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The Influence of Proactive Personality and Entrepreneurial Alertness on Boundaryless Mindset and Self-directed Protean Orientation among Highly Educated Workers

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Abstract:

Nowadays, professional advancement is no longer guaranteed by the organization and the employee has to count on his personal efforts and abilities to develop his career. Moreover, labor market realities put workers under various economic stressors such as underemployment and employment mismatch. Such situations result in weakened attitudes, beliefs and behaviors towards one's job (Feldman, 1996). This paper questions the interaction between psychological and cognitive resources resulting in helping employees manage their careers. Namely, we explored the potential effects of proactive personality and entrepreneurial alertness on boundaryless mindset and self-directed protean orientation. Our study involved 217 highly educated workers from Tunisia. Confirmatory factor analysis and structural equation modeling were performed. Results show that proactive personality influences entrepreneurial alertness and boundaryless mindset. Moreover, it has an indirect and positive effect on self-directed protean orientation. Finally, entrepreneurial alertness partially influences both boundaryless mindset and self-directed protean attitude. Findings are discussed in the light of the realities of the local labor market.

Keywords: *Proactive personality, boundaryless career, protean career, entrepreneurial alertness, highly educated workers*

1. Introduction

Nowadays, the psychological contract, which ties the employees to, the company has changed. Lifetime employment and organizational careers have given way to the promises of employability and flexicurity (Guerrero, 2004). In Tunisia and elsewhere, most organizations have trouble in employees' career management. Also, professional advancement is no longer guaranteed by the organization (Ben Hassen, 2011).

Moreover, the Tunisian labor market realities may put workers under various economic stressors. Specifically, highly educated Tunisians are facing unemployment, underemployment which consists of underutilized skills and capacities, and employment mismatch, i.e. they may be in a position that does not correspond to their educational or professional backgrounds (Schaefer, 2017; World Bank Group, 2014). Even though such positions provide some potential for long-term job security and financial stability, they result in weakened attitudes, beliefs and behaviors towards one's job (Feldman, 1996). Given that Tunisia has been facing economic crisis (Central Bank of Tunisia, 2019) and multilevel challenges, whether it be political transition after the Tunisian revolution of 2011, social demands, urgent structural decisions or qualifications upgrades, in order to respond to globalized demands, we wonder how high skilled workers can manage their careers on their own, knowing that career counseling in secondary schools and at the university level is very limited, and that students lack guidance on critical career decisions.

In this respect, several theoretical developments proved useful in coping with career requirements and leading to career success, such as proactive personality (Seibert, Crant & Kraimer, 1999) or boundaryless (DeFillippi and Arthur, 1994) and protean (Hall, 2002) career attitudes. Such variables lead to positive consequences such as subjective and objective career success (De Vos and Soens, 2008; Gubler, Arnold & Coombs 2014; Seibert et al., 1999) and organizational commitment (Briscoe and Finkelstein, 2009). Besides, these attitudes are subsumed to be especially useful under economic downturns (Briscoe, Henagan, Burton & Murphy, 2012; Klehe, Zikic, Van Vianen, Koen & Buyken, 2012). Furthermore, since Tunisia is suffering from a mismatch between the qualifications and labor market demands, the government has been trying for years to develop entrepreneurship among graduates by generalizing its education to all higher education universities and institutes, according (Organization for Economic Co-operation and Development, 2012; World Bank Group, 2017). Moreover, some attempts have been introduced as part of international cooperation to ease vocational reconversion (for example the Centre of Vocational Orientation and Reorientation) has been created in 2015

with the help of the German Corporation for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit: GIZ).

The current study aims at exploring whether the aforementioned constructs and findings are relevant to economically and culturally different context, namely Tunisia. We have chosen highly educated workers for two reasons. First, human capital investments made by these individuals are more likely to be better planned than those made by non-educated employees. Thus, their career aspirations are clearer. Not meeting these aspirations can turn out to be very uncomfortable and frustrating for the individual. Second, we contend that this "privileged" category is more capable and akin to take self-management as obvious.

To achieve the objective of the study, we organised the rest of the paper as follows. The first part provides a review of boundaryless career mindset and self-directed protean orientation. The second part presents the hypothesis development. The third part focuses on the methodology of sample selection and data collection, the fourth part presents the analysis of results and the fifth discusses findings, implications, limits and conclusion.

2. Dependent Variables: Boundaryless Career Mindset and Self-Directed Protean Orientation

The boundary-less career highlights the infinite possibilities that a career offers and the way the recognition of such opportunities leads to success (Arthur, Inkson & Pringle 1999; DeFillippi and Arthur, 1996). It involves multiple levels of analysis including mobility, flexibility and the opportunity structure (Briscoe, Hall & De Muth 2006). This kind of career can manifest either psychologically or physically (Sullivan and Arthur, 2006). Arthur and Rousseau (1996) attribute six different meanings to boundaryless career, including the establishment of extra-organizational professional networks or the balance between professional and extraprofessional lives.

In this work, we were interested in the psychological boundaryless career, in other words, boundaryless career mindset since the Tunisian labor market is not fluid. In fact, cross-organizational moves are not frequent (physical boundaryless career) whereas cross-organizational networking is (psychological boundaryless career).

Another concept of interest is protean career. According to Hall (2002), a protean career is a career driven by the individual. It is based on the goals set by this individual, integrating all his or her life space. It is guided by subjective rather than objective success. Therefore, the protean career is one that emphasizes self-directed approach to the career as well as self-directed vocational behavior (Briscoe and Hall, 2002). Briscoe and Hall (2006) define a self-directed individual in personal career-management as an individual having the ability to be « transformative » and adaptive in terms of performance and learning demands. It is noteworthy to mention that protean career orientation is not the same as being self-centered (Granrose and Baccili, 2006; Hall, 1999), rather it consists of scanning the environment in order to find opportunities in accordance with one's own values and preferences. Some reported correlates of protean career orientation include innovation and openness to change (Gasteiger, 2007, cited in Gubler et al., 2014). It also has been found to be positively related to managing insecure job settings successfully (Briscoe & al., 2012). Recently, authors presented the "protean paradox" which has been defined as a process by which greater levels of individual self-direction and values orientation serve the individual's interests, as well as those of the organizations in which they work (Hall, Yip & Doiron, 2018). In Tunisia, vocational exploration and retraining is becoming encouraged as it leads to adapt competencies to labor market demands, even though it is still unfamiliar to most young graduates. So, we contend that the personal orientation to self-directed protean career is of high importance for Tunisian workers who seek career success.

Boundaryless career mindset and self-directed protean orientation were found to be correlated with external support seeking and active coping which, in turn, were correlated with performance, career success and psychological well-being under economic recession (Briscoe et al., 2012).

3. Hypotheses on the Antecedents of Boundaryless Career Mindset and Self-Directed Protean Orientation

3.1. Proactive Personality

The proactive personality defines a tendency to have the will to act on one's environment (Bateman and Crant, 1993). Proactive people do not let themselves be restricted by situational forces, they « scan for opportunities, show initiative, take action » (Bateman and Crant, 1993, p. 105). Studies have established links between proactive personality and several career constructs. Briscoe et al. (2006) and Uy, Chan, sam, Ho & Chernyshenko (2015) found a positive link between proactive personality and boundaryless and protean attitudes.

This leads us to formulate our first set of hypotheses.

- H1 Proactive personality positively influences boundaryless mindset.
- H2 Proactive personality positively influences self-directed protean orientation.

3.2. Entrepreneurial Alertness

Entrepreneurial alertness (Kirzner, 1973; Tang, Kacmar & Busenitz 2012) is a process and perspective that helps some individuals to be more aware of changes, shifts, opportunities and overlooked possibilities. Although it has been first developed for venturing, researchers (Arthur and Rousseau, 1996; Bridgstock, 2007; Chan et al., 2015; Korotov, Khapova & Arthur, 2011; Sullivan and Baruch, 2009) asserted that future research could examine its relevance in shaping contemporary career mindsets. In fact, entrepreneurial alertness may be considered as a cognitive resource that helps individuals to notice career, professional or economic shifts and challenges, and triggers their nontraditional career attitudes. Researchers state that proactive personality is one of the major factors that determine entrepreneurial alertness (Tang et al., 2012). Thus, our third hypothesis is:

- H3 Proactive personality positively influences entrepreneurial alertness.

Tang & al. (2012) conceptualize entrepreneurial alertness as a multidimensional construct. Each of its three dimensions measures unique aspects of alertness. They contend that collapsing these dimensions into one scale is inappropriate. The first dimension is "alert scan and search". It provides a sensory store and knowledge base that facilitate adapting to new situations (Weick, 1996). It can be either passive or active. When active and focused on the very requirements of a career, it consists of exploring one's own knowledge, skills and abilities and wielding information seeking strategies. The second dimension is called "alert association and connection". It focuses on receiving new information, being creative and making extensions. Finally, the "evaluation and judgment" component extends the boundaries of alertness to weighing profit potentials.

Although many researchers have alluded to the relevance of alertness to career research (Arthur & Rousseau, 1996; Bridgstock, 2007; Chan et al., 2015; Korotov et al., 2011; Sullivan & Baruch, 2009) to our knowledge, no empirical investigation, except the study by Uy et al. (2015) has dealt with this concept. These researchers found that entrepreneurial alertness partially mediates the relationship between proactive personality and boundaryless career mindset but has no effect on the link between proactive personality and self-directed protean orientation. Therefore, our objective was to find the link between alertness components and career attitudes (boundaryless mindset and self-directed protean attitude). We present the following hypotheses:

- H4a Entrepreneurial alertness has a positive effect on boundaryless career mindset.
- H4b Entrepreneurial alertness mediates the relationship between proactive personality and boundaryless mindset.

Nevertheless, Uy et al. (2015) did not test the mediating effect of entrepreneurial alertness on self-directed protean orientation. Their choice is assigned to the fact that self-directed protean individuals develop internal standards while entrepreneurially alert individuals are concerned with external opportunities. We do not agree with this point of view. In fact, those with a self-directed protean attitude are not self-centered, reclusive and introvert, they are rather independent individuals who scan the environment in order to find what is in accordance with their own values and preferences and make free career choices (Granrose and Baccili, 2006; Hall, 1999, 2002). Moreover, according to Valliere (2013), entrepreneurial alertness has been formulated in the context of opportunities that are "discovered" exogenously; one might then think that it is merely a question of a perceptual quality. But nowadays, our understanding of opportunities is much wider and includes endogenously created ones. We therefore formulate our final hypotheses:

- H5a Entrepreneurial alertness has a positive effect on self-directed protean attitude.
- H5b Entrepreneurial alertness mediates the relationship between proactive personality and self-directed protean attitude.

4. Methodology

4.1. Sample and Procedures

Our sample consists of 217 Tunisian skilled workers operating in the public, private and liberal sectors. Ages range between 24 and 60. The professions represented in the study belong to various fields: health professionals, teachers, managers, engineers and accountants. The participants had received entrepreneurship courses during their university studies. 375 Surveys were electronically sent via professional networks. We reiterated our demand to respond twice. Finally, the response rate is 58 %. As stated earlier, we have chosen highly educated workers for two reasons. The first one lies in the human capital investments they made in order to get their position. These investments are more likely to be better planned than those made by non-educated employees. Their career aspirations are clearer and obey to high standards. If these aspirations are not met, it can turn out to be very frustrating for the individual. Thus, the career attitudes considered in this study as well as entrepreneurial alertness will enhance the individual's creativity and may be adaptability (Savickas, 1997) in managing his or her career. The second reason is that the career perspectives of this category are wide, both at the local and at the international level, provided that it demonstrates accurate career attitudes and behavior. Consequently, boundaryless career mindset and self-directed protean orientation as well as entrepreneurial alertness may prove very helpful in this respect.

4.2. Measures

Entrepreneurial alertness was measured using the 13-item Tang & al.'s "entrepreneurial alertness scale" (2012). Participants rated the extent to which each item described them, such as "I am always actively looking for new information" using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Boundaryless mindset was assessed using Briscoe & al.'s "Boundaryless Career Attitudes Scale" (2006). Participants had to rate on a 5-point scale ranging from 1 (to a little or no extent) to 5 (to a great extent) the extent to which each item described them, such as "I seek job assignments that allow me to learn something new".

Self-directed protean attitude was assessed using Briscoe & al.'s "Protean Career Attitudes scale" (2006). Participants had to rate on a 5-point scale ranging from 1 (to a little or no extent) to 5 (to a great extent) the extent to which each item described them, such as "when development opportunities have not been offered by my company, I've sought them out on my own".

The procedure of mean replacement (series mean) was used to deal with the very low proportion of missing data (less than 1%). As noted by Kline (2011), the selection of the missing data treatment procedure would be arbitrary when the proportion of missing data is very low.

5. Results

5.1. Measurement Model

Following the recommendations of Anderson and Gerbing (1988), we test the measurement model for each construct using confirmatory factor analysis (CFA) and we assess the goodness-of-fit for the measurement model (Chih, Huang & Yang 2016).

At a first stage, prior to conducting a CFA, several points were checked for the measurement model for each construct. Outliers identified by Mahalanobis (1936) Distance (D^2 p_value < 0.001) were removed (Hampton, 2015) and multivariate normality was tested using Mardia's (1970) coefficient of multivariate kurtosis (Gilson et al., 2013). A Mardia's value exceeding 3 indicate a multivariate non-normal distribution of the data (Romeu et Ozturk, 1993). To address non-normality, model fit was assessed using Bollen–Stine bootstrap approach (2000 samples) instead of the traditional chi-squared statistic (Austin, Hospital, Wagner & Morris, 2010; Bollen and Stine, 1993). A significant Bollen–Stine p-value is indicative of a poor model fit (Gilson et al., 2013). Modification indices were used to detect the sources of misfit. In accordance with Diamantopoulos and Siguaw (2006), we identify the highest modification index and we eliminate the item with the lower squared multiple correlation until Bollen-Stine p reached a non-significant value. Then, we removed items with factor loading under 0.7 by making sure that Bollen-Stine p value is still non-significant. At this stage, the number of items was reduced to three for proactive personality (Proa5_M; Proa6; Proa8_M), association and connection (Entr7; Entr8; Entr9) and boundaryless career mindset (Bound4; Bound5; Bound6), to one for scan and search (Entr5) and evaluation and judgement (Entr11) and to four for self-directed protean attitude (Prot3; Prot4; Prot5; Prot6). Note that we used the first order model of entrepreneurial alertness, as done by Machado, Da Silva Faia & Da Silva (2016), in the measurement and structural models. The results of CFA showed reliability (composite reliability between 0.694~0.904) of the latent variables and convergent validity (AVE between 0.521~ 0,742) of the measurement model for each construct (Fornell and Larcker, 1981). At a second stage, we measured the goodness-of-fit for the measurement model. After removing 8 outliers, the test of normality revealed a multivariate non-normal data. Mardia's index was 30,939 and the associated critical ratio was 9,903. Bollen–Stine p-value in addition to the other model fit indices, in other words, Bollen-Stine χ^2 , GFI, AGFI, TLI, CFI, SRMR, and RMSEA were used to evaluate the measurement model fit. Bollen-stine p value is significant (0.015) indicating a poor global fit. After re-specification of the measurement model based on modification indices, the number of items was reduced again to one for association and connection (Entr8) and boundaryless career mindset (Bound5) and to three for self-directed protean attitude (Prot4; Prot5; Prot6). Fit statistics suggested that the final measurement model had an excellent fit (Bollen-Stine χ^2 = 25.632, Bollen–Stine p= 0.209, df=24, GFI=0.971, AGFI=0.933, TLI=0.974, CFI=0.986, SRMR= 0.0356, and RMSEA=0.04). As shown in

, the model had a good convergent validity (AVE>0.5) and discriminant validity among constructs is verified (correlation between any two constructs is above the square root of AVE) (Fornell and Larcker, 1981).

	RJ	Evaluation And Judgment	Association And Connection	Scan And Search	Proactive Personality	Boundaryless Mindset	Self-Directed Protean Orientation
Evaluation and judgment	0,697	0,697					
association and connection	0,688	0,268	0,688				
scan and search	0,688	0,32	0,433	0,688			
proactive personality	0,767	0,403	0,311	0,362	0,524		
boundaryless mindset	0,689	-0,175	-0,009	0,208	0,229	0,689	
self-directed protean orientation	0,881	0,165	0,189	0,295	0,079	-0,084	0,713

*Table 1: Reliability, Convergent and Discriminant Validity of Constructs
AVE On Diagonal In Italics ; RJ : Rho De Joreskog*

5.2. Structural Model

The validity of the measurement model being checked, we processed the estimation of the structural model, using structural equation modelling (SEM) with maximum likelihood estimation. We seek to test the effects of proactive personality and entrepreneurial alertness on boundaryless mindset and self-directed protean orientation.

After removing 5 outliers, we estimate the proposed model. As the results revealed a multivariate non-normal distribution of the data (Mardia=15.816; CR=7,433), the Bollen and Stine bootstrap procedure (2000 samples) was adopted. All the indices suggested a good fit (Bollen-Stine χ^2 = 31.164, Bollen–Stine p= 0.166, df=28, GFI=0.971, AGFI=0.932, TLI=0.965, CFI=0.978, SRMR= 0.0485, and RMSEA=0.044).

As shown in

, the effects of proactive personality were significant and positive on entrepreneurial alertness and boundaryless mindset. This supports H1 and H3 of this study. However, proactive personality had no significant effect on self-directed protean orientation. H2 is rejected. Hypotheses testing the effects of entrepreneurial alertness on boundaryless mindset and self-directed protean orientation are partially supported. Only 'Evaluation and judgment' and 'Scan and search' had significant effects on boundaryless mindset and self-directed protean orientation respectively.

Hypotheses	Relationship		Path	P-value	Results	
H3.1	Proactive personality	→	Scan and search	0,47	0,005	Supported
H3.2	Proactive personality	→	Association and connection	0,382	0,009	Supported
H3.3	Proactive personality	→	Evaluation and judgment	0,755	***	Supported
H1	Proactive personality	→	Boundaryless mindset	0,44	0,038	Supported
H4a1	Scan and search	→	Boundaryless mindset	0,125	0,226	Not supported
H4a2	Association and connection	→	Boundaryless mindset	-0,143	0,222	Not supported
H4a3	Evaluation and judgment	→	Boundaryless mindset	-0,251	0,031	Supported
H5a1	Scan and search	→	Self-directed protean orientation	0,261	0,003	Supported
H5a2	Association and connection	→	Self-directed protean orientation	0,139	0,15	Not supported
H5a3	Evaluation and judgment	→	Self-directed protean orientation	0,109	0,249	Not supported
H2	Proactive personality	→	Self-directed protean orientation	-0,101	0,552	Not supported

Table 2: Results of Hypothesis Testing (Direct Effects)

Moreover, this study tested the mediation of entrepreneurial alertness on the effect of proactive personality on boundaryless mindset (H4b) and self-directed protean orientation (H5b). Indirect effect was tested using Bias-Corrected Bootstrap (95 Percent Confidence Intervals). It is significant when the confidence interval does not include zero (Parker, Nouri & Hayes, 2011). Consequently, H5b is supported and H4b is rejected. Entrepreneurial alertness mediates only the effect of proactive personality on self-directed protean orientation (Table 3).

Hypotheses	Causes	Effects	Standardized Indirect Effects	95% Confidence Interval Limits	
				Lower	Upper
H4b	Proactive personality	Boundaryless mindset	0,099	-0,284	0,024
H5b	Proactive personality	Self-directed protean orientation	0,01	0,045	0,336

Table 3: Indirect Effect Test with Bias-Corrected Bootstrap (95 Percent Confidence Intervals) (5,000 Bootstrap Samples)

6. Discussion

In this study, we notice that protean and boundaryless attitudes, as stated by Briscoe and Hall (2006) are different and are not shaped the same way. Namely, self-directed protean orientation is partially affected by entrepreneurial alertness whereas boundaryless mindset is positively influenced by proactive personality. Alternatively, is boundaryless mindset essentially personality-based and proactive in nature and self-directed protean orientation cognitively shaped? This would be encouraging and could constitute our first contribution. Firstly, the fact that self-directed protean attitude is partially influenced by a cognitive resource, namely entrepreneurial alertness and more specifically its scan and search dimension, means it can be taught and improved if we improve entrepreneurial alertness (Baron, 2004; Valliere, 2013). Secondly, it shows that entrepreneurial concepts may apply and enrich career studies and counseling. Even though many researchers called for integrating entrepreneurial concepts in career management studies, little attempts have been made.

These two elements lead to practical and research recommendations. Culturally, Tunisians would prefer long-term job security and financial stability, which provide social respectability, financial resources and professional prospects, critical to successful family formation and management (World Bank Group, 2014). It is true that the accumulated human and social capital in the career may imply serious losses and transition costs when re-orienting one's career path (Klehe et al., 2012) but, in some occasions, vocational reorientation and retraining is a viable way to employment and career success and Tunisian young graduates and job seekers should be sensitized to the benefits of vocational reorientation and retraining. This would contribute to enhance their self-directed protean orientation and boundaryless mindset of proactive personalities. Moreover, as Tunisian universities are currently teaching

entrepreneurial courses, teachers can develop students' schemes by exposing students to analogies, through case studies and local success stories, and to inductive reasoning, which would encourage them to acquire new schemes and to activate them in new situations. Thereby, they may become more entrepreneurially alert and in the same way more prone to protean and boundaryless attitudes. Entrepreneurial development and vocational exploration should also be integrated among high school curricular.

One additional contribution is the adaptation of four major scales in the fields of entrepreneurship and organizational psychology research, namely the proactive personality scale (Bateman and Crant, 1993), the entrepreneurial alertness scale (Tang et al., 2012), the boundaryless mindset scale (Briscoe et al., 2006) and the self-directed protean orientation scale (Briscoe et al., 2006). To our knowledge, none of these scales have been adapted to Tunisian context or even to North African context. All scales have been abridged to suit the population under study. As recommended in previous career research, we have not taken students' population or people in school-to-work transitions (Briscoe et al., 2012; Koen, Klehe & Van Vianen, 2012; Uy et al., 2015). In such a situation, people do not need to adapt to change after having invested heavily in some particular career direction.

Finally, we have been able to consider vocational constructs under a very specific context, namely economic recession in a developing country whereas most vocational studies have been conducted in healthy economies, developed or emerging countries (USA, European countries, Malaysia...).

Despite its contributions, this study is subject to some limits. One of these is due to cross-sectional data, which is problematic due to common method variance issue (Podsakoff & al. 2003). It is likely that the factors exhibit notable forms of spurious correlation and that we can hardly interpret any causal link on the basis of a single wave. Thus, this study should be replicated using a longitudinal setting.

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