Prioritizing the Learning Agility Research Agenda

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DeRue, Ashford, and Myers (2012) take on the valuable task of scrutinizing the definition and measurement of learning agility. As a relatively recent construct that has been receiving popular attention in the leadership development arena, the evaluation of this construct is timely from both a scientific and practical perspective. Additional research is needed to avoid a potentially useful concept from becoming a fad that ultimately fades from use. DeRue et al. close their article with suggestions for a research agenda. In this article, we discuss in more detail what learning agility research is needed to improve understanding of learning agility and hopefully improve its utility as a practical tool. We believe the research that is most pressing focuses on three broad questions: (a) What does learning agility predict? (b) How is learning agility similar to and distinct from other constructs? and (c) What influences the development of learning agility?

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Considering the Criteria: What Does Learning Agility Predict?

One research priority is to evaluate the relationship between learning agility and three criteria: leaders' career success, adaptive performance, and learning. In the growing literature, the predictive power of learning agility is consistently tied to the theory that the ability to learn from experience is key to leaders' career success. Learning agility allows people to adapt to changing circumstances and move ahead as leaders; an inability to change during transitions is

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a major cause of career derailment. Yet, only a handful of studies have empirically investigated the relationship between learning agility and leadership potential. These findings generally have been positive but have often relied on ratings of potential from supervisors (Bedford, 2011; Lombardo & Eichinger, 2000) or a company selection of high-potential employees (Dries, Vantilborgh, & Pepermans, 2012; Spreitzer, McCall, & Mahoney, 1997). Further research is needed to know whether learning agility predicts actual success in future roles. We are aware of only one longitudinal study examining the relationship between learning agility and subsequent post-promotion success, which concluded that individuals with higher learning agility received higher performance ratings in their new roles (Eichinger & Lombardo, 2004). Although it has been argued that learning agility should be at most modestly related to actual promotions (Eichinger & Lombardo, 2004), over the long haul, learning agility should predict leaders' career success. *A positive relationship between learning agility and subsequent career success, incrementing beyond current performance levels, is the practical acid test of learning agility*.

Learning agility also should predict adaptive job performance (Pulakos, Arad, Donovan, & Plamondon, 2000; Pulakos et al., 2002). Adaptive job performance consists of work-related adaptive behaviors that contribute to the goals of the organization.

Not all adaptive performance dimensions will be important for all leadership roles. However, most adaptive performance dimensions (e.g., dealing with uncertain or unpredictable work situations; learning new tasks, technologies, and procedures; and demonstrating interpersonal adaptability) appear to characterize the types of behaviors leaders need to execute to successfully handle unfamiliar, complex, and changing tasks. Consequently, learning agility should predict adaptive performance. Supporting this prediction, a measure of past experience with learning new tasks, technologies, and procedures was found to add incrementally beyond achievement motivation and cognitive ability to the prediction of an adaptive performance composite (Pulakos et al., 2002). Additional research is needed to directly test the relationship of leaders' learning agility with dimensions of adaptive performance. Failure to predict adaptive performance would call into question the basic assumption that learning agility helps leaders' handle unfamiliar, complex, and stressful work situations.

Despite its name, learning agility has yet to be strongly connected to learning. Initial evidence that learning agility is related to learning from experience comes from two empirical studies. Spreitzer et al. (1997) observed that supervisors' ratings of leaders' learning were associated with supervisors' ratings of some (but not all) dimensions that reflect ability to learn from experience. In a more recent study, Trathen (2007) reported small to large correlations between learning agility scores and gain scores on 11 leadership competencies over an 18-month period for a modest sample of senior executives. *Clear evidence that subsequent career success is due to an association between learning agility and the process of learning from experience is the construct validity acid test*.

Additional research is needed to systematically examine how learning agility promotes learning from experience. A potentially relevant source of ideas is the literature on how deliberate practice influences the development of expertise in domains such as sports, chess, and music (Ericsson, 2006). Deliberate practice involves regular, repetitive, individualized learning activities in which individual skills are refined, often through setting specific goals for improving on narrow tasks and monitoring performance to achieve them. Historically, deliberate practice has not included on-the-job performance (Fadde & Klein, 2010). However, a few studies have applied the concept of deliberate practice to the workplace. Deliberate, on-the-job practice of activities that support task performance (e.g., exploring new strategies,

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mental simulation, and asking for feedback) with the goal of improving competence was found to contribute incrementally to the performance of insurance agents (Sonnentag & Kleine, 2000) and business owners' acquisition of entrepreneurial knowledge and business growth (Unger, Keith, Hilling, Gielnik, & Frese, 2009). Perhaps leaders who are adept at learning from experience engage in more on-the-job deliberate practice. As with elite athletes and musicians, deliberate practice may prevent leaders' performance from hitting a plateau as their skills develop (Ericsson, 2006). Learning agility may help leaders' counteract automaticity, enabling them to retain control of their performance and achieve expertise. As noted by DeRue et al., the learning curves of those higher in learning agility may differ from others. The deliberate practice literature provides specific insights into how.

To study how learning agility promotes learning from experience, we must consider what learning outcomes are affected by learning agility. Research on learning from experience has suggested that each developmental experience has the potential to teach multiple lessons (McCall & Hollenbeck, 2002; Ohlott, 2004). What lessons does learning agility help leaders learn? One interesting starting point for generating hypotheses is Kraiger, Ford, and Salas' (1993) taxonomy of learning outcomes. On the basis of the descriptions of those who are proficient at learning from experience, we anticipate that learning agility predicts gains in procedural knowledge, the acquisition of cognitive strategies, and attitudinal changes.

The Construct Validity of Learning Agility

We believe it will be essential to clarify the definition of the construct that will feed into the validation work we suggested earlier. Our starting point is the observation that the definition of learning agility proposed by DeRue et al. is substantially different from the original conceptualization of the construct. This has the potential to create a jingle fallacy where the same term is used to refer to different psychological phenomena. DeRue et al.'s proposed definition also overlaps significantly with existing, well-known, and heavily researched cognitive ability concepts. This runs the risk of generating a jangle fallacy where it is mistakenly believed that substantially similar concepts that have different names are actually different. Neither a jingle nor a jangle would serve the practice of leadership development well. To move the dialogue about what learning agility is forward, we recommend studies focused on three issues: broad versus narrow definitions, cognitive abilities, and noncognitive attributes.

Broad Versus Narrow Definitions

Lombardo and Eichinger's (2000) original definition of learning agility is broad, comprising four dimensions. In contrast, DeRue et al. argue for narrowing the definition of learning agility, recommending that it be viewed as only one component of the capacity to learn from experience. We agree that speed and flexibility of processing are most likely only one component of learning from experience. However, to support this claim, more research is needed.

First, the domain of learning from experience needs to be fully defined. What are the other constructs comprising learning from experience? Then, measures of each construct must be developed and confirmatory factor analysis applied to scores on the measures to evaluate the dimensionality of the construct space of learning from experience. In addition, the measures of each construct must be correlated with other assessments to assess the distinctiveness of each learning from experience variable. It is insufficient to claim that speed and flexibility of learning are distinct aspects of learning from experience. Research is needed to demonstrate how they fit into the construct space.

It is common practice in applied research to try to reduce complex phenomena down to more simple or elemental components. In some cases, considering more narrow

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aspects of constructs has been a successful means of better understanding organizational phenomena. For example, examining the relationships between personality and job performance at the facet level, rather than the level of the Big Five, has revealed important relationships, expanding our knowledge and improving practice. We anticipate that examining the speed and flexibility of learning from experience will yield interesting insights. However, a better course may be to embrace the more complex phenomenon in its entirety.

The classic paper ''More is Different'' by Anderson (1972) captures the essence of our argument that reductionism is not always the best approach. The overall ability to learn from experience (i.e., learning agility) may emerge from a large set of unrelated traits and their interactions. Variations in learning from experience may emerge from the interplay among an individual's cognitive attributes, attitudes, interests, and prior knowledge bouncing off the work setting and coworkers. We propose that simplifying learning agility is premature, and it should be studied in its broader, more complex form. We are not arguing for imprecise definitions or permission to invoke complexity as an excuse when predictors fail to work. However, we believe additional data are needed to determine whether the concept of learning agility should be narrowed. Furthermore, we recommend that learning agility be retained to refer to the broad domain of learning from experience. This use of the term is already known. Starting to use learning agility to refer to a narrow part of the construct space will generate confusion.

Cognitive Abilities

Cognitive abilities are clearly included in both Lombardo and Eichinger's and DeRue et al.'s conceptualizations of learning agility. Given the role played by cognitive abilities in learning, this seems appropriate. The literature is quite clear that cognitive ability predicts learning in both formal and informal settings (Gottfredson, 1997), the rate of learning over both shorter (e.g., Snow, Kyllonen, & Marshalek, 1984) and longer periods (e.g., Martin, 1985), and training transfer (Colquitt, LePine, & Noe, 2000). Cognitive ability is correlated with evaluations of career potential and creativity (Kuncel, Hezlett, & Ones, 2004) as well as the performance of leaders (Judge, Colbert, & Ilies, 2004). Not inviting cognitive ability to the party would be a mistake, and we wonder how much of speed and flexibility of learning is simply general mental ability.

However, additional research is needed to establish how learning agility as normally defined is similar to and distinct from previously identified and studied cognitive concepts. Two studies have reported near zero correlations between learning agility and measures of cognitive ability (Bedford, 2011; Connolly, 2001). It is possible that meaningful relationships were not observed due to the specification of the measures (either of learning agility or of cognitive abilities), range restriction on cognitive ability in the samples studied, or both. These possibilities need to be assessed and addressed in future studies.

Noncognitive Attributes

In our view, DeRue et al.'s focus on the speed and flexibility of learning largely strips out the most interesting and incremental contribution of learning agility: the noncognitive elements. Who chooses to pause and learn from a failure? Who is open to learning from a mistake or feedback? Who refuses to see that the game has changed? Why do some people willfully decide not to adapt even as their career, team, division, or organization burns around them?

A person must perceive the need or opportunity to learn and then make the volitional choices necessary to do so. Neuropsychological research has examined how after a failure people differ in their reactions (Moser, Schroder, Heeter, Moran, & Lee, 2011). Those with a growth mindset appear to focus and reflect on the failure to

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a greater extent. This attention appears to result in superior subsequent performance. Similarly, a proactive personality has been linked to both career success (Fuller & Marler, 2009) and development activity (Major, Turner, & Fletcher, 2006). Learning agility is surely a mixture of cognitive and noncognitive elements.

Development of Learning Agility

Little is currently known about the antecedents of learning agility. To what extent is it heritable? How does it develop? One possibility is that it develops through the accumulation of experience handling unfamiliar situations and tasks. Consistent with this idea, Dries et al. (2012) found that leaders with more varied careers—both in terms of number of organizations worked for and number of functional areas they had experience in—were higher in learning agility. Perhaps the mindset, knowledge, and skill needed to be an agile learner develop through the accumulation of experience working in unfamiliar institutions and functional areas. However, as the authors note, the cross-sectional nature of this design leaves open the possibility that it is possible that people higher in learning agility are more likely to pursue more varied careers. Furthermore, it is critical that research seeks to distinguish learning agility from past work experience and past performance. In other words, it is important to show that learning agility is more than just a proxy for a leaders' career history. The original measure of learning agility was born from multirater performance evaluations, creating the possibility that learning agility is simply a function of prior performance. One way to differentiate learning agility from past experience or performance is to test its incremental validity over experience or past performance in predicting learning or future career success.

Also fruitful would be research investigating the extent to which learning agility can be taught. Behaviors such as feedback seeking, seeking opportunities to learn, and experimentation (DeRue et al.; Spreitzer et al., 1997) have been conceptualized as indicators of or manifestations of learning agility. More broadly, the literature on training, informal learning, coaching, multirater feedback, and leadership development suggests that setting developmental goals, seeking support, and reflection can enhance the development of leadership capabilities. Consistent with this, the deliberate practice literature has identified performance-supporting behaviors that can be intentionally completed on the job to improve performance. Can training focused on teaching developmental behaviors or deliberate practice increase leaders' learning agility? Research on this question has the potential to enhance our understanding of learning agility and our ability to help organizations develop leaders.

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