

How do self-direction and values-drive of protean career orientation determine career outcomes?

Protean career orientation and its outcomes

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Abstract

Purpose – The article shows partial proof for the protean paradox existing outside of the Anglo-Saxon part of the world. We pose questions about the impact of each protean career orientation (PCO) dimension on career outcomes, i.e. objective career success (OCS) and subjective career success including career satisfaction (CS) and perceived employability (PE) of studying employees.

Design/methodology/approach – We collected data among postgraduate students (N=239) using a paper-and-pencil questionnaire. We estimated the model using structural equation modeling.

Findings – The self-direction of PCO improves CS and PE, but only if a person achieves OCS in the organization. We found the same mediation pattern for the values-drive of PCO but in the opposite direction, i.e. greater orientation on personal rather than organizational values – values-drive of PCO was associated with lesser career outcomes. Interestingly, values-drive had a small and direct impact on PE.

Originality/value – This study helps us understand how both dimensions of PCO affect career outcomes differently: objective success and subjective factors like CS and PE among employees who are studying.

Keywords Objective career success, Perceived employability, Career satisfaction, Protean career orientation
Paper type Research paper

Introduction

Protean career orientation (PCO) empowers employees to drive their careers for growth and fulfillment through self-direction and values-drive (Hall, 2002; Briscoe & Hall, 2006; Briscoe, Hall, & Frautschy DeMuth, 2006). Protean career orientation emphasizes individual agency, where organizational careers are just one option. Careerists, guided by individual values, seek opportunities aligning with their aspirations. In environments marked by brittleness, anxiety, non-linearity and incomprehensibility (BANI) (Cascio, 2020), achieving career outcomes demands aligning personal values with organizational objectives to obtain career satisfaction (CS) and perceived employability (PE). Managing protean careerists' challenges organizations, especially amid labor shortages. Objective career success (OCS) is just one facet for these individuals. They prioritize personal values, raising concerns about job commitment. Managing them well requires skill, attention, understanding of goals and working together on their career. Balancing personal and company values and motivations makes traditional career management tricky in organizations. Despite all the above, Hall, Yip, and Doiron (2018) have coined the term "protean paradox" to explain that "individuals who are self-directed and values-oriented make better organizational citizenship and can be more likely to commit to the organization." Thus, protean careerists tend to achieve OCS in organizations as well as subjective ones – CS and PE.

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According to the literature review, implementing PCO delivers career outcomes (Fugate, Kinicki, & Scheck, 2004; Waters, Briscoe, Hall, & Wang, 2014) valuable for the employee and the organization alike, such as OCS (Baruch, 2014; Rodrigues, Guest, de Oliveira, & Alfes, 2015), CS (Heslin, 2005; Gubler, Arnold, & Coombs, 2014; Herrmann, Hirschi, & Baruch, 2015; Aydogmus, 2019) and increased employability (Vos and Soens, 2008; Veld, Semeijn, & van Vuuren, 2015; Lin, 2015; Cortellazzo, Bonesso, Gerli, & Batista-Foguet, 2020; Nimmi, Zakkariya, & Nezrin, 2020). On the other hand, research findings indicate that the impact of PCO on career outcomes may be negative (Supeli & Creed, 2016), positive but mediated (Vos and Soens, 2008; Lin, 2015), or different for each of the PCO dimensions (Enache, Sallan, Simo, & Fernandez, 2011; Volmer & Spurk, 2011; Briscoe, Henagan, Burton, & Murphy, 2012; Lo Presti, Pulviano, & Briscoe, 2018). The diversity of research findings motivates the pursuit of further investigations into the impacts of PCO on career outcomes.

Sullivan and Baruch (2009) and Gubler *et al.* (2014) pointed to a deficit in research addressing the antecedents and outcomes of protean careers and a shortage of diversified samples and respondents outside of the Anglo-Saxon world. In our study, we responded to the call for broader research in the field of protean career outcomes in specified groups of careerists (Schreurs, Duff, Le Blanc, & Stone, 2022). We conducted our empirical research in the Polish context, on a group of well-educated employees who had decided to participate in a postgraduate study. Postgraduate studies are not a common choice (Adult education 2016, 2018), and the selected group of employees consciously took on the challenge of studying and working professionally at the same time to develop their careers in line with the individual agency concept (Hall, 2002).

The overarching objective of this research is to deepen our comprehension of the career outcomes experienced by protean careerists. Achieving this goal requires posing two more specific questions. Firstly, given the dual nature of PCO, how do self-directiveness and values-driven orientations impact career outcomes and secondly, how do OCS influence subjective career successes, specifically, the CS and the PE of employees? In this contribution, we aimed to build a conceptual model to test the impact of specific dimensions of PCO, i.e. self-direction and values-drive, on achieving subjective career successes such as CS, PE and objective career success (OCS), with their interrelations.

This article is structured as follows. In the literature review, we will identify the complexity and ambiguity of the impact of PCO and its specific dimensions on CS, PE and OCS. On this basis, we will build a causal network (Pearl, 1995; Pearl & Mackenzie, 2021) and formulate four hypotheses and their extensions. We will use a causal diagram to represent the hypotheses and a structural equation modeling to quantify and test the hypotheses underlying the proposed network (Grace, Scheiner, & Schoolmaster, 2015). Finally, we will elaborate on our results, implications, limitations and suggestions for future research.

Literature review

Protean career orientation and career outcomes

Employees following the PCO anticipate change, are flexible, willing to learn, seek the required resources and demonstrate an awareness of self-identity or self-awareness (Hall, 2002, 2004). Protean career orientation brings objective and subjective (Spurk, Hirschi, & Dries, 2019), as well as individual and organizational career outcomes (Gubler *et al.*, 2014; Hall *et al.*, 2018). Scholars analyzed career outcomes as the objective career accomplishments and the subjective view of one's achievements, work-life balance and career development (Greenhaus, Parasuraman, & Wormley, 1990; Zhou, Sun, Guan, Li, & Pan, 2013; Spurk *et al.*, 2019). Ng *et al.* (2005) define subjective career success as employees' perceptions and feelings about their careers, which is mostly interpreted as employees' CS (Heslin, 2005; Gubler *et al.*,

2014; Kuron, Schweitzer, Lyons, & Ng, 2016). Moreover, PE (Eby, Butts, & Lockwood, 2003; Rothwell & Arnold, 2007; Vos and Soens, 2008; Vanhercke, Cuyper, Peeters, & de Witte, 2014) which is a subjective opinion on obtaining and maintaining a job as a result of taking responsibility for managing one's career (Fugate *et al.*, 2004; Waters *et al.*, 2014) is an expected career outcome by protean careerists. CS and PE as subjective career outcomes were the areas of our interest. OCS refers to observable, measurable and verifiable accomplishments derived from one's job or occupation, such as salary, promotions and job level (Judge, Cable, Boudreau, & Bretz, 1995; Seibert, Kraimer & Liden, 2001; Heslin, 2005; Arthur, Khapova, & Wilderom, 2005; Ng, Eby, Sorensen, & Feldman, 2005; Giraud, Bernard, & Trinchera, 2019). It brings an organizational response to how the protean careerist manages own career in work settings. Since Hall *et al.* (2018) state that "there is a relative lack of attention to objective career success as an outcome in studies of the PCO," we will address this shortcoming.

Impact of self-direction and values-drive within protean career orientation on career outcomes. We may capture the essence of these associations by investigating the relationships in which each PCO dimension, i.e., self-direction and values-drive, is a separate predictor of career outcomes (Volmer & Spurk, 2011; Briscoe *et al.*, 2012; Lo Presti *et al.*, 2018).

Self-directed employees are competent and motivated to learn to adapt to changes in organizations and the labor market (Hall, 2002; Briscoe & Hall, 2006). They choose to work as an employee or a collaborator with organizations where they can achieve CS and increase their PE and OCS. Scholars found that self-direction within PCO increases CS (Gasteiger, 2007; Enache *et al.*, 2011; Volmer & Spurk, 2011; Briscoe *et al.*, 2012). Moreover, self-direction causes increased PE. Research conducted among talented individuals has shown that both internal and external employability were higher when individuals took charge of their own career direction (Lin, 2015). This pattern is similar to what freelancers experience (Lo Presti *et al.*, 2018). Besides CS, self-direction should also positively influence PE and OCS. Seibert *et al.* (2001) found a positive impact of a proactive personality, an indicator of self-direction, on two measures of OCS: salary growth and the number of promotions in two years. Self-direction impacts performance as a measure of OCS, which Briscoe *et al.* (2012) documented. Contrary to the findings mentioned above, the self-direction dimension of PCO had no impact on OCS in Volmer and Spurk (2011) study.

Here, we are interested in examining the following hypothesis:

H1. A protean self-direction career orientation is positively associated with (a) CS, (b) PE and (c) OCS.

The protean career relies on freedom and growth values (Hall, 2002, 2004). The values-drive dimension of protean careers underlines the opposition between personal and organizational values in decision-making regarding work and career (Briscoe *et al.*, 2006). Protean careerists follow their own values and resign from organizational ones when a collision happens. Consequently, the impact of values-driven PCO on career outcomes is more complex. Assessments of how well employees realize their career goals, priorities and values indicate CS. People attached to their values should achieve high levels of CS. However, Volmer and Spurk (2011) did not find any significant impact. Conducting further research, Enache *et al.* (2011) found a negative effect of values-drive on achieving CS.

Following personal values encourages protean careerists to seek opportunities for better value fulfillment (Eby *et al.*, 2003). New career opportunities appear inside or outside the current organization. Thus, employees focus on being employable in other settings, tasks and positions to find a way to practice their values. Following one's own career, values should build the perception that suitable work settings are accessible, which Lin (2015) proves, indicating that PCO values-drive increases employability. Neither promotions nor salary proved to be significant outcomes of managing a career based on career values (Volmer & Spurk, 2011). We assume that employees who prioritize the organization's values may attain success within the

company, such as promotions, advancement in the hierarchy, bonuses, pay raises and positive performance evaluations. Thus, the chances of attaining OCS decrease with an employee's attachment to their personal values of freedom, growth and work-life balance.

Therefore, we posited that:

- H2. A protean values-driven career orientation is positively associated with (a) CS and (b) PE and negatively with (c) OCS.

Effects of objective career success on career satisfaction and perceived employability. High OCS like job promotion, compensation raises and excellent job performance exhibit that the protean career paradox exists (Hall *et al.*, 2018). OCS is experienced by committed and work-engaged employees. Organizations manage employees' careers to increase organizational effects, and as Bagdadlia and Gianecchinib (2019) stated, "subjective career success is, from the organization's point of view, a byproduct of this process." Career's counseling and development in organizations allow people to achieve OCS which in turn decreases turnover intentions, extends internal employability (Holtschlag, Masuda, Reiche, & Morales, 2020) and increases CS (Volmer & Spurk, 2011). On the other hand, a deepened analysis of research presented in 266 papers led Spurk *et al.* (2019) to conclude that predictors and outcomes of career success occur in reciprocal relations. Therefore, in some studies, OCS determines subjective ones and in others it works oppositely. Moreover, some research (Volmer & Spurk, 2011; Nimmi, Zakkariya, & Nezin, 2020) shows objective and subjective career outcomes in the same orders of causations. Despite it, we assume that OCS is a predictor of PE and CS, based on the assumptions that OCS influences subjective ones (Gu & Su, 2016) and that a protean career paradox exists.

People may achieve CS while realizing a variety of individual career values and goals. The individual agency approach (Hall, 2002) states that personal goals of a subjective nature allow for capturing the course of an employee's career. Employees are highly committed to the organization and focused on fulfilling company needs and standards, which in turn makes them more satisfied with their careers (Ahmed, 2019; Baidoun and Anderson, 2023). No one can claim to have accomplished their career goal if the career outcomes in an organization (OCS) do not confirm that. "Good performers" are sought-after assets in the job market and attract interest from other employers. It makes individuals feel that there are plenty of job opportunities beyond their current employer. Contrary to this, Rodrigues *et al.* (2015) confirmed that people committed to their organization and experience career development achieve higher internal employability and show low intention to quit. High OCS indicates that the employee did what was essential and valuable at their work and organizations. Regardless of whether the employee actually leaves the organization or not, high OCS increases their PE.

Thus, we assumed that OCS positively influences CS and PE, specified as the following hypothesis:

- H3. OCS is positively associated with (a) CS and (b) PE.

Although career outcomes are firmly embedded in the individual employee's agency, hence in support of organizational practices and effects, it is possible to influence subjective career successes (Holtschlag *et al.*, 2020) like CS and PE. OCS seems to be an important mediating variable, which allows us to broaden the findings by Gerber, Wittkind, Grote, and Staffebach (2009). They indicate that employees with an independent career orientation, which consumes PCO, have higher intention to quit which highly correlates with external employability. We assume that achieving OCS in an organization not only changes the perception of easily accessible employment somewhere else but also of successful employment and career at the current employer. The assumption for testing mediation was adopted from Briscoe *et al.* (2012), Vos and Soens (2008) and Lin (2015) studies, which

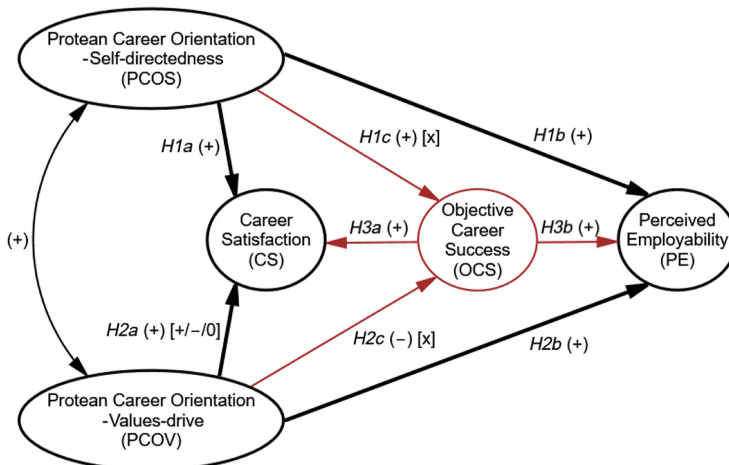
showed inconsistency in the impact of PCO on specific career outcomes (Spurk *et al.*, 2019). Thus, we predicted that OCS would mediate the relationship between PCO's dimensions, CS and PE. We had previously proposed that the two dimensions of PCO have an opposite impact on career outcomes, therefore, we predicted that the self-direction dimension of PCO would indirectly increase CS and PE via OCS. In contrast, the values-drive dimension of PCO would decrease all career outcomes. Relying on own values – as opposed to organizational ones – results in decreased OCS. According to mediation models, it negatively impacts CS and PE. As Sevgi (2017) proves, only the convergence of personal and organizational values increases CS. According to H3, OCS increases CS and PE. However, this influence will be mitigated if an employee follows their and not organizational values.

Therefore, we proposed the following hypotheses:

H4.1. OCS mediates the impact of self-direction in PCO on CS (H41a) and PE (H41b).

H4.2. OCS mediates the impact of values-drive in PCO on CS (H42a) and PE (H42b).

The conceptual model presents variables and their interrelations stated in the hypotheses (Figure 1).



Note(s): Thick arrows represent the model without mediation, while thin (red) arrows depict the full-mediation model. Both models are nested with the partial-mediation model, which comprises all arrows. [x] – Relative lack of research and attention paid so far. [+/-/0] – Research shows ambiguous results (positive, negative, or no effect). Hypotheses H41a and H41b state that the indirect effects of PCOS via OCS on CS and PE are positive, while H42a and H42b say that the indirect impacts of PCOV via OCS on CS and PE are negative. We assume that dimensions of PCO, i.e., PCOS and PCOV, are positively correlated

Source(s): Own elaboration

Figure 1. Conceptual model - partial mediation model nested with full-mediation model and no-mediation model

Method

Sample design and data collection

We focused on a specific group of employees who decided to develop. We assumed that these subjects navigate their careers and express self-awareness and adaptability to achieve career

advancements and fulfillment of extrinsic career values (Jackson & Tomlinson, 2019). Students are also an exciting group due to the assumption that they are in the transition stage between education and work or an upcoming career upgrade (Kunasz, 2014; Jackson & Tomlinson, 2019; Cortellazzo *et al.*, 2020). In the Polish education system, universities offer postgraduate studies with at least a bachelor's degree. The program used to be one year long and allowed employees to up- and re-skill.

We selected the study group so that it accounts for the group specificity. It consisted of people taking deliberate steps to develop their careers. Therefore, the study group was relatively homogeneous in terms of contextual variables, which increases internal validity by controlling for confounding variables and eliminating their potential influence. Thanks to eliminating the influence of confounding variables, we could establish trustworthy cause-effect relationships. However, the homogeneity of the study group reduced the external validity. This means that the results are generalized to similar populations.

We surveyed postgraduate students at the SGH Warsaw School of Economics in 2019. We collected pen-and-paper questionnaires during studying sessions on campus. We invited each student personally to participate in the research and consented to receive a questionnaire. Students voluntarily completed the paper-pencil interview survey, rating statements of latent variables on a 7-point Likert scale (1 – strongly disagree, 7 – strongly agree) and providing the socio-demographic and employment-related details. Despite the study group's specificity, the respondents represent a vast spectrum of employers with different human resources management systems. The estimated response rate was 64%, which seems reasonable in the study area and survey conditions.

The study sample included 239 subjects, nearly three-quarters female (74.7%). Their age ranged from 22 to 55 years, indicating a group of young and middle-aged respondents (mean (M) = 34 years, standard deviation (SD) = 7.68). Most respondents worked under employment contracts (83.4%, N = 191). They usually held managerial (43.1%) or expert positions (38.9%). More than half of the respondents (51.8%) worked for large organizations, while others for the micro, small and medium enterprise (MSME) sector. Respondents representing the private and public sectors had almost equal shares (55.9% and 43.6%).

Measurements

We used widely recognized scales to measure variables, CS (Greenhaus *et al.*, 1990), PCO, and its subscales, PCO self-direction (PCOS) and values-drive (PCOV) (Briscoe *et al.*, 2006). The original scales had been developed in English, which necessitated the development of a Polish version using a back-translation procedure (Brislin, 1980).

PCO involves two dimensions, with eight items used to diagnose self-direction and six to diagnose values-drive. We evaluated self-direction using items such as: "I am responsible for my success or failure in my career" or "Where my career is concerned, I am very much my own person;" and values-drive using items such as: "It does not matter much to me how other people evaluate my career choices" or "In the past, I have sided with my own values when the company has asked me to do something I did not agree with." The CS scale included five items diagnosing overall CS and achievement of career goals. Example statements included: "I am satisfied with the success I have achieved in my career," and "I am satisfied with my progress in achieving my goals regarding competence development."

We assessed OCS using our own scale's seven statements. We used items that represented career outcomes achieved through work in an organization such as one's position, performance appraisal results, promotions and their pace, pay raises and bonuses. These items correspond with the result of meta-analysis of OCS measurements (Ng *et al.*, 2005) and were used in a previous survey in Polish context (Fryczyńska, 2021). The respondents self-assessed themselves, but their answers also indicated what the OCS looks like in their

organization (e.g. “My boss appraises my work highly,” “I am promoted more frequently than others from my work”).

We measured PE using a scale consisting of six items, previously tested as valid and reliable in research among Polish employees. The obtained statements allowed us to assess if respondents felt equally confident about keeping their current job and finding a new one. We decided to utilize and adapt the scales developed by other scholars for example the scale of internal and external employability (Rothwell & Arnold, 2007) as well as the scale of PE of Vanhercke *et al.* (2014) which consists of latent indicators focusing on external employability. Sample items of our own scale included: “In the future, I see many career opportunities for myself,” and “When looking for a new and interesting job, I would find it in a short time”. For all scales, we evaluated statements using a 7-point Likert scale, where 1 means strongly disagree and 7 strongly agree, with 4 being neutral.

Analysis procedure

We analyzed the collected empirical material using the IBM SPSS 26 software with IBM AMOS. Before the start of an analysis, we recorded revised statements to maintain consistency with the concepts. The missing data rate was 2% and we deleted the incomplete responses pairwise. We used Harman’s single-factor test to check for common methods bias (Craighead, Ketchen, Dunn, & Hult, 2011). The first factor accounted for only 28% of the variation, which warrants the conclusion that this was not a problem in our study (Craighead *et al.*, 2011; Ullah, Hameed, Kayani, & Fazal, 2019). Next, we checked scales’ psychometric properties using confirmatory factor analysis (CFA) and applied causal Bayesian network and structural equation modeling to test three postulated models (see Figure 1).

Psychometric properties of the scales

We evaluated scales’ psychometric properties based on their reliability and validity, in accordance with the call of Gubler *et al.* (2014). We evaluated composite reliability (CR) and convergent, discriminant and theoretical validity. As the scales had not previously been tested in Poland, a CR of 0.6 was considered to represent an acceptable level of reliability and 0.7 as indicating good reliability. For the same reason, we evaluated convergent validity using a criterion based on CR, which is less conservative than the one based on the average variance extracted (Fornell & Larcker, 1981).

Rönkkö and Cho (2020) indicate that commonly used F-L criteria for discriminant validity are severely biased, having a high false-positive rate in detecting the lack of discriminant validity. Therefore, we decided to evaluate discriminant validity, i.e., whether inter-construct correlations differ from unity, using the SEM-based nested-models approach, where one tests the justification of constraining the correlations between constructs to 1.0 (Bagozzi, Yi, & Phillips, 1991). Theoretical validity is achieved when convergent and discriminant validity exists.

Structural models

According to the competing models’ approach (Jöreskog, 1993), we considered three alternative models presented in Figure 1. The model with no mediation (thick arrows) and the full-mediation model (thin red arrows) are nested with the third model, i.e. the partial-mediation one, which comprises all arrows. First, for each postulated model, we derived testable implications concerning the conditional independences (Pearl, 1995; Grace *et al.*, 2015; Rohrer, Hünermund, Arslan, & Elson, 2022) based on the causal Bayesian networks underlying proposed causal models. We used the AMOS D-separation procedure similar to DAGitty.net (Textor van der Zander, Gilthorpe, Lisiewicz, & Ellison, 2016) to automate the

process and test the derived implications based on partial correlations between constructs. Next, we estimated all three models simultaneously by applying the nested-model approach, whereby we subjected the most generic model (model with partial mediation – model 1) to constraints leading either to a model with no mediation (model 2) or one with full mediation (model 3). Subsequently, we selected the best-fitting model based on $\Delta\chi^2$ and ΔTLI (Chen, 2007; Cheung & Rensvold, 2002), supplemented by conditional independence criteria.

We evaluated model's fit with root mean square error approximation (RMSEA), standardized root mean squared residual (SRMR) and Tucker–Lewis index (TLI) (Hu & Bentler, 1998; Maydeu-Olivares, Shi, & Rosseel, 2018). The criteria for model evaluation were RMSEA 0.05 and 0.08 (Browne & Cudeck, 1993) and SRMR 0.08 (Hu & Bentler, 1999). Sharma, Mukherjee, Kumar, and Dillon (2005) report that when the sample size is small (around 200) and the number of manifest variables is large (more than 24 indicators), researchers should use a more liberal criterion for TLI – 0.80. Our case met both conditions. Thus, we opted for the criterion proposed by Sharma *et al.* (2005).

Results

Psychometric properties of the scales assessment

We estimated the reflective measurement model comprised of all constructs found in the conceptual model through confirmatory factor analysis (CFA). We assumed all constructs to be correlated to verify discriminant validity. The measurement model fit was acceptable. Chi-squared value was 984.15 (454 df). RMSEA of 0.071 indicated an adequate model fit, while SRMR of 0.0695 demonstrated a good model fit. TLI = 0.818 was above the threshold suggested by Sharma *et al.* (2005). Standardized regression weights (factor loadings) had the expected signs and exceed the value of 0.5 except for two indicators listed in the discussion (PCOS1, PCOS8). As for PCOV2 and PCOV3, which values were below 0.5, we confirmed that the bootstrap confidence interval calculated using the bias-corrected percentile method based on 2000 replications contained 0.5, meaning that factor loadings did not differ significantly from 0.5. All scales were characterized by high CR, exceeding 0.7, indicating that all constructs were reliable and had convergent validity (Fornell & Larcker, 1981) (see Table 1).

To test discriminant validity, for each inter-construct correlation, we compared two nested models, i.e., an unconstrained model and a model with a corresponding correlation constrained to 1. The imposed constraint resulted in a poorer fit in the case of all correlations ($\Delta\chi^2(1)$ ranged from 47.8 for OCS–PE correlation to 309.1 for PCOV–CS correlation). This means that all the correlations between construct differed from 1, and thus, we could recognize discriminant validity (Bagozzi *et al.*, 1991).

Constructs	Dimensions	CR	PCOS	PCOV	CS	PE	OCS
protean career orientation (PCO)	self-direction (PCOS)	0.786		<i>116.6</i>	<i>300.5</i>	<i>196.3</i>	<i>176.6</i>
	values-drive (PCOV)	0.779	0.603		<i>309.1</i>	<i>272.0</i>	<i>288.2</i>
career satisfaction (CS)		0.897	0.402	0.065		<i>235.0</i>	<i>114.6</i>
perceived employability (PE)		0.843	0.541	0.258	0.622		<i>47.8</i>
objective career success (OCS)		0.811	0.539	0.137	0.738	0.817	

Table 1.
Convergent and discriminant validity assessment

Note(s): The values in the lower triangle are inter-construct correlations; the italic, above the diagonal values, are $\Delta\chi^2(1)$ for a model comparison when the corresponding correlation is constrained to 1

Source(s): Authors' own elaboration

Estimation of structural models

The results indicated that we should reject the model with no mediation ($\Delta\chi^2(4) = 237.3$, $\Delta TLI = 0.078$). Moreover, no-mediation model implies conditional independence between CS and PE when PCOS and PCOV are held constant ($PE \perp CS \mid PCOS, PCOV$), which is violated by the data (the corresponding sample partial correlation is 0.518, $t = 9.289$). The model assuming full mediation is not significantly worse fitted ($\Delta\chi^2(4) = 8.1$, $\Delta TLI < 0.01$) as compared to the partial-mediation model and should be selected due to simpler model preference. However, the causal network underlying the full-mediation model requires the conditional independence of PE and PCO dimensions when OCS is held constant ($PE \perp PCOV \mid OCS$ and $PE \perp PCOS \mid OCS$). That is not the case, as assessed based on partial correlations (0.256 and 0.207). We unrestricted the PCOV- > PE path parameter to meet the conditional independence criteria (see Model 4 in Table 2). Model 4 fit data equally well as the partial-mediation model, therefore, we chose it as a simpler one. We may deem the fit of model 4 acceptable considering the RMSEA and SRMR values, which did not exceed 0.08. The TLI was above the 0.80 cutoff suggested by Sharma *et al.* (2005), and all conditional independences are met.

Choosing model 4 allowed us to reject H1a and H2a, assuming a direct impact of both dimensions of PCO on CS and H1b, stating that values-drive PCO influences PE.

Table 3 shows the indirect and direct effects of model 4. Direct effects indicate a positive effect of PCOS on OCS (accordingly to H1c) and a positive effect of OCS on CS and PE (accordingly to H3a and H3b).

The indirect effects of PCOS on CS and PE were also positive, which confirmed hypotheses H41a and H41b. Conversely, while fostering PE (H2b), PCOV inhibits OCS, as we assumed in H2c. Consequently, the indirect effects of PCOV on CS and PE are also adverse, consistent with hypotheses H42a and H42b (Figure 2).

In summary, we confirmed hypotheses on the association of OCS with PCOS and PCOV (H1c and H2c), and hypotheses regarding mediation (H41a, H42a, H41b and H42b). As for the direct impact of PCOS and PCOV on CS and PE, our research supported only H2b. Meanwhile, we rejected H1a, H1b and H2a.

Discussion

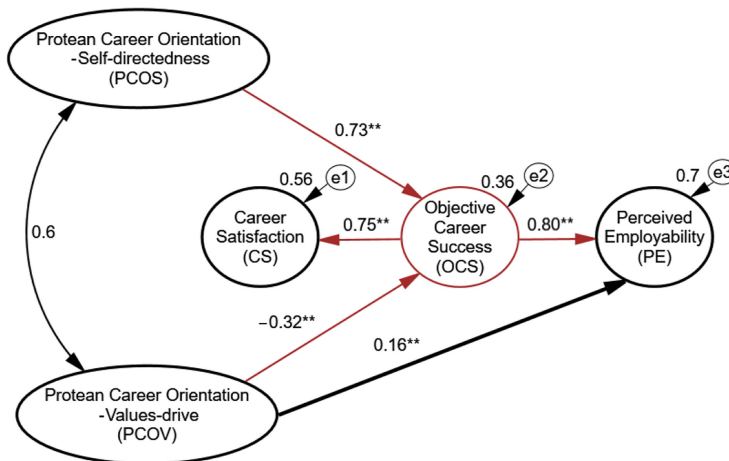
We addressed a recent call for testing career outcomes of PCO and its dimensions of self-direction and values-drive (Gubler *et al.*, 2014; Hall *et al.*, 2018). The contribution of this study was threefold.

Model	D-separation criteria	Model fit					Comparison to model 1	
		χ^2	df	TLI	RMSEA	SRMR	$\Delta\chi^2(df)$	ΔTLI
1. Partial mediation	met	984.4	455	0.820	0.071	0.069		
2. No mediation	not met	1221.7	459	0.740	0.084	0.171	237.3(4)	0.078
3. Full mediation	not met	992.6	458	0.830	0.071	0.071	8.1(4)	0.000
4. Full mediation with PCOV- > PE path added*	met	985.1	458	0.820	0.070	0.070	0.6(3)	-0.002

Note(s): We used D-separation as a formal procedure for determining conditional independence based on the causal Bayesian network underlying the model to detect model misspecification. *We unrestricted the PCOV- > PE path parameter to meet the D-separation criteria

Source(s): Authors' own elaboration

Table 2. Model fit indices and model comparisons



Note(s): The standardized estimate are shown in figure. ** $p < 0.01$. The path PCOV→PE was added to the full mediation model

Source(s): Own elaboration

Figure 2. Full-mediation model with a path added based on the discovery of non-independence (model 4)

Firstly, each PCO dimension had a different impact on the achievement of career outcomes. The self-direction dimension of PCO directly increased OCS and was consistent with findings by Volmer and Spurk (2011) concerning salary increases and performance records (Briscoe *et al.*, 2012). On the other hand, we found no significant effects on CS or PE. Regarding the impact on CS, our findings oppose those by Volmer and Spurk (2011), Briscoe *et al.* (2012), Enache *et al.* (2011) and Gasteiger (2007). There was no significant direct interrelation between the values-drive dimension of PCO and CS, which is in line with research by Enache *et al.* (2011). In our sample, the values-drive dimension of PCO reduced such measures of OCS as a good performance appraisal record, holding positions of authority, fast track of development and promotions and achieving high compensation and significant bonuses. We found a negative impact on OCS, while Volmer and Spurk (2011) indicated no significant effects on objective or subjective career outcomes. People who prioritize personal values show a slightly higher belief in their employability. Even without concrete career achievements, they feel confident in their ability to secure new jobs rather than retaining them. It seems that external employability, rather than internal factors, aligns better with our findings, as previously suggested by Lin (2015).

Secondly, addressing the need for research on the protean paradox (Hall *et al.*, 2018), we assumed that the achievement of CS and PE requires objective career outcomes in organizations. Our study confirmed the hypotheses regarding the positive impact of OCS on CS and PE. The falsification of hypotheses regarding the direct effect of self-direction PCO dimension on CS and PE led us to conclude that OCS plays the role of a mediator. Moreover, we confirmed the lack of direct effect of values-drive of PCO on CS.

Thirdly, the impact of the two PCO dimensions on all career outcomes followed various paths. Our findings demonstrate that only the self-direction aspect of PCO greatly influences career success. CS and PE can only be achieved if one's work produces OCS, which proves the protean paradox. This finding somewhat contrasts that by Heslin (2005), who found that non-linear careers, including those involving PCO, should be evaluated by subjective career success criteria. On the other hand, values-drive reduces OCS, further deteriorating CS and PE. Relying on personal values more than on organizational ones

decreases OCS which, as a mediator, decreases CS and PE. It seems opposite to the “protean paradox.” Researched subjects were half successful protean careerist, because only their self-directedness allowed them to experience career outcomes. Being aware of one’s own values and following them may indeed hinder performance in one’s work for the organization and decrease all career outcomes as a result. Conversely, prioritizing organizational values over personal ones leads to strong dedication and commitment to the organization, resulting in career advancements like pay raises, promotions and high performance. The impact of values-drive in PCO on career outcomes is not consistent with the past research (Enache *et al.*, 2011; Volmer & Spurk, 2011; Briscoe *et al.*, 2012). Our findings warrant further investigations regarding the impact of values-drive PCO on career outcomes. Otherwise, one could assume that the basic premise of a protean career, involving freedom and growth values (Hall, 2002, 2004) leads to poor OCS and then increases employees’ CS and PE.

Implications for research and practice

The study has several implications for individuals, managers and human resource management (HRM) departments (Jung & Takeuchi, 2018; Holtschland *et al.*, 2020). It demonstrates that those who manage their own careers while working in selected workplaces or organizations achieve OCS. These employees prove their effectiveness through performance reviews, bonuses, high salaries, promotions and enhanced social status. They show commitment to the organization (Hall *et al.*, 2018) and consistently meet high-quality standards. Therefore, employers should prioritize proactive candidates when making hiring decisions. Managing employees whose careers are self-directed requires managers and HRM departments to implement solutions that allow for adjusting tasks for each employee. This potentially enables the protean careerist to find suitable positions to achieve OCS, which translates into their CS and PE.

Research shows that relying on one’s own values in the management of one’s career, i.e. values-drive, adversely affects career outcomes. Therefore, in their selection process, employers should focus on candidates whose own values, goals and priorities are consistent with those of the organization. Consequently, the employees’ individual self-identity should match the company identity. The employment of individuals sharing the organization’s values is associated with better outcomes from their work, which is valuable for both the employee and the organization.

Employees with a high level of OCS are satisfied with their jobs, which makes them less likely to seek opportunities elsewhere, as they accomplish their career goals as expected. Increasing PE, especially external employability, poses a challenge to organizations, as it entails the risk of losing successful employees. Though employee turnover is a natural occurrence in HRM, it should be limited in certain situations, which, as Baranchenko, Xie, Lin, Lau, and Ma (2020) reported, can be achieved through solutions that increase perceived organizational support.

Based on the present findings, we suggest that employees to pursue self-direction in their careers and work for organizations whose values are mostly identical to their own, personal values. Then, they will achieve OCS, which is also beneficial for employers. In turn, they experience CS and the ability to maintain or change their job as preferred.

Limitations and future research suggestions

We performed our study on a sample of postgraduate students from a single university who are a group of workers focused on professional development. It encourages their higher awareness of new career models’ e.g. protean career. The outcomes of this research cannot be

generalized to a general population of workers. Despite this, the study brings insight into the findings on careers of postgraduate students across universities to draw conclusions about their career antecedents and outcomes.

It remains important to keep in mind the specific considerations regarding latent variable measurement using scales in questionnaire surveys. We measured variables based on employees' opinions, which may result in certain limitations although [Heslin \(2005\)](#) states that self-reporting is a legitimate measure even for OCS. Standardized path loadings for two items measuring the self-direction dimension of PCO, i.e. PCS1 and PCS8, did not exceed 0.4. To some extent, these indicators weakened scales' psychometric properties but their inclusion is crucial for the scale concept introduced by [Briscoe *et al.* \(2006\)](#). There is a trade-off between fit to data and comparability of results.

The reference values for measures of fit in structural models should be analyzed in context. Sample size and the number of manifest variables may affect model fit indices. [Hu and Bentler \(1998\)](#) indicate that at a small sample size of ≤ 250 , which was the case in our study, TLI and RMSEA substantially over-reject true models. Moreover, other conditions being equal, a model with more indicators per construct provides a more powerful, precise test than one with fewer indicators per construct, which may result in lower fit measures. Moreover, TLI is affected by two models (the null model and the tested one), so its values also rely on the quality of the null model fit. This supports the preference for using RMSEA and SRMR over TLI. Further research could involve constructing a PCO measurement scale in which both of its subscales would be in the same direction or there would be the same number of reversed statements in each of them. That would increase the chance of the measurement homogeneity in each of the two subscales. The study of relationships between PCO and OCS using data from respondent's employers requires further development.

Another exciting factor is the variability of tested relationships in different age and professional groups due to their career challenges ([Schreurs *et al.*, 2022](#)). We provided evidence for the relationship between PCO dimensions and career outcomes such as OCS, CS and PE in the context of the group that exhibited an interest in competence and career development. Research aimed at different contexts may provide further insights into the topic. Although Polish women are better educated than men and invest more in development, also by joining postgraduate studies, they are underestimated in leadership advancement and at high-skilled jobs in companies ([GTCL, 2022](#)) and still discriminated in pay ([Eurostat, 2022](#)). Our study corresponds with the importance of women's careers, as emphasized by the 2023 Nobel Prize winner in Economy, prof. [Goldin \(2021\)](#). Therefore, we highly recommend further investigations on women's career outcomes as protean careerists.

Conclusions

We presented evidence of the protean paradox extending beyond the Anglo-Saxon world. It deepens our understanding of how the two dimensions of PCO, namely self-directedness (PCOS) and values-driven (PCOV), impact career outcomes. Specifically, we examined OCS and subjective outcomes such as CS and PE among studying employees.

Our findings indicate that OCS entirely mediated the influence of each dimension within PCO on CS. Similarly, OCS mediated the PCOS and PE. However, partial mediation exists in the case of the PCOV dimension of PCO. Furthermore, our results highlighted contrasting effects of PCO dimensions on OCS. While PCOS positively enhanced OCS, leading to improved PE and CS, PCOV negatively impacted OCS, consequently affecting PE and CS.

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