Personality Plays a Role in Defining Learning Agility

David. E. Smith, W. Warner Burke & Robert T. Hogan

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Poster

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Personality Plays a Major Role in Defining Learning Agility

SHORTENED TITLE

Personality's Role in Defining Learning Agility

ABSTRACT

DeRue et al. (2012) suggests that three antecedents contribute to learning agility: goal orientation, (meta) cognitive ability and openness to experience. The implication is they are all equal in importance. Openness to experience (measured by personality testing) was examined here. We looked at the relationship between learning agility (nine dimensions of the *Burke Learning Agility Inventory*) and personality (seven dimensions of the *Hogan Personality Inventory*). We expected to find a general relationship between learning agility and personality. Findings showed a substantial relationship between the two. Fifty-one out of 63 possible correlations ($p < .05$ and .01) were found. Most correlations were in the .30-.51 range. This suggests that personality plays a larger role in learning agility than we anticipated and perhaps more than goal orientation and (meta) cognitive ability. Ambition showed especially strong relationships with learning agility.

PRESS PARAGRAPH

Learning agility, the ability to learn from experience and adjust quickly to the fast pace of today's business world, has been identified as a key skill for leadership success. Research suggests that learning agility is impacted by three drivers (antecedents): goal orientation, cognitive ability, and openness to experience. It's assumed that all three of these are equal in importance to the development of learning agility. Openness to experience (measured by personality testing) was examined in this study. We looked closely at the relationship between learning agility and personality, expecting to find a general relationship between the two. Our findings suggest that personality plays a larger role in learning agility than we anticipated and perhaps more than goal orientation and cognitive ability. One aspect of personality, defined as ambition, showed especially strong relationships with learning agility. This suggests that the basic component of leadership (ambition) goes a long way in determining learning agility.

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VUCA (volatile, uncertain, complex, ambiguous) is the world we live in today, from world politics to daily business challenges. VUCA is an acronym that has become a popular "term" in many fields, including today's talent management arena. The challenges that today's worker, especially leaders, deal with in a VUCA world are many. Thomas L. Friedman, in his book, *Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations* (Friedman, 2016) provides a compelling case that Moore's Law (technology), the Market (globalization) and Mother Nature (climate change and biodiversity loss) are accelerating all at once. These accelerations are transforming five key realms: the workplace, politics, geopolitics, ethics and community.

In the workplace, employees need to be able to adapt to new situations and learn quickly to be successful (DeRue, Ashford, & Myers, 2012; Lombardo & Eichinger, 2000; Mitchinson, Gerard, Rolloff & Burke 2012, Burke, 2017a). Lombardo and Eichinger refer to this as "learning on the fly" or learning from experience. This is particularly true with leaders and new leaders.

In recent years the concept of learning agility has been gaining prominence in the practitioner world as a way to select and develop leaders and potential leaders to deal with changing situations (DeRue, Ashford, & Myers, 2012; DeMuese, Dali and Hallenback, 2010, Lombardo and Eichinger, 2000). Lombardo and Eichinger first defined learning agility as "the willingness and ability to learn from experience, and subsequently apply that learning to perform successfully in new or first-time conditions" (Lombardo and Eichinger, 2000, p. 322) Burke, in his research at Teachers College, Columbia University, further defines learning agility as "the engagement in learning behaviors to enhance the capacity to reconfigure activities quickly to meet the changing demands in the task environment" (Burke 2017a, P.12).

Learning agility is beginning to receive more attention in the literature. Papers by industrial-organizational psychologists and learning scholars have been published in peer reviewed journals such as *Consulting Psychology Journal* (DeMeuse, Guangrong & Hallenbeck, 2010.) and *Industrial and Organizational Psychology* (DeRue et al., 2012) and management practices publications, such as *McKinsey Quarterly*, (Chambers, Foulon, Handfield-Jones, Hankin, and Michaels, 1998), and *Talent Magazine Quarterly* (Burke, 2017b).

Learning Agility Measures

A number of attempts have been made at developing a measure of learning agility (Lombardo and Eichinger, 2000), or related concepts, e.g., Sprietzer's *Prospector Survey* (Sprietzer, McCall, &Mahoney, 1997) with varying degrees of scope and empirical rigor. As Burke (Burke, 2017a) points out, "While we acknowledge the important role this work has played in advancing our understanding of learning agility and its potential for measurement, we believe a number of common limitations leave room for further development."

In particular, the limitations Burke points out is the way each measure operationalizes learning agility. The *Prospector Survey* doesn't explicitly measure the concept of learning agility. It appears that it does not adequately represents all theoretical domains that are fundamental to the concept. On the other hand, Lomardo and Eichinger's work, that evolved into *Career Architects*, then to *viaEdge*, is positioned as a true measure of learning agility. The problem with this is that with 4 factors and 27 dimensions, the instrument seems to measure more than just the construct in question. This strongly suggests a need for a more focused and parsimonious instrument that can measure learning agility.

Burke set out to develop an instrument to measure learning agility using DeRue et al's (2012) conceptualization of learning agility. In their scholarly paper on learning agility, DeRue et

al. proposed that there are three individual differences related to the construct: goal orientation, (meta) cognitive abilities, and openness to experience. They suggest that learning agility is deeply rooted in openness or learning from experience. Openness to experience refers to people who are broad-minded curious, imaginative and original (Barrick & Mount, 1991; Costa & McRae, 1992), and are generally more receptive to change.

Burke's team of researchers developed a 38-item inventory (Mitchinson and Morris, 2012). The measure is based on nine dimensions of learning agility. After developing the *Burke Learning Agility Inventory* (Burke LAI), it's reliability was tested using a sample of mid-level managers. The nine Burke LAI dimensions had Cronbach's alphas ranging between 0.78 and 0.88, and a follow-up confirmatory factor analysis indicated a good structure and model fit (Burke, Roloff, Mitchinson, Catenacci, Drinka, & Kim, 2016).

Continued Research on Learning Agility

The three antecedents to learning agility; goal orientation, (meta) cognitive ability, and openness to experience, in DeRue et al's model of learning agility, suggests that the three are equal in importance. We chose to explore this by focusing on openness to experience, which can also be measured by established FFM personality tests, in particular, the *Hogan Personality Inventory*. We hypothesized that there would be low (r =.10) to moderate (r. = .20) correlations between the Burke LAI and a FFM personality test.

Hypothesis. We hypothesized that there would be low (r =.10) to moderate (r = .20) correlations between the Burke LAI and a FFM personality test, the *Hogan Personality Inventory.*

Method

Sample

A convenience sample of participants was recruited using Mturk. Three Hundred and thirty-six participants from this sample had taken the Hogan Personality Inventory (HPI) within the last six months and were asked to complete the Burke LAI.

The sample consisted of the following: 49.7% female, 47.6% male; 14% Asian, 11.3% Black, 8.3% Hispanic, 61% Caucasian. Two-point-one percent of the participants indicated two or more races and .6% indicated "other" for their race.

The median age was 35. Seventy-five percent of participants were employed full-time; 14.6% were employed part-time. Point-six percent were retired, 3.9% were self-employed, .6% were students, and 2.7% were unemployed. Fifteen participants were removed from the sample because they had not completed the HPI, resulting in a total number of 321 participants included in analyses.

Measures

Participation involved completing the Hogan Personality Inventory (HPI) and the Burke Learning Agility Inventory (Burke LAI). Pearson correlations were computed to examine the associations between the seven HPI dimensions and the nine Burke LAI dimensions.

Learning Agility. Learning agility was measured in this study by the Burke LAI**.** The nine dimensions measured by the Burke LAI include: Flexibility, Speed, Experimenting, Performance Risk-Taking, Interpersonal Risk-Taking, Collaborating, Information Gathering, Feedback Seeking, and Reflecting. Participants were asked to consider how often they engaged in the "following behaviors at work." Items were assessed on a seven-point scale (1 = not at all, 4 = occasionally, 7 = very frequently). A sample item is, "discuss my mistakes with others."

Personality. A well-known personality instrument was used to measure the personality of participants. The Hogan Personality Inventory (HPI), based on an abundant of research over the last 35 years (See Hogan & Hogan, 1991; Hogan, Hogan & Roberts, 1996; Hogan, Barrett & Hogan, 2007; Hogan & Holland, 2003; Hogan & Hogan 2007), used throughout the world, and based on the Five Factor Model, was employed. The seven dimensions measured by the HPI include: Adjustment, Ambition, Interpersonal Sensitivity, Sociability, Prudence, Inquisitive, and Learning Approach. Using a true/false scale, the participants were asked to consider if the inventory items applied to them. A sample item is, "In a group, I like to take charge."

Results

The correlation matrix shown in Table 1 reveals the relationships between the nine Burke LAI (learning agility) dimensions and the seven HPI (personality) dimensions. Most Burke LAI dimensions showed significant correlations with most HPI dimensions. Fifty-one out of a possible sixty-three correlations were significant ($p < .05$ to $p < .01$). Most correlations were at the $p<.01$ level. The significant correlations ranged from .12 to .51.

The highest correlation was found between *Speed* (Burke LAI) and *Ambition* (HPI) ($r=.51$, $p<.01$). In fact, <u>all</u> the Burke LAI dimensions correlated with *Ambition* ($r=.27$, $p<.01$ to $r=.51$ $p<.01$). Also, Table 2 shows that when the **Overall Score** of the Burke LAI (combining all test items in unit weighting) was compared to *Ambition*, the correlation was .45 ($p<.01$).

The next highest series of correlations of Burke LAI dimensions to HPI dimensions, in order of magnitude, include *Inquisitive* (HPI); correlations ranged from .22 ($p<.01$) to .38 ($p<.01$), *Sociability* (HPI); correlations ranged from .18 ($p<.01$) to .31 ($p<.01$), and *Interpersonal Sensitivity* (HPI); correlations ranged from .15 ($p<.01$) to .34 ($p<.01$). When comparing Overall Scores for the Burke LAI to other (in addition to Ambition) HPI dimensions, significant correlations were

found for *Inquisitive* .39, (p<.01), *Sociability* .34, (p<.01), *Interpersonal Sensitivity* .30, (p<.01), and *Learning Approach* .29, (p<.01).

The weakest relationships between Burke LAI Overall Scores and HPI dimensions were found with *Prudence* (HPI) (r=.09, non-significant) and *Adjustment* (HPI) (r=.14, p<.01). A similar pattern of low to non-significant correlations was found between Burke LAI dimensions and *Prudence* (HPI) (three of nine significant correlations with r=.12, p<.05 to r=.15, p<.01) and *Adjustment* (HPI) (four of nine significant correlations with r=.12, p<.05 to r=.24, p<.01).

In summary, most Burke LAI dimensions showed significant correlations with most HPI dimensions. There were very few weak or non-significant correlations found between the Burke Learning Agility Inventory and the HPI. This is contrary to our expectations, based on DeRue et al.'s model of learning agility that suggests the three antecedents of learning agility are equal in importance. In particular, we hypothesized that there would be low (r =.10) to moderate (r = .20) correlations between the Burke LAI and a FFM personality test, the *Hogan Personality Inventory.* Our hypothesis was not supported.

Secondary findings were not hypothesized but bring out a revealing relationship between personality (based on the FFM) and learning agility (measured by the Burke LAI). *Ambitio*n (HPI) correlated with <u>all</u> Burke LAI dimensions, with the highest correlations found in the study. This begins to isolate which of the FFM dimensions might have the largest effect on learning agility.

Discussion

Personality factors appear to play a stronger role as an antecedent to learning agility than anticipated. The magnitude of the relationships found between learning agility and personality, measured by the FFM, provides clarification for DeRue et al.'s model of learning agility. Where DeRue et al. lay out a model in which three antecedents (goal setting, (meta) cognitive ability, and

openness to experience) impact learning agility, they do not differentiate the importance of the three. Our findings suggest that openness to experience, best measured by a FFM personality instrument, plays a significant, and perhaps, the most important role in the construct. This helps us to understand how consideration of personality can assist in helping others to build their learning agility strengths. In particular, learning agility development is likely to benefit by combining a strong measures of learning agility and FFM personality instrument.

Finally, ambition leads the pack in influencing learning agility. This may not be surprising since HPI's ambition dimension is the most direct measure of leadership. For example, participants who score high in *Ambition* (HPI) are more likely to "take initiative and be energetic"; "accept difficult challenges"; and "enjoy taking charge and serving in decision making roles" (Hogan Assessment Systems, 2009). This should provide direction for those in the learning agility field.

Implications for Practice

The study of learning agility has come a long way in the last 30 years. An improved, well-researched, learning agility tool -- based on theoretical findings and being more parsimonious -- is available to move things along even further (i.e., *Burke Learning Agility Inventory*). Combining this with a strong FFM personality instrument (e.g., *Hogan Personality Inventory*) will go a long way in helping practitioners build talent management and talent acquisition programs that are "best in class." Paying particular attention to the level of ambition a potential participant possesses should be the first place to look in terms of building stronger learning agility.

Limitations and Future Research

This study proposed to look at the relative importance of DeRue et al.s' three antecedent components of learning agility. Our hypothesis was that only low to medium correlations would be found between personality and learning agility, suggesting that personality, or openness to

experience, is equally important in learning agility as is goal orientation and (meta) cognitive ability. We propose that our findings do not support this.

Only one of the three antecedents was tested in this study. Future studies should follow the design of this study but look at empirical measures of the other two antecedents.

Conclusion

In this study we took a closer look at DeRue and al.s' model of learning agility. The authors propose that there are three antecedents (goal orientation, (meta) cognitive ability, and openness to experience (personality) that impact the construct. The implication is that each antecedent is similar in magnitude of impact. We tested this by examining the relationship between the Burke LAI dimensions and Overall (test) Scores and Burke and Hogan (HPI) dimensions. We found higher than expected correlations between the sets of data suggesting that personality plays a larger role in creating learning agility than perhaps the other two antecedents.

Secondary findings were not hypothesized but bring out a revealing relationship between personality and learning agility. *Ambitio*n (HPI) correlated with <u>all</u> Burke LAI dimensions. This suggests that ambition may have the largest effect on learning agility.

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Table 1: Correlation Matrix for Burke Learning Agility Inventory Dimensions and Hogan Personality Inventory Dimensions

		Hogan Personality Inventory Dimensions						
	N = 321	Adjustment	Ambition	Sociability	Interpersonal Sensitivity	Prudence	Inquisitive	Learning Approach
Burke Learning Agility Inventory Dimensions	Flexibility	r = .10 .08	r = .36 .01**	r = .26 .01**	r = .22 .01**	r = .07 .21	r = .34 .01**	r = .29 .01**
	Speed	r = .24 .01**	r = .51 .01**	r = .30 .01**	r = .22 .01**	r = .08 .16	r = .36 .01**	r = .35 .01**
	Experiment	r = .09 .13	r = .38 .01**	r = .25 .01**	r = .15 .01**	r = -.06 .30	r = .38 .01**	r = .28 .01**
	Performance Risk Taking	r = .13 .05*	r = .39 .01**	r = .29 .01**	r = .23 .01**	r = .04 .53	r = .35 .01**	r = .30 .01**
	Interpersonal Risk Taking	r = .02 .74	r = .27 .01**	r = .24 .01**	r = .21 .01**	r = .01 .82	r = .24 .01**	r = .12 .05*
	Collaboration	r = .12 .05*	r = .27 .01**	r = .26 .01**	r = .34 .01**	r = .12 .05*	r = .24 .01**	r = .19 .01**
	Information Gathering	r = .10 .06	r = .39 .01**	r = .31 .01**	r = .22 .01**	r = .08 .15	r = .34 .01**	r = .25 .01**
	Feedback Seeking	r = .12 .05*	r = .32 .01**	r = .28 .01**	r = .33 .01**	r = .14 .01**	r = .22 .01**	r = .08 .13
	Reflecting	r = .06 .27	r = .29 .01**	r = .18 .01**	r = .24 .01**	r = .15 .01**	r = .26 .01**	r = .18 .01**

*p < .05

**p < .01

Table 2: Correlation Matrix for Burke Learning Agility Inventory Overall Score and Hogan Personality Inventory Dimensions

N = 321	**Hogan Personality Inventory Dimensions**						
	Adjustment	Ambition	Sociability	Interpersonal Sensitivity	Prudence	Inquisitive	Learning Approach
Burke Learning Agility Inventory Overall Score	r = .14 .01**	r = .45 .01**	r = .34 .01**	r = .30 .01**	r = .09 .10	r = .39 .01**	r = .29 .01**

*p < .05

**p < .01