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Suggestions for New Research on Experience-Based Learning

SARAH A. HEZLETT
PDRI

McCall (2010) sends mixed messages about the status of research on experience-based learning. He conveys a quite positive view of what is known about learning from experience by contending that more research investigating what makes experiences developmental is not needed, characterizing a prior study as ''definitive,'' and making assertions such as ''more than enough is known to do a pretty good job of putting experience to work'' and ''we have the tools to support learning from experience.'' On the other hand, McCall concludes by outlining three areas where further research is ''crucial.'' In my view, McCall best captures where we are in understanding experience-based learning when he states ''The difficulty comes in determining whether or not a specific person will actually learn what the experience offers.'' Much has been learned about how leaders learn from their experience, but more knowledge is needed to confidently predict when and what a particular person will successfully learn from a specific experience. Without this knowledge, practitioners' ability to help organizations develop talent by methodically assigning experiences to leaders is limited.

In this commentary, I suggest areas where further research can close gaps in our understanding and give practitioners additional tools with which to effectively implement experience-based development. In some instances, these recommendations elaborate on research topics either explicitly recommended or alluded to by McCall. Drawing on theory and research on training, informal learning, and development, I offer a more systematic outline of needed research on experience-based learning.

First, we need to learn more about how supplemental activities, such as reflection and goal setting, facilitate or impair leaders, learning from their experiences. A variety of theoretical perspectives on individual development and informal learning suggest learning is enhanced when leaders perform activities such as setting goals and reflecting on their experiences (McCauley & Hezlett, 2001; Tannenbaum, Beard, McNall, & Salas, 2010). Indeed, McCall provides an illustrative example of the power of reflection to support his recommendation that we focus attention on leaders' learning from experiences, rather than just having experiences, as a strategy for putting experience at the center of development. His discussion suggests that the challenge is simply to get busy managers to slow down and pay more attention to what they are learning from what they are doing. However, McCall later acknowledges in his concluding thoughts on areas that require more research that ''it is not as clear what the obstacles are to learning from different kinds of experiences, or on the flip side, what might enhance it.''

Correspondence concerning this article should be addressed to Sarah A. Hezlett.
E-mail: sarah.hezlett@pdri.com
Address: PDRI, 650 Third Avenue South, Suite 1350, Minneapolis, MN 55402.

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The need for further research on the actions leaders can take to facilitate learning from their experiences is highlighted by prior research on related issues. For example, research on skill acquisition has demonstrated that diverting cognitive resources to self-regulatory activities can impede learning at times during the learning process, such as when task understanding is low (Kanfer & Ackerman, 1989). Feedback with certain characteristics (e.g., focusing attention on the self, threatening to self-esteem, discouraging or laudatory, and verbal) also can have detrimental effects on performance (Kluger & DeNisi, 1996). Knowing more about when to promote and how to structure reflection, as well as other supplemental activities designed to support learning from experience (e.g., setting learning goals, seeking or receiving feedback), will enable practitioners to help leaders learn effectively from their experiences without hindering their performance.

Second, we need to learn more about how contextual or situational factors enhance or impede experienced-based development. Like supplemental activities, contextual variables are included in many models of development, informal learning, and training. For example, supervisor support consistently has been linked to participation in developmental activities and the effectiveness of training (McCauley & Hezlett, 2001; Tannenbaum et al., 2010). However, the mechanisms through which support influences development have not been fully explored. It is not yet clear if those providing support enhance learning by sharing knowledge, bolstering leaders' self-efficacy, offering resources, or helping learners to engage in supplemental activities, such as reflection and goal setting. Initial findings from research on mentoring suggest it may be a combination of these processes (Hezlett, 2005; Lankau & Scandura, 2002). More research is needed to evaluate the generalizability of these findings beyond mentoring relationships and to refine our understanding of how leaders and those who support them can best work together to maximize leaders' learning from experience. In addition, the characteristics of individuals who excel at providing support should be investigated. Tannenbaum and his colleagues recently proposed that individuals who have been taught about informal learning will be more likely to engage in it and, in turn, will be more likely to provide support to others. These, along with other propositions about support for development, should be tested so that practitioners can better identify and prepare supervisors, peers, mentors, and internal coaches to support experience-based learning.

Third, further research on the role of individual differences in learning from experience should be conducted. In outlining the first of three areas where more research is needed, McCall states: ''A key issue in developing talent through experience is deciding who to give the experience to.'' Greater knowledge of how individual differences influence experience-based learning would help practitioners make these decisions. In training contexts, cognitive ability, prior job knowledge, internal locus of control, the Big Five personality traits, goal orientation, and self-efficacy are important determinants of key processes and outcomes, such as motivation to learn, knowledge or skill acquisition, and transfer of training (Colquitt, LePine, & Noe, 2000; Gully & Chen, 2009). They could potentially play important roles in informal learning from on-the-job experience. Comparatively little attention has been devoted to understanding interactions between individual differences and aspects of training systems, but research in this area has recently increased and yielded interesting results (Gully & Chen, 2009). Extending this research to scrutinize how individual differences interact with characteristics of experience would truly advance our understanding of which leaders will learn from what experiences. Although range restriction hindered thorough testing of their hypotheses, DeRue and Wellman's (2009) recent examination of learning orientation as a moderator of the relationship between

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the degree of developmental challenge of experiences and leadership skill development is a pioneering contribution in this direction. Identification of individual difference variables that predict success at learning from experience, as well as interactions between individual differences and characteristics of experiences, would enable practitioners to assign available developmental experiences to the leaders who will best learn from them.

Fourth, building a better understanding of leaders' ''readiness'' to learn from experience would help us understand when to assign a leader to a developmentally challenging experience. In other words, additional within-subjects research on experience-based learning is needed. The concept of ''readiness'' can be considered from diverse angles. For example, DeRue and Wellman (2009) observed a curvilinear relationship between the level of developmental challenge involved in experiences and leadership skill development, such that learning was maximized when leaders were moderately challenged. The developmental value of an experience, therefore, is a function of leaders' prior knowledge and the characteristics of the experience. From this perspective, leaders will be ''ready'' to learn from experience when their prior experience and the characteristics of the experience are suitably aligned. Further knowledge of the sequencing of the development of leadership capabilities would aid in making appropriate alignments. Alternatively, ''readiness'' could be scrutinized from a motivational perspective by investigating when effort and persistence at learning from experiences is likely to be highest. In describing his seventh sure bet about experience (''learning takes place over time and is dynamic, with all manner of twists and turns''), McCall provides a compelling example of a leader who is not ready to learn. He does not identify studying ''readiness'' as a research priority, but it should be. Armed with an understanding of ''readiness,'' practitioners would be able to optimize the timing of experiences so that leaders have experiences when they are most capable of learning from them.

Finally, it would be valuable to know more about what specific lessons are learned from different kinds of on-the-job experiences. As McCall notes, groundbreaking research has identified both the kinds of experiences leaders learn from and the lessons that leaders gain from experiences. Pioneering empirical work (McCauley, Ruderman, Ohlott, & Morrow, 1994) also has reported relationships between the two at a fairly high level. These findings, as well as the wisdom embedded in handbooks offering leadership development suggestions, provide a foundation for practitioners trying to match leaders who would benefit from learning particular lessons to specific experiential opportunities. However, unlike McCall, who argues that ''enough is known about experiences and what and why they teach,'' I think we need to know more details about what lessons can be learned from which experiences. More fine-grained information would make it possible for practitioners to better predict what lessons leaders would most likely gain from certain experiences, improving the matching of leaders to experiences. Given the complexity of experiences, McCall is probably correct when he says ''people may learn different things from the same kind of experience.'' Nevertheless, leaders are more likely to gain the desired lessons from experiences if the relationships between experiences and lessons are identified at a more specific level than they have been previously.

Conducting the research suggested in this article will require scientists to begin using new approaches to study experience-based learning. To date, research on learning from experience has relied primarily on leaders' retrospective reports of their developmental experiences. This approach has meaningfully advanced our knowledge of experience-based learning but needs to be complemented with other assessment methods and research designs. To build a science of experiential learning, we need to identify the antecedents and outcomes of learning

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from experience. Although not every useful study will provide a definitive causal test of posited relationships, we must accumulate evidence that shows what factors directly and indirectly influence learning from experience, substantiates moderators, and demonstrates the consequences of experienced-based learning. Research methods used to study training, multisource feedback (MSF), mentoring, and expertise are a reasonable, if imperfect, source of ideas.

For example, to examine the influence of supplemental activities, such as reflection, on learning from experiences, researchers could conduct pre- and postcontrol-group studies (ideally with random assignment) where the control and treatment groups differed in terms of how reflection was encouraged or structured. That is, reflection would be the treatment; the experience (e.g., expatriate assignment, transition to a managerial role) would be held constant. This approach would require careful definition and measurement of learning outcomes. Assessment options include using ratings of leaders' performance (e.g., MSF), tests or work samples of knowledge and skill, or subjective and/or objective measures of career success.

Alternatively, reflection, as well as other supplemental activities, could be studied with ''diary'' approaches in which leaders are systematically and frequently contacted and asked to respond to brief surveys that sample their performance of supplemental activities as they perform in assignments that are developmental. The roles played by support and individual differences in experience-based learning could be examined using correlational or quasi-experimental, longitudinal designs similar to those that have been used to study career success and mentoring.

Finally, McCall points out parallels between leadership development and the acquisition of expertise in other fields. Methods utilized in studying the expertise of nurses, pilots, and other professionals (e.g., cognitive task analysis) could be applied to improve our understanding of what makes an individual an expert leader. This understanding could be used to develop measures of leadership expertise and study the sequencing of the development of leadership capabilities. Using diverse approaches to study experience-based learning will enable us to continue to advance our understanding of this critical means of leadership development.

As McCall cogently argues, experienced-based learning is crucial for leadership development. Expanding of our knowledge using diverse and more rigorous methods would increase our ability to predict when and what a particular person will successfully learn from a specific experience, diminishing a key obstacle to implementing effective experienced-based leadership development systems.

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