

Goal Orientation and Work Role Performance: Predicting Adaptive and Proactive Work Role Performance Through Self-Leadership Strategies

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ABSTRACT. This article explores the relationship between goal orientation, self-leadership dimensions, and adaptive and proactive work role performances. The authors hypothesize that learning orientation, in contrast to performance orientation, positively predicts proactive and adaptive work role performances and that this relationship is mediated by self-leadership behavior-focused strategies. It is posited that self-leadership natural reward strategies and thought pattern strategies are expected to moderate this relationship. Workers ($N = 108$) from a software company participated in this study. As expected, learning orientation did predict adaptive and proactive work role performance. Moreover, in the relationship between learning orientation and proactive work role performance through self-leadership behavior-focused strategies, a moderated mediation effect was found for self-leadership natural reward and thought pattern strategies. In the end, the authors discuss the results and implications are discussed and future research directions are proposed.

Keywords: adaptive work role performance, goal orientation, proactive work role performance, self-leadership

NOWADAYS, ORGANIZATIONS STRIVE to both attract and develop talent to their work force (Pearce & Manz, 2005). As routines and market dynamics grow in complexity, companies need co-workers and team members that are adaptable and proactive and can, therefore, deal with complex situations (Anderson & Prussia, 1997; Baba, Tourigny, Wang, & Liu, 2009; Griffin, Neal, & Parker, 2007; Wood, Bandura, & Bailey, 1990).

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Griffin, Parker, and Mason (2010) and Griffin et al. (2007) have recently proposed a model of individual work role performance in uncertain and interdependent contexts (i.e., environments in which individuals faced the need to adjust behaviors, cognitions, and affects to situational constraints). According to the authors, work role performance is a multidimensional construct that includes change oriented behaviors to regard the task, the team, and the organization (Griffin et al., 2007; Griffin et al., 2010). Each of such behaviors is, in turn, included in three broader dimensions that together constitute work role performance: proficient work role performance (i.e., proficiency toward the task, the team, and the organization), adaptive work role performance (i.e., adaptability toward the task, the team, and the organization), and proactive work role performance (i.e., proactivity toward the task, the team, and the organization).

For the scope of this article, only proactive and adaptive work role performance will be considered.

The work of Griffin et al. (2007) on work role performance suggested that proactive behaviors leading to proactive work role performance can be thought of as self-initiated behaviors regarding the task (i.e., initiates better ways of getting the core tasks done), the team (i.e., develops new methods to help the team perform better), and the organization (i.e., makes suggestions to improve the overall efficiency of the organization) (Belschak & Den Hartog, 2010; Griffin et al., 2007). Adaptive behaviors leading to adaptive work role performance can be defined as an individual's capacity to cope effectively with changes occurring in the task (i.e., can adjust to new equipment, processes or procedures), in the team (i.e., can respond constructively to team changes such as the arrival of new members), and the organization (i.e., can cope with changes in the way the organization operates). According to Griffin et al. (2007) and Griffin et al. (2010), in order to meet such requirements individuals need first of all to possess an adequate mind set (i.e., beliefs; characteristics) (Belschak & Den Hartog, 2010; Kozlowski et al., 2001; Porath & Bateman, 2006).

Goal Orientation: A Brief Review

Goal orientation theory states that individuals hold personal beliefs about intelligence, thinking of it as being either incremental (e.g., learning orientation) or stable (e.g., performance orientation). Such beliefs create a mental framework from which individuals adopt either avoidance or mastery strategies toward performance and goal achievement (Button, Mathieu, & Zajac, 1996; Dweck & Legget, 1988; VandeWalle, 2001).

Specifically regarding learning orientation, authors such as Belschak and Den Hartog (2010) and Button et al. (1996) suggest that learning oriented individuals are intrinsically motivated to engage in highly challenging tasks from which they can learn and become more knowledgeable (Gerhardt & Luzadis, 2009; LePine, 2005). Authors also propose that learning oriented individuals are usually more

likely to invest more resources (i.e., cognitive, emotional, and behavioral) on task and problem solving, and that they also develop a more positive attitude toward change and novel situations (Chen & Mathieu, 2008; VandeWalle, 2001). One example can be seen in the findings of LePine (2005) where individual team member's characteristics such as learning orientation positively influenced team adaptation. Another example concerns the finding that sales people who are highly learning-oriented usually report higher sales performance levels through the use of self-regulation strategies activated by emotional arousal and negative feedback (VandeWalle, Brown, Cron, & Slocum, 1999). According to Griffin et al. (2007) and Griffin et al. (2010), proactive and adaptive performers are those whose mind set is highly oriented to perform in scenarios of uncertainty (Kozlowski et al., 2001; Porath & Bateman, 2006). Therefore we can expect that:

Hypothesis 1.1: Learning oriented beliefs positively predict proactive work role performance.

Hypothesis 1.2: Learning oriented beliefs positively predict adaptive work role performance.

Performance oriented individuals, in contrast to those who are learning oriented, frequently engage in low risk situations where the probability of failure is minimal or even nonexistent (Chen & Mathieu, 2008). Such individuals are usually unwilling to perform challenging tasks because they believe themselves to be more prone to errors and failure. This, in turn, induces perceptions of poor health status and acute stress (Button et al., 1996; LePine, 2005). Yet, when performing tasks that are perceived as being simpler, or where the individual actually believes there is little chance of failure, performance oriented individuals can achieve performance levels that are equal to or higher than those of learning oriented individuals (Button et al., 1996; VandeWalle, 2001; VandeWalle et al., 1999; LePine, 2005). Therefore, we can expect that

Hypothesis 1.3: Performance oriented beliefs negatively predict proactive work role performance.

Hypothesis 1.4: Performance oriented beliefs negatively predict adaptive work role performance.

Self-Leadership Capacity as the Driving Force of Work Role Performance

Following self-regulation theory (Bandura, 1991), self-leadership can be defined as an individual's capacity for performance enhancement, through the dynamic usage of management of a 3-factor self-regulatory mechanism comprising cognitive, motivational, and behavioral self-navigation strategies (Manz, 1986;

Pearce & Manz, 2005). These strategies are called behavior focused strategies, natural reward strategies, and thought pattern strategies (Curral & Marques-Quinteiro, 2009; Konradt, Andreßen, & Ellwart, 2009; Manz, 1986).

The behavior focused strategies dimension is the one closest to the concept of individual self-management (Manz, 1986). Such strategies are intended to regulate personal behavior so as to increase individual performance. To achieve this, behavior focused strategies comprise the following regulatory functions: self-observation, self-goal setting; self-reward administration; and self-cueing (Houghton & Neck, 2002; Neck & Manz, 2010; Neck & Houghton, 2006). Self-observation concerns personal behavior observation and personal reflection with regard to the effectiveness of an individual's performance in relation to the task, the team, and the organization. This in turn leads to the suppression of unfitted behaviors and the promotion of the most adaptive ones. Self-goal setting concerns the establishment of goals that are aimed at the fulfillment of personal interests (i.e., personal goals) and the accomplishment of goals that have been set by the team or the organization (i.e., performance goals). Self-reward strategies are a contingency reward system through which individuals give themselves specific rewards such as a new lap top, or dinner with friends once they have accomplished something that had previously been set. Last, self-cueing involves a set of personal strategies that individuals have developed for themselves to help them remember what they have yet to accomplish, and what rewards await them upon goal accomplishment. Self-cues may take the form of Post-Its and screen saver messages, for example (Neck & Houghton, 2006).

Natural reward strategies play an intrinsically motivational role as they mainly focus on seeking and promoting pleasant and enjoyable feelings in the work environment (i.e., task, team, organization, clients). These are aimed at energizing task oriented behaviors as a way to maximize performance. In order to do this, individuals can either use task positive modeling (i.e., transform all job related negative cues into positive ones in order to increase the enjoyableness of the situation), and/or suppress task negative issues (i.e., by consciously choosing either not to think about a negative aspect of the work environment or to focus solely on the positive aspects) (Houghton & Neck, 2002).

Last, thought pattern strategies represent a set of personal cognitive regulatory mechanisms aimed at the enhancement of the fit between thought and action, thus reducing negative thought and promoting positive and constructive thinking patterns. This cognitive regulatory function is achieved through the following regulatory mechanisms: evaluation of one's values and beliefs, self-talk and self-imagery (Houghton & Neck 2002; Neck & Houghton, 2006). Evaluating values and beliefs stands: a) for the individual's capacity to understand how the values and the beliefs that he or she holds fit task requirements or the situation at hand; and b) proactive willingness to change or reshape such beliefs in order to adapt as required to situations such as interpersonal conflict and poor

self-efficacy perceptions (Neck & Houghton, 2006). Self-talk is a strategy employed by the individual either mentally or out loud, which contributes toward increased self-awareness, and better problem solving and emotional control in challenging scenarios. Another important role is played by self-imagery. This is an individual's capacity to look ahead in order to cognitively simulate how tasks will be performed and create a mental image of the desired outcomes (Neck & Houghton, 2006).

To date, literature has shown that self-leadership is positively predicted by individual characteristics such as learning orientation (Curral & Marques-Quinteiro, 2009) and personality traits such as extraversion and consciousness (Houghton, Bonham, Neck, & Singh, 2004). Furthermore, literature has also shown that individual self-leadership positively predicts individual self-efficacy and task performance (Kontadt et al., 2009), individual creativity (Carmeli, Meitar, & Weisberg, 2006; DiLiello & Houghton, 2006) and individual work role innovation (Curral & Marques-Quinteiro, 2009).

Regarding individual creativity and work role innovation, for instance, literature has shown that both dimensions are strongly and positively predicted by learning orientation (Hirst, van Knippenberg, & Zhou, 2009; West, 2001). Literature has also shown that although creativity is mainly a cognitive phenomenon, innovation requires that an individual has the drive to work through the innovative process in order to transform the creative idea into an effective and observable output (West, 2001). Nevertheless, we can expect this drive to be sensitive to both behavioral and cognitive states (Smith & Terry, 2003). Also, on this same topic it is important to consider the supposition put forward by Burke et al. (2006) and Pulakos et al. (2002) that innovation can be thought as an adaptive and a proactive response to change. When individuals engage in either proactive or adaptive action they must not only perform adjusted behaviors as they often need to self-motivate and restructure cognitions in order to develop positive mindsets that fit the new environment (Griffin et al., 2010; Griffin et al., 2007; LePine, 2005, 2003). Such individuals frequently imagine multiple scenarios and mentally rehearsal corresponding future performance and results. This helps individuals prepare themselves and the environment in which they are embedded to manage uncertain events (i.e., Griffin et al., 2010; Griffin et al., 2007; LePine, 2005, 2003).

Although general theory states that self-leadership is a three-dimensional model (Houghton & Neck, 2002; Pearce & Manz, 2005), several studies have tested the isolated effect of each of the three self-leadership components on performance outputs. Such studies have shown that: a) individuals who received specific training in self-leadership thought pattern strategies not only reported higher levels of performance, satisfaction, and self-efficacy than those who did not, but they also adapted better to organizational post-change events (i.e., downsizing) (Houghton & Jinkerson, 2007; Neck & Manz, 1992; Neck, 1996; Robert & Foti, 1998); and b) self-leadership behavior focused strategies predict job performance through job satisfaction (Politis, 2006).

As previously mentioned self-leadership follows self-management theory (Manz, 1986). This theory suggests that an individual's action is dependent on monitoring the environment, followed closely by situational assessment and deciding on the best course of action to take given the results they hope to achieve (Manz, 1986). In self-leadership literature the mechanism underlying self-managing activities is designated as behavior focused strategies (Marques-Quinteiro, Curral, & Passos, 2012). Self-management theory also states that such regulatory mechanisms can be enhanced through cognitive and motivational functions, thus suggesting an interaction between such functions and self-managerial activity. In the self-leadership literature these functions are the result of thought pattern strategies and natural reward strategies (Neck & Houghton, 2006). This may suggest that although self-leadership is a three factorial construct (Houghton & Neck, 2002; Marques-Quinteiro et al., 2012), the way each dimension of self-leadership strategy contributes to predict behavioral outcomes may be distinct.

Thus, connecting this rationale with what has been said so far regarding learning orientation, performance orientation, proactive work role performance, and adaptive work role performance we can consider that learning oriented beliefs can only positively influence both proactive work role performance and adaptive work role performance when individuals have the drive to engage in self-directed action (Griffin et al., 2007; Griffin et al., 2010). Therefore, we hypothesize that:

Hypothesis 2.1: Self-leadership behavior focused strategies will positively significantly predict proactive work role performance in such a way that they will mediate the relationship between learning orientation and proactive work role performance.

Hypothesis 2.2: Self-leadership behavior focused strategies will positively significantly predict adaptive work role performance in such a way that they will mediate the relationship between learning orientation and adaptive work role performance.

Curral and Marques-Quinteiro's (2009) findings on the relationship between self-leadership, performance orientation, and individual work role innovation suggest that performance orientation has no significant effect on both variables. Relying on these findings and on what has been presented so far about the relationship between innovation, proactivity, and adaptivity we hypothesize that:

Hypothesis 2.3: Self-leadership behavior focused strategies will positively significantly predict proactive work role performance in such a way that they will mediate the relationship between performance orientation and proactive work role performance.

Hypothesis 2.4: Self-leadership behavior focused strategies will positively significantly predict adaptive work role performance in such a way that they will

mediate the relationship between performance orientation and adaptive work role performance.

Still following the rationale that has been presented, the effect of self-directed actions (i.e., behavior focused strategies) on proactive work role performance and adaptive work role performance can be positively or negatively influenced by motivational and cognitive regulatory mechanisms (Curral & Marques-Quinteiro, 2009; Griffin et al., 2007; Griffin et al., 2010; Migliori & DeClouette, 2011). This is to say that the effect of behavior focused strategies on both proactive and adaptive work role performances may be conditioned by the strength of natural reward strategies and thought pattern strategies. Therefore we expect that:

Hypothesis 3.1: Self-leadership thought pattern strategies will moderate the effect of learning oriented beliefs on proactive work role performance through self-leadership behavior-focused strategies in such a way that this relationship will be positively stronger for higher levels of self-leadership thought pattern strategies.

Hypothesis 3.2: Self-leadership natural reward strategies will moderate the effect of learning oriented beliefs on proactive work role performance through self-leadership behavior focused-strategies in such a way that this relationship will be positively stronger for higher levels of self-leadership natural reward strategies.

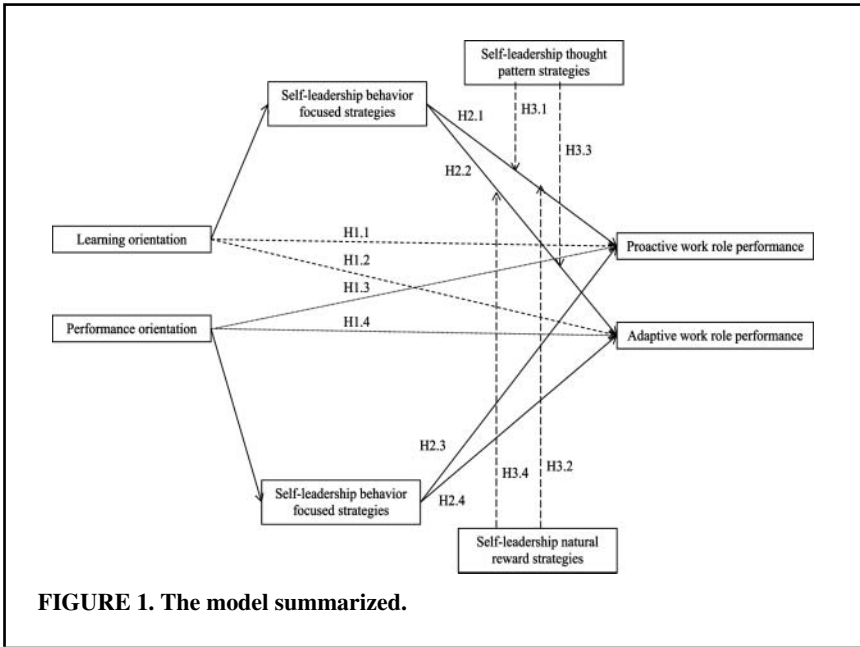
Hypothesis 3.3: Self-leadership thought pattern strategies will moderate the effect of learning oriented beliefs on adaptive work role performance through self-leadership behavior-focused strategies in such a way that this relationship will be positively stronger for higher levels of self-leadership thought pattern strategies.

Hypothesis 3.4: Self-leadership natural reward strategies will moderate the effect of learning oriented beliefs on adaptive work role performance through self-leadership behavior focused-strategies in such a way that this relationship will be positively stronger for higher levels of self-leadership natural reward strategies.

METHOD

Participants

Individuals ($N = 108$) from three international software companies participated in this study. One week before data collection, participants were informed of the study via an e-mail that was also a letter of invitation. Data collection was from April 2009 to May 2009 and respondents gave their answers to the questionnaires on paper. With regard to sample characterization, 53% of the respondents were men and the mean age was 38 years ($SD = 9.8$ years). At least one academic



degree was held by 93%, and, on average, participants had 8 years of professional experience ($SD = 6$ years).

Measures

Self-leadership was measured with a short version of the revised self-leadership questionnaire (Houghton & Neck, 2002) ($\alpha = .84$, $p < 0.05$, 24 items). From the 9 original factors that compose all three self-leadership main strategies, only 8 were considered in the analysis; self-punishment was excluded from the beginning at the suggestion of the authors of that scale. Furthermore, only the three items with the highest loadings from each of the 8 factors were kept. Reliability for the three main strategies was as follows: Behavior focused strategies ($\alpha = 0.803$, $p < 0.05$, 12 items) (i.e., “I work toward specific goals I have set for myself), natural reward strategies ($\alpha = 0.682$, $p < 0.05$, 3 items) (i.e., “I find my own favorite ways to get things done”), and thought pattern strategies ($\alpha = 0.772$, $p < 0.05$, 9 items) (i.e., “I think about and evaluate the beliefs and assumptions I hold”). Answers were given on a 5-point scale ranging from 1 = “totally disagree” to 5 = “totally agree.”

Goal orientation was accessed using the 16-item version of Goal Orientation Scale by Button et al. (1996) ($\alpha = .77$, $p < 0.05$). A sample item of the learning orientation scale ($\alpha = .81$, $p < 0.05$) was “I prefer to work on tasks that force me

to learn new things.” “A sample item of the performance orientation scale ($\alpha = .82, p < 0.05$) was “I prefer to do things that I can do well rather than things that I do poorly.” Answers were given on a 5-point scale ranging from 1 = “totally disagree” to 5 = “totally agree.”

Proactive work role performance was accessed using the Griffin et al.’s (2010) scale ($\alpha = .92, p < 0.05$, 9 items). The reliability for each AWRP dimension was as follows: individual task proactivity ($\alpha = .86, p < 0.05$, “Initiated better ways of doing your core tasks”), team member proactivity, ($\alpha = .92, p < 0.05$, “Suggested ways to make your work unit more effective”), and organization member proactivity ($\alpha = .92, p < 0.05$, “Involved yourself in changes that are helping to improve the overall effectiveness of the organization”).

Adaptive work role performance was accessed using the Griffin et al. (2010) scale ($\alpha = .88, p < 0.05$, 9 items). The reliability for each performance dimension was as follows: Individual task adaptivity ($\alpha = .81, p < 0.05$, “Adapted well to changes in core tasks”), team member adaptivity ($\alpha = .85, p < 0.05$, “Dealt effectively with changes affecting your work unit [e.g., new Members]”), and organization member adaptivity ($\alpha = .79, p < 0.05$, “Coped with changes in the way the organization operates”).

Statistical Procedures

Data analysis was done using SPSS 18 (34 bit version). To test simple mediation effects with bootstrap analysis, we installed and used Preacher and Hayes’ (2004) macro for testing simple indirect effects in SPSS 18. The bootstrap method is considered a more powerful approach than the three-step multiple regression approach (Baron & Kenny, 1986) and the Sobel test (Sobel, 1982) for estimating mediation and indirect effects, as it requires only that there exists an effect to be mediated (i.e., $c \neq 0$) and that the indirect effect be statistically significant in the direction predicted by the mediation hypothesis. To estimate the conditional indirect effects (i.e., moderated mediation) we downloaded Preacher, Rucker, and Hayes (2007) syntax file (modmed). Analyses were then carried out to assess the conditional indirect effect for the mediation model by considering solely the moderation occurring in the regression path from self-leadership behavior focused strategies to proactive work role performance (*b* path) (Preacher et al., 2007). Following Aiken and West (2001), the conditional indirect effect for both hypotheses 3.1 and 3.2 were analysed interpreting the results one standard deviation below and above the mean. Bootstrap analyses were also performed.

RESULTS

Table 1 shows descriptive statistics and inter-correlations for the hypothesized model. Learning orientation correlated significantly with behavior focused strategies (.33, $p < .01$), proactive work role performance (.26, $p < .01$) and adaptive

TABLE 1. Inter-Correlations and Descriptive Statistics

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Self-leadership BFS	3.468	.498	1	—	—	—	—	—	—
2. Self-leadership TPS	3.015	.717	.26**	1	—	—	—	—	—
3. Self-leadership NRS	3.852	.586	.32	.170	1	—	—	—	—
4. Learning orientation	4.517	.429	.33**	.130	.21*	1	—	—	—
5. Performance orientation	3.894	.748	.07	.120	-.02	.02	1	—	—
6. Proactive work role performance	3.433	.768	.35**	.060	.15	.26**	-.006	1	—
7. Adaptive work role performance	4.033	.521	.13	-.002	.33**	.33**	.070	.10	1

Note. * $p < .05$. ** $p < .01$.

work role performance (.33, $p < .01$). Behavior focused strategies also correlated significantly with thought pattern strategies (.26, $p < .01$), natural reward strategies (.32, $p < .01$), and proactive work role performance (.35, $p < .01$). Contrary to expectations self-leadership behavior focused strategies had no positive significant correlation with adaptive work role performance (.13, $p > .05$) thus rejecting hypothesis 2.2, 2.4, 3.3, and 3.4. Table 1 also shows that performance orientation has no significant correlation with other variables in the model, thus rejecting hypotheses 1.3 and 1.4.

Although the observed correlations were low, data was collected using single respondents. As this could cause common method biasing, we carried out a collinearity diagnostic that was done using VIF (values lower than 5 suggest no collinearity effect) and tolerance values (values above 0.1 suggest no collinearity effect) (Montgomery & Peck, 1981). As the VIF values of the predictors ranged between 1.269 and 1.141 (VIF < 10), and the tolerance values ranged between 0.788 and 0.924 (Tolerance > 0.1) we consider that there was no common method bias influencing the results (Montgomery & Peck, 1981).

Tables 2 and 3 give the results for the simple mediation effects, with Table 2 showing the results for the linear regression analysis and Table 3 showing the results of the bootstrap analysis. As expected, learning orientation positively predicted both proactive work role performance and adaptive work role performance, which supports hypotheses 1.1 and 1.2. However, the indirect effect through behavior focused strategies was only significant for the path from learning orientation to proactive work role performance ($B = 17$, $p < .05$), supporting hypothesis 2.1 and partially supporting hypothesis 2.3 (given the direct effect).

Lastly, Tables 4 and 5 show the results for the conditional indirect effects. Results suggest that the conditional indirect effect for natural reward strategies

TABLE 2. Direct and Total Effects for Learning Orientation (X), Self-Leadership Behavior Focused Strategies (M), Proactive Work Role Performance (Y₁) and Adaptive Work Role Performance (Y₂)

	β	SE	t	Sig(two)
1. Effect of learning orientation on proactive work role performance.	.46	.17	2.61	.0090
2. Effect of learning orientation on self-leadership behavior focused strategies.	.39	.11	3.62	.0004
3. Effect of self-leadership behavior focused strategies on proactive work role performance controlling for learning orientation.	.45	.15	3.06	.0030
4. Effect of learning orientation on proactive work role performance controlling self-leadership behavior focused strategies.	.28	.17	1.63	.1000
5. Effect of learning orientation on adaptive work role performance.	.40	.11	3.60	.0005

on the hypothesized model is significant for the average value of the moderator ($\beta = .17, p < .03$) and one standard deviation above ($\beta = .18, p < .05$). The results from the bootstrap analysis also suggested that a conditional indirect effect exists when the value of natural reward strategies is equal to 4 ($\beta = .17, p < .03$). The moderated mediation effect for self-leadership thought pattern strategies also proved to be significant for the average value of the moderator ($\beta = .19, p < .02$) and one standard deviation above ($\beta = .24, p < .02$). Bootstrap analysis also suggested that a conditional indirect effect exists when the value of thought pattern strategies is equal to 4 ($\beta = .26, p < .02$). Therefore, hypotheses 3.1 and 3.2 were supported.

TABLE 3. Indirect Effects on Learning Orientation (X), Self-Leadership Behavior Focused Strategies (M), and Proactive Work Role Performance (Y)

	Products of Coefficients				Percentile 95% CI	
	β	SE	Z	Sig(two)	Lower	Upper
Proactive work role performance	.18	.08	2.29	.02	.05	.35

Note. 5000 bootstrap samples with bias corrected and accelerated.

TABLE 4. Conditional Indirect Effects for Proactive Work Role Performance (Interaction With Natural Reward Strategies)

Conditional indirect effects					Bootstrap analysis						
β	<i>S.E</i>	<i>Z</i>	<i>p</i>		Value of the moderator	<i>Beta</i>	<i>SE</i>	<i>Z</i>	<i>p</i>	Lower	Upper
3.26	.15	.10	1.50	.13	4	.17	.08	2.19	.03	.04	.36
3.85	.16	.08	2.13	.03							
4.44	.17	.09	1.99	.04							

Note. 5000 bootstrap samples with bias corrected and accelerated.

TABLE 5. Conditional Indirect Effects for Proactive Work Role Performance (Interaction With Thought Pattern Strategies)

Conditional indirect effects					Bootstrap analysis						
β	<i>S.E</i>	<i>Z</i>	<i>p</i>		Value of the moderator	<i>Beta</i>	<i>SE</i>	<i>Z</i>	<i>p</i>	Lower	Upper
2.30	.13	.08	1.63	.10	4	.26	.12	2.28	.02	.10	.56
3.01	.19	.08	2.35	.02							
3.73	.24	.13	2.36	.02							

Note. 5000 bootstrap samples with bias corrected and accelerated.

GENERAL DISCUSSION

As we progress into the twenty-first century, the interaction between human performance and technological solutions is becoming more and more demanding. Individuals not only have to be adaptive to situations of change, but they must also be proactive with regard to their environment (i.e., innovators, entrepreneurs).

Summary Findings

This study has empirically addressed how goal orientation dimensions affect both adaptive and proactive work role performances through self-leadership behavior focused strategies. Our findings show that a) learning orientation positively predicts proactive work role performance and adaptive work role performance, and

that b) self-leadership behavior focused strategies fully mediate the relationship between learning orientation and work role performance. In addition, this study has also shown that self-leadership thought pattern strategies and natural reward strategies moderate the mediation effect that has been found for self-leadership behavior focused strategies on the relationship between learning orientation and proactive work role performance.

Contributions to Scholarship

Results for performance orientation suggest the predictor has no significant effect on any of the variables in the model. Although we might expect that no relationship between performance orientation and learning orientation (Button et al., 1996), goal orientation literature suggests that a significant negative effect to be expected (Chen & Mathieu, 2008). Nevertheless, these findings are in line with previous work by Curral and Marques-Quinteiro (2009).

Learning orientation has, in turn, proved to predict both proactive work role performance and adaptive work role performance. These results are supported in the literature (Chen & Mathieu, 2008; LePine, 2003). Furthermore, these findings not only support previous research on learning orientation, self-leadership, and work role innovation (Curral & Marques-Quinteiro, 2009), but they extend that research as they take into account the interactive dynamics that occur between self-leadership strategies in the prediction of performance. Indeed, behavior focused strategies have been shown to not only predict proactive work role performance, but to effectively mediated the indirect path from learning orientation to proactive work role performance. These findings are in line with research being done on proactive personality. One example is Gerhardt, Ashenbaum, and Newman's (2009) empirical work on the predictive behavior of proactive personality on job performance through self-management strategies. Also relevant is the work from Porat and Batman (2006) in which the authors found that self-regulated actions mediate the path between learning and proving oriented strategies and job performance in longitudinal settings. These findings come to support the idea that that self-managing behaviors (behavior focused strategies), rather than motivations (natural reward strategies) and cognitions (thought pattern strategies), may lead to proactive work role performance related outcomes such as innovation, job performance, and job satisfaction.

Another important finding concerns the interaction that has been found between behavior focused strategies, thought pattern strategies, and natural reward strategies. To date, research in individual self-leadership has focused either on the full three dimensional construct of self-leadership (Konradt et al., 2009) or it has addressed either thought pattern strategies (Houghton & Jinkerson, 2007; Neck & Manz, 1997) or behavior focused strategies (Elloy, 2008) and their predictive capacity regarding individual job performance and subjective well-being. Behavior focused strategies are very similar to basic self-regulatory (Bandura, 1997)

and self-managing behaviors (Manz, 1986), which are functional dimensions that are responsible for regulatory processes. Natural reward strategies and thought pattern strategies, in turn, represent the cognitive and motivational dimension of regulatory functions (Bandura, 1997; Neck & Houghton, 2006) which interactively influence the dynamics and strength of behavioral regulatory functions and their impact on performance outcomes (Houghton & Neck, 2002; Neck & Manz, 2010).

Regarding adaptive work role performance, the absence of any significant effect from behavior focused strategies on the outcome would suggest that self-leading behaviors are proactive in nature, which means that self-leading individuals find proactive ways to deal with change rather than just go along with it. Adaptive work role performance is here defined as an individual's capacity to cope with changes in the task, the team or the organization, without necessarily having to change at all. By contrast, proactivity requires that individuals consciously engage in motivated action toward responding to change or being themselves the agents of change.

Applied Implications

Griffin et al. (2007) and Griffin et al. (2010) have shown that proactive work role performance is closely connected to innovative behavior, organizational citizenship behavior and team member support. Such conclusions may suggest that organizations willing to foster behaviors like this on their workforce may benefit from considering self-leadership strategies and learning orientation on their human resource management practices.

Findings from this study suggest that organizations seeking adaptive and proactive workers may benefit from recruiting individuals with high levels of learning orientation. In fact, learning oriented individuals are usually more attracted to solving complex tasks in which they may have a sense of mastery toward the task at hand (Button et al., 1996). This means that such individuals are more likely to adapt to changing situations by coping with them and also by behaving proactively as a way of dealing with change (Button et al., 1996). Although goal orientation is a trait and therefore it is hardly trainable and not always available in a pool of candidates or organizational workers (VandeWalle, 2001), recent findings show that priming individuals with mastery beliefs (an equivalent form of learning oriented beliefs) leads to higher performance outcomes in students (Thompson & Musket, 2005). Such findings may suggest that organizations might benefit from priming their co-workers with the importance of acquiring learning oriented beliefs; particularly in tasks and situations where innovation is a desired outcome, as is the case of project management.

Self-leadership strategies, in turn, are competences and therefore more easily developed through training and experience (Manz, 1986). This is to say that organizations willing to foster proactive work role performance may benefit from

administering self-leadership training to their workforce. Self-leadership behavior focused-strategies have been shown to predict only proactive work role performance, fully mediating the effect of learning orientation on the outcome variable. Such findings suggest that although learning oriented individuals adapt to changing situations, they will only be able to behave proactively if they have the necessary self-leadership behavior focused strategies that enable them to transform proactive intent (i.e., a coworker thinking of a way to produce a machine component to minimize the company's production costs) into proactive behavior (i.e., the co-worker effectively applying the new strategy and reducing the production costs).

Lastly, in addition to considering self-leadership behavior focused-strategies, organizations may also benefit from considering the conditional indirect effects of self-leadership's thought pattern strategies and natural reward strategies. As the results point out, both strategies play an important part in the relationship between learning orientation, self-leadership behavior focused strategies and proactive work role performance. This is of utmost importance to organizations as it shows: a) that the positive effect of self-leadership behavior focused strategies on proactive work role performance can be maximized through self-leadership's cognitive strategies; and b) that there will only be a positive significant conditional indirect effect for higher values of self-leadership thought pattern strategies and self-leadership thought pattern strategies. Therefore, we recommend that when administering training in self-leadership, organizations should always consider all self-leadership strategies.

Limitations and Future Research Directions

This study has several limitations. The first limitation concerns the size of the research sample, which is considerably small ($N = 108$). A further limitation concerns the cross-sectional design of the study. Although: a) collinearity diagnosis supported the idea that the results found were not due to common method biasing; b) the results are in accordance with previous research; and c) several authors have not only found no significant differences between self and supervisor ratings of performance (Demerouti, Verbeke & Bakker, 2005), but also suggest that common-method biasing is not an omnipresent phenomenon whenever measures are obtained through single respondents (Brannick, Chan, Conway, Lance, & Spector, 2010), the study would have benefited from having multi-source data. This could have provided cross comparisons between groups of respondents (Meade, Watson, & Kroustalis, 2007; Meade & Kroustalis, 2006) (i.e., co-workers; supervisors). This study could also have had a longitudinal or extended timely design better suited to addressing the dynamic relationship between self-leadership strategies and proactive work role performance (Mohammed, Hamilton & Lim, 2009; Passos & Caetano, 2005).

The absence of a relationship between performance orientation and any of the variables in the model also suggests that future research should address this

issue using other goal orientation measures such as VandeWalle et al.'s method (1999) in which, in addition to learning orientation, the authors also consider 2 sub-dimensions of performance orientation: avoidance- and prove-orientation. Furthermore, future research should also explore the dyadic relationship between adaptive and proactive performance in uncertain and interdependent contexts.

CONCLUDING REMARKS

Complexity in Organizational Dynamics Is Increasing

Proactive behaviors are a key component of effective behavior in dynamic environments where co-workers and organizations not only need to anticipate change, but must proactively respond to it in order to be effective. Indeed, individuals (i.e., co-workers, team members, managers, CEOs) are not only expected to be proactive and to anticipate change situations, but they are also expected to identify opportunities and make the most of them for the benefit of the collective (i.e., team, organization). Organizations may benefit from fostering self-leadership in their workforce, either by recruiting people with high self-leadership or by developing training programs. Through such practices, organizations can increase the ability of their workforce to perform proactively which may be a key component for organizational success in uncertain and interdependent contexts.

AUTHOR NOTES

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