, it is not clear that the principles of repetition and deliberate practice will generalize to leadership development where the skills requirements are more fluid, and future research that clarifies how developmental experiences should be sequenced will be particularly valuable.

In addition to the sequencing of developmental experiences, the timing of particular experiences will also be important for understanding the emergence of positive feedback loops and developmental trajectories. While sequencing refers to the

order of potential developmental experience, issues of timing revolve around the pacing of developmental experiences, as well as the identification of particular moments in an individual's career that are more or less suited for development. In addition to an appropriate sequence of developmental challenges, individuals need sufficient time in each experience in order to maximize the learning and development that can be gleaned from the challenge (Gabarro, 1987; McCall et al., 1988). For example, Eisenhardt and Martin (2000) asserted that experience that comes too fast can overwhelm the individual, creating a barrier to their ability to capture their experience and shape it into meaningful learning. However, on the other end of the spectrum, Argote (1999) argued that infrequent experience can lead individuals to forget what was learned in the prior experience, hindering the ability to accumulate knowledge. These two perspectives suggest that organizations must seek to find an optimal balance, providing developmentally challenging experiences often enough to accumulate learning and knowledge, but not so often as to run into the problem of diminishing returns from an overwhelming amount of experience (e.g., DeRue & Wellman, 2009).

In addition to these questions of pace, research has explored the specific moments in an individual's career progression where developmental experiences are most suitable. Through interviews with representatives from 13 different organizations, Karaevli and Hall (2006) posit that variety of developmental experiences is particularly beneficial early in an individual's career. Specifically, they contend that developmental challenges at this early stage enable managers to establish their competence and an identity as a professional (Hall, 1976; Levinson et al., 1978). Likewise, research suggests that developmental challenge and variety in experience early in an individual's career enhances adaptability and openness to change, and enables individuals to develop more effectively later in their careers (Bunker & Webb, 1992; McCall, 1998). These insights highlight the long-term benefits that early-career challenges can have for leadership development.

Engagement: Learning to Learn Leadership

In his seminal article on organizational learning, de Geus (1988, p. 71) claimed that the "...only enduring source of competitive advantage is an organization's relative ability to learn faster than its competition." The same may very well be true for leadership development. Given the importance of

learning from experience in leadership development (McCall, 2004; McCall et al., 1988; McCauley et al., 1994; Ohlott, 2004), both human resource professionals and scholars are turning their attention toward understanding what enables individuals and collectives to effectively learn from developmental experiences. In the current literature, concepts such as the ability to learn (Ohlott, 2004), learning agility (Lombardo & Eichinger, 2000), and mindful engagement (DeRue & Ashford, 2010b) all speak to the attributes, practices and strategies that enable individuals to effectively learn from their experiences. The common theme across these concepts is an assumption that learning from experience is, in part, a function of how individuals and collective engage in the experience.

For example, Lombardo and Eichinger (2000, p. 323) define learning agility as “the willingness and ability to learn from experience, and subsequently apply that learning to perform successfully under new or first-time conditions.” The concept of learning agility is derived from insights about how individuals learn from and draw patterns across developmental experiences (McCall et al., 1988), as well as the literature on learning orientation (Dweck, 1986) and adaptive performance (Pulakos, Arad, Donovan, & Plamondon, 2000). Although conceptual development and empirical research on learning agility are in their infancy, some interesting insights are emerging from the current research (De Meuse, Dai, & Hallenbeck, 2010). In a series of studies using the CHOICES measure of learning agility, findings suggest that learning agility is empirically distinct from related concepts such as cognitive ability, goal orientation, and openness to experience, and that learning agility is associated with higher promotability and performance (Connolly & Viswesvaran, 2002; Eichinger & Lombardo, 2004). Building on these findings, our hope is that scholars will heed recent calls for further theory development and research on learning agility (DeRue, Ashford, & Myers, 2012), with the goal of understanding how the learning agility concept contributes to the field’s understanding of how people learn leadership via experience.

In addition, scholars are beginning to identify the behavioral practices and strategies that people can employ as they engage in key developmental experiences. For example, in interviews with 100 senior pastors, McKenna, Boyd and Yost (2007) found that pastors engaged in a series of personal strategies that helped them navigate through and learn from their experiences. These strategies

included adopting a learning orientation, relying on personal character and values, establishing and managing relationships, relying on their faith and calling, and using their expertise and knowledge. Similarly, DeRue and Ashford (2010b) outlined a set of practices that individuals can engage in to enhance the developmental value of experience, including approaching experiences with a learning orientation and specific goals for their development, engaging in active experimentation and feedback seeking during the experience, and systematically and critically reflecting on the successes and failures of any given experience.

These few studies on the ability to learn from experience are only the beginning. Indeed, much more research is needed on the antecedents to understanding the ability to learn from experience for both individuals and collectives. For example, there may be a range of cognitive abilities (e.g., practical intelligence, wisdom; Sternberg, 2007), or different sources of motivation for learning (e.g., extrinsic vs. intrinsic, self vs. other; DeRue & Myers, 2011), that explain why some people are more effective at learning from experience than others. In addition, research is needed to further develop, both conceptually and empirically, the behavioral practices and strategies that enable individuals and collectives to learn from experience. Thus far, the current literature has largely overlooked how the social context shapes the behaviors and practices that enable individuals and collectives to learn from experience, and research that develops a more contextually embedded model of ability to learn would be particularly helpful for advancing theories of experience-based leadership development. Indeed, this research could ultimately shift organizations’ leadership selection, staffing and succession planning processes away from a singular focus on who has performed well in prior leadership roles, and expand these processes to consider who is better equipped to learn from future experiences that might require fundamentally different modes of leadership. As John Ryan (2009, p. 7), the president and CEO of The Center for Creative Leadership, stated: “To succeed in a world where our work is always changing, where challenges are unpredictable and competition abounds, we need to be agile learners.”

Concluding Remarks: Key Insights and Next Steps

The scientific study of leadership enjoys a rich tradition of theoretical development and empirical research (Avolio, Walumbwa, & Weber, 2009;

Bass & Bass, 2008), but most of this research has emphasized the effects of leadership rather than the development of leadership. However, in the past two decades, scholars have developed a wealth of ideas and theories about how leadership capacity develops in organizational settings. In addition, working across a variety of organizational and cultural contexts, scholars have employed a diverse set of research methods to empirically examine the antecedents and processes associated with leadership development. Based on this research, a range of key insights have emerged. For instance, leadership development occurs primarily through action-based learning and experience, but not all experiences are equally developmental; and challenging assignments can be formal or informal, direct or indirect, and vary greatly in terms of their content. In addition, it is clear that leadership development is not simply about developing leadership knowledge and skills, but also about developing people's motivation to lead, their affect toward the rewards and risks associated with leadership, their identity as leaders, as well as their cognitive schemas about what it means to participate in a leadership process. Indeed, leadership development has become a topic of interest for scholars across a range of disciplines, and the diversity of theories and research emerging on leadership development is stimulating new and exciting ideas on the topic.

At the same time, however, a number of important knowledge gaps remain in the field's understanding of leadership development. Indeed, based on the present literature review, there are aspects of the PREPARE framework that lack the necessary theoretical or empirical grounding, and thus represent opportunities for future research. Herein, we review several of these knowledge gaps and explain how they provide a foundation for new and interesting research on leadership development.

An Agenda for Future Research

- **Considering Multiple *Points of Intervention*: Integrating Leader and Leadership Development**

Most research has focused on individual leaders as the point of intervention for leadership development, but based on the current literature, the process by which organizations develop leadership relationships and collective leadership structures remains an open question. Leader and leadership development have historically been treated as distinct concepts, but as Day (2000, p. 605) noted,

the “preferred approach is to link leader development with leadership development such that the development of leadership transcends but does not replace the development of individual leaders.” Instead of treating these concepts as independent, future research should provide a more integrative account of how leader and leadership development can be complementary in building the capacity for more effective leadership processes. In particular, an important research question is how organizations can develop effective leader-follower relationships and collective leadership structures, while also cultivating individuals who effectively participate in these leadership processes. The two concepts are interdependent and likely complementary.

- **Aligning Strategy and *Purpose*: Syncing Leadership Development Efforts with Strategic Goals**

Despite a wealth of theory and empirical research on the value of strategic alignment in HRM practices (Delery & Doty, 1996; Wright & McMahan, 1992), there is very little research on how leadership development can be effectively aligned with the strategic priorities of organizations, or what the value of that strategic alignment might be for organizations. For instance, research is needed to determine the appropriate balance between developmental experiences that align directly with an organization's goals or strategy and developmental experiences that are *not* aligned with strategy, but which may bring new insights and broaden an individual's perspective on leadership. Understanding the various mechanisms by which leadership development efforts can be shaped to both support and broaden organizational strategies will contribute significantly to the field's understanding of the organizational-level impact of leadership development.

- **Unpacking Developmental *Engagement*: Understanding what Motivates and Triggers Leaders to Develop From Experiences**

Though research has begun to explore some of the antecedents to learning from experience, this research has largely focused on individuals' cognitive abilities and behavioral approaches to learning, with much less attention paid to individuals' motivations for learning or the process by which these individuals come to recognize an experience as an opportunity for development. Indeed, individuals may be equally able to learn from experience, but may differ substantially in why they would be motivated to develop (i.e., they may have different

motives for learning; DeRue & Myers, 2011), and this difference in the source of their motivation may lead to differing levels of engagement in a developmental experience. Likewise, certain events or situations may serve as “developmental triggers” (Avolio, 2004), focusing an individual’s attention on the need for development. The current literature offers little insight into why some people can see an experience as an opportunity for learning (and thus a trigger for development), whereas other people may see that same experience as a problem or risk that needs to be solved or minimized. Future research that explores the consequences of individuals’ motives for leadership development, and the anatomy of events that trigger a focus on learning, would be particularly helpful in advancing the field’s understanding of leadership development in organizational contexts.

- Promoting *Reinforcement*: Considering Leadership Development as a Sequence of Developmental Experiences

In spite of considerable recognition that leadership development is a temporal and cyclical process, there is a dearth of research on how developmental experiences should be arranged over time, how these experiences can reinforce each other, how different trajectories of development emerge and evolve, or how the timing and pace of experiences affect development. Conceptualizing leaders’ development in terms of the trajectory of development over time (e.g., steep, flat, linear, exponential) opens up a new set of questions about the nature of time and cumulative experience in the developmental process, which are only beginning to be explored in empirical research, and require researchers to develop new theories that specify the duration of change, the predictors of change, the form or pattern of change, and the level of change expected (Ployhart & Vandenberg, 2010). Drawing from exemplars such as Day and Sin’s (2011) study of developmental trajectories, future research needs to unpack the temporal cycles and processes involved in leadership development.

To address these questions, scholars will need to employ a diverse range of research methods and approaches. At its core, leadership development is about change (in knowledge, skills, motivation, identity, process, structure, etc.); thus studying a leadership development process requires modeling change processes over time, whether it be at the individual, relational, or group level of analysis. Accordingly, scholars will need to carefully craft

research designs, determining the number of measurement occasions and observations necessary for testing the proposed theory of development (i.e., change). In addition, these future research designs will need to either use experimental methods with a control group, or introduce the appropriate time lags between intervals to address issues of causality. Indeed, as our theories of leadership development advance and become more refined, our methods for studying leadership development will also need to advance and become more sophisticated. Our hope is that by acknowledging these opportunities for future research, the current chapter not only provides a substantive review of the current literature, but also serves as a source of inspiration and guidance as scholars seek to build and test new theories of leadership development.

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