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Linking Protean and Boundaryless Career Attitudes to Subjective Career Success: A Serial Mediation Model

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and Jonathan Peterson¹

Abstract

This study examines the link between protean career and boundaryless career attitudes and subjective career success. We propose that employees with protean and boundaryless career attitudes are more likely to engage in job crafting behavior, ultimately leading to career commitment and career satisfaction. Data from 321 business professionals working in France revealed that protean and boundaryless career attitudes predict subjective career success in the form of career commitment and career satisfaction through job crafting. The data also revealed a serial mediation pathway whereby protean and boundaryless career attitudes positively predicted job crafting behavior, which lead to stronger career commitment and increased career satisfaction. These results highlight the importance of job crafting behavior as an important, yet unexplored work-related phenomenon with significant organizational implications.

Keywords

protean career attitude, boundaryless career attitude, job crafting, career commitment, career satisfaction

The globalization of economies, rapid technological advancements, and an increase in competition have not only brought about changes to organizational work environments but have made careers less predictable, driving workers to take more responsibility for their career development (Guan et al., 2019; Haenggli & Hirschi, 2020). As organizations become flatter and opportunities for upward advancements become more limited (Shockley et al., 2016), the need for research investigating contemporary career types, characterized by increased self-directedness, a boundaryless

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attitude, and a focus on subjective career success (Lo Presti et al., 2018; Wiernik & Kostal, 2019) appears pertinent. Self-directed and individually customized career paths have gained importance, and they are becoming more relevant for successful career development (Wiernik & Wille, 2018).

Two career concepts, the protean career (Hall, 1996) and the boundaryless career (Arthur & Rousseau, 1996) offer insight into understanding how individuals may approach their careers. Protean individuals are self-directed in their careers, pursue personal career goals, and behave in ways consistent with their goals and values (Briscoe & Hall, 2006). Boundaryless individuals manage their career across organizational boundaries. They prefer not to stay with a single organization in order to pursue career growth opportunities and relationships beyond the boundaries of a single organization (Sullivan & Arthur, 2006).

Extant research has shown that a protean career attitude (PCA) and a boundaryless career attitude (BCA) are positively related to work-related outcomes such as a passion for work, organizational commitment and job satisfaction (Gulyani & Bhatnagar, 2017; Redondo et al., 2019). However, less attention has been given to understanding the outcomes of PCA and BCA on career-related outcomes (Wiernik & Kostal, 2019). A limited number of studies exists on the effects of a PCA and BCA on objective career success (e.g., salary, promotions). Moreover, fewer empirical studies exist on the effects of PCA and BCA on subjective indicators of career success and their findings less conclusive. We also do not have a sufficient understanding of how people with PCA and BCA attain their desired career success. Such research is needed to advance insights on why and how PCA and BCA may help individuals in achieving subjective career success (Wiernik & Wille, 2018).

To examine internal (subjective) processes induced by a protean and boundaryless mindset, we integrate two theoretical lenses: career motivation theory (London, 1983), and job crafting theory (Wrzesniewski & Dutton, 2001). Several authors have found that both career motivation and job crafting are important internal factors affecting a person's decision-making and work-related behavior (Dubbel et al., 2019; Petrou et al., 2018). Nevertheless, little research has given attention to these subjective processes within the protean and boundaryless literature. London's (1983) motivation theory offers some insight, as it maintains that a person's motivation to achieve desired career success affects their career decisions and behavior. However, the theory does not provide practical guidance for determining which type of behaviors are actually demonstrated toward the attainment of career goals. Job crafting theory addresses this limitation by arguing that individuals are involved in job crafting behaviors to create a resourceful and challenging work environment and attain career-related goals (Wrzesniewski & Dutton, 2001). Drawing from these two theories, we propose that individuals with protean and boundaryless mindsets will use job crafting as a strategy to achieve desired career success.

Purpose of the Study

This study aims to examine whether and how PCA and BCA are related to subjective career success. We draw on career motivation theory (London, 1983) and job crafting theory (Wrzesniewski & Dutton, 2001) to explain the relations between employees' career attitudes (PCA and BCA) and subjective career success in terms of (a) career commitment (the degree to which individuals' are motivated and attached to a chosen career role; Blau, 1985; Hall, 1971) and (b) career satisfaction (individuals' positive feeling or attitude about one's career progress; Greenhaus et al., 1990). Second, we propose that the indirect effects of PCA and BCA on subjective career success will be influenced by an individual's degree of job crafting (proactively modifying aspects of one's job to create a better person-job fit; Wrzesniewski & Dutton, 2001). Third, we examine the indirect effects of PCA and BCA on career satisfaction, as mediated by job crafting and career commitment (See Figure 1).

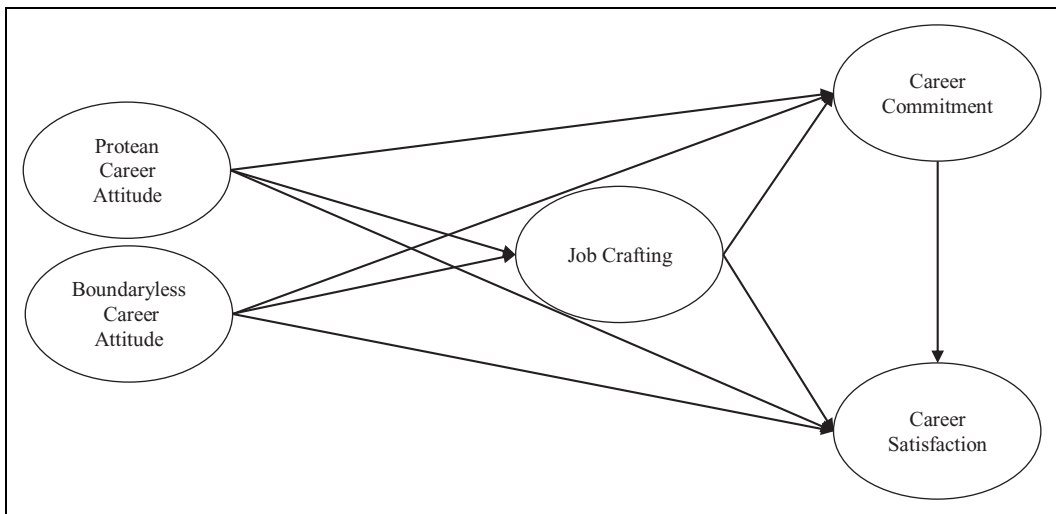


Figure 1. The hypothesized multiple mediation model.

Contributions of This Study

The present study contributes to filling three theoretical gaps. First, we contribute to career motivation and job crafting theories (London, 1983; Wrzesniewski & Dutton, 2001) by expanding the theoretical understanding of how PCA and BCA influence subjective career success. Second, we contribute to discovering the importance of employee job crafting, an important work-related concept (Dubbelt et al., 2019), that is still under-researched in the careers literature (Akkermans & Tims, 2017; Dubbelt et al., 2019). Finally, we contribute to a better understanding of the consequences of PCA and BCA by examining its influence on employee subjective career success.

PCA and BCA

PCA is a career mindset that plays a role in understanding individuals' careers and their work lives (Baruch, 2014). According to Hall (1976, 2004), individuals with a protean career mindset do not rely on others (i.e., a specific organization) to manage their careers because they are self-directed, flexible, adaptive, and changeable, thereby able to manage their careers on their own. Likewise, PCA reflects a self-directed approach in which individuals manage their careers according to their personally meaningful values (Hall et al., 2018). The PCA has two dimensions: self-directed, in which individuals plan and make career decisions on their own rather than relying on others, and values-driven in which individuals have their unique definition of career success (Briscoe & Hall, 2006).

In comparison, the BCA underscores a contemporary view of careers as extending beyond the borders of a single organization (Stauffer et al., 2019). According to Sullivan and Arthur (2006), individuals with boundaryless career mindsets navigate their careers across a single employer and a traditional career arrangement. Two dimensions compose the foundations of the model: a boundaryless mindset and an organizational mobility preference. The BCA refers to the individual's attitude toward working and making relationships across the organizational boundaries. In contrast, the organizational mobility preference refers to the individual's proclivity for not staying with a single job or employer but moving between and across organizations (Briscoe et al., 2006).

Within the career's literature, the PCA and BCA appear as two related yet theoretically distinct concepts (e.g., Abessolo et al., 2017; Briscoe et al., 2006; Porter et al., 2016). The protean career is conceptualized as a career that is managed or driven by the individual, not organizational factors (Hall, 1996, 2004); whereas, the boundaryless career is defined as the sequence of job opportunities that go beyond the boundaries of any single employment setting (DeFillippi & Arthur, 1994, p. 307). Individuals with the PCA prefer to be independent and responsible for managing their career paths (Wiernik & Kostal, 2019), and rely on personal values and desires while making career decisions and evaluating career success (Stauffer et al., 2019). In contrast, individuals with BCA respond to decreased organizational resources to meet their vocational challenges by seeking opportunities from outside their current employer such as, changing their work roles, occupations, and building professional connections (Guan et al., 2019; Stauffer et al., 2019).

PCA, BCA and Subjective Career Success

According to Judge et al. (1995, p. 03), career success reflects "positive psychological or work-related achievements one accumulates as a result of his or her work experiences" and entails both objective and subjective components. Objective career success is defined as tangible and measurable indicators, such as promotions, job level enhancements, and advances in salary (Judge et al., 1995). Subjective career success is concerned with one's evaluation and experience of achieving personally meaningful career outcomes such as job satisfaction, career satisfaction, career commitment, and perceived career success (Shockley et al., 2016). Hence, subjective career success depends on the individuals' own subjective evaluation of career goals or success (Seibert et al., 2001), reflecting the importance of their values, attitudes, and goals (Shockley et al., 2016).

In a recent meta-analysis of 45,288 individuals from 135 diverse occupations and 35 countries, Wiernik and Kostal (2019) found that PCA and BCA are less associated with objective career-oriented outcomes such as promotions and salary growth. Furthermore, research has shown that people with PCA and BCA give greater focus to their career management and development which drives their vocational behavior (Lo Presti et al., 2018; Stauffer et al., 2019). More specifically, Redondo et al. (2019) suggest that by taking ownership of their career choices, individuals operating with a PCA achieve positive psychological outcomes, including career and life satisfaction, and individual well-being. Similarly, Enache et al. (2011) argued that individuals exercising a BCA would develop their "knowing-whom" competencies (Lo Presti et al., 2018), which would provide access other people, thereby enhancing their development and personal learning (Kim & Beehr, 2017; Lo Presti et al., 2018). These factors are considered as salient predictors of subjective career success (Blickle et al., 2011; Spurk et al., 2019). Based on this understanding, we propose that:

Hypothesis 1: PCA is positively related to subjective career success in terms of (a) career commitment and (b) career satisfaction.

Hypothesis 2: BCA is positively related to subjective career success in terms of (a) career commitment and (b) career satisfaction.

PCA, BCA and Job Crafting

The notion of protean and boundaryless careerists managing their career paths (Wiernik & Kostal, 2019) suggests that these individuals are often engaged in proactive career behaviors such as career planning, networking, and pursuing growth opportunities (Li et al., 2019). Kostal and Wiernik (2017) suggest that protean and boundaryless careerists identify novel situations as opportunities to grow and match their career needs. Furthermore, they are curious about new work experiences and

desire to work in new ways and contexts in order to develop their work-related competencies and engage in proactive behaviors toward career-related outcomes (Abessolo et al., 2017; Guan et al., 2019; Lo Presti et al., 2018).

According to job crafting theory (Wrzesniewski & Dutton, 2001), employees engage in job crafting behavior to better match their motives, desires, and passions. Through job crafting, employees change the task boundaries of a job (i.e., undertaking additional tasks), the relational boundaries of a job (i.e., creating new networks), and the cognitive task boundaries of a job (i.e., how one views the job). The longitudinal work of Kim and Beehr (2018) on full-time employees working in the USA found that job crafting is a type of pro-active behavior allowing the pursuit of increased positive work attitudes and career-related outcomes.

Several predictors of employee job crafting have also been suggested in research by several other authors (e.g., Butucescu et al., 2020; Kim & Beehr, 2017; Petrou et al., 2018). As individual-related predictors, employees who are more proactive, flexible, and adaptive in their work or career tend to engage more in job crafting in the workplace (e.g., Kim et al., 2018; Zhang & Parker, 2019). Moreover, those who have the motivation to achieve desired career success are more likely to demonstrate job crafting behavior (Tims & Knight, 2019). Therefore, one would expect that protean and boundaryless careerists tend to engage in job crafting behavior, as noted recent evidence suggests that these individuals step out of their comfort zones and engage in proactive behavior to achieve their desired outcomes (Guan et al., 2019; Gulyani & Bhatnagar, 2017; Ngo & Hui, 2018). In other words, the motivation to achieve desired career success encourages protean and boundaryless individuals toward proactive behavior. This proposition is in agreement with London's career motivation theory that suggests an individual's behavior depends upon his or her level of motivation to attain career success. Accordingly, we test the following hypothesis:

Hypothesis 3: (a) PCA and (b) BCA are positively related to employee job crafting.

Job Crafting and Subjective Career Success

According to Wrzesniewski and Dutton (2001), employees engage in job crafting behavior to assert control over their jobs, create a positive self-image in their work, or achieve work or career-related outcomes. Job crafting, therefore, has the potential to influence employees' career success (Kim & Beehr, 2017). Several studies have documented that proactive behavior and intentional actions positively construct one's career (Cenciotti et al., 2017; Kim et al., 2018). Moreover, it connects an individual to his/her job (Cenciotti et al., 2017), improves intrinsic work motivation (Tims et al., 2016), and helps an individual attain desired career goals or success (Lazazzara et al., 2020).

From this perspective, the work of Kim and Beehr (2017) argued that through job crafting, people explore career opportunities in ways that help them express their career goals, desires, and inspirations. Other researchers such as Cenciotti et al. (2017) and Kim and Beehr (2017) have also argued that employees engaged in job crafting behavior are more committed and satisfied with their jobs because job crafting helps them pursue better work meaning and identity. These perspectives suggest that job crafting may contribute positively to employees' career satisfaction and career commitment. More formally, we posit the following:

Hypothesis 4: Job crafting is positively related to subjective career success in the form of (a) career commitment and (b) career satisfaction.

In addition, some scholars have suggested that career commitment is a positive predictor of career satisfaction (Kim & Beehr, 2017; Sultana et al., 2016). However, this idea has received limited empirical support. Researchers who found a positive relation between career commitment and career

satisfaction (Ekmekcioglu et al., 2020; Sultana et al., 2016) emphasized that employees feeling committed to their career have positive feelings for their achievements and progress toward meeting their career goals. In line with these findings, Kim and Beehr (2017) suggest that committed individuals make significant investments in their careers (e.g., acquiring new skills), set high career goals for themselves, and put more effort into being successful in their careers. Furthermore, these actions contribute to intrinsic rewards such as self-satisfaction, which may lead to greater career satisfaction. Thus, we posit:

Hypothesis 5: Career commitment is positively related to career satisfaction.

The Mediating Role of Job Crafting and Career Commitment

We note that prior studies have produced evidence linking PCA and BCA to work and career-related outcomes such as work engagement, job satisfaction, and career satisfaction (e.g., Li et al., 2019; Lo Presti et al., 2018; Ngo & Hui, 2018). However, the mechanisms by which PCA and BCA are associated with career success are still unclear. London's (1983) theory recognized that individual characteristics associated with career motivation could affect career decisions and behaviors. However, the theory does not address which type of behaviors are demonstrated in order to pursue a desired career goal. To address this missing element, we integrate career motivation and job crafting theories as a means to more fully explain the relation between PCA, BCA, and career success. Hence, we propose the following mediation hypotheses:

Hypothesis 6: Job crafting mediates the relation between PCA and subjective career success in the form of (a) career commitment and (b) career satisfaction.

Hypothesis 7: Job crafting mediates the relation between BCA and subjective career success in the form of (a) career commitment and (b) career satisfaction.

Although several studies on PCA and BCA exist, none focus on the indirect relations of PCA and BCA on career satisfaction through job crafting and career commitment. Few studies have investigated the link between PCA and BCA and career commitment. Based on our hypotheses, we propose a serial mediation model linking PCA and BCA with career satisfaction. Specifically, we suggest that PCA and BCA may relate to job crafting, which subsequently increases employee career commitment and, ultimately, career satisfaction. This mediation chain is in line with the notion that proactive work behavior that enhances an individual's level of commitment can foster one's career satisfaction (Ogbuanya & Chukwuedo, 2017). Moreover, the link between career commitment and career satisfaction is consistent with the idea that feelings of commitment have substantial effects on an employee's level of satisfaction (Kim & Beehr, 2017; Sultana et al., 2016). Therefore, we hypothesize the following:

Hypothesis 8: (a) PCA and (b) BCA positively relate to career satisfaction through job crafting and career commitment.

Method

Study Context

The change in the global landscape is a very real and challenging issue for organizations. Our study takes place in France, a country which has experienced an increased international influence in the last decade. Although France is the second largest economy in Europe, career studies have lagged in catching up to the demographic changes in the country's workforce. According to Hofstede Insight (2020), France scores high in power distance and individualism dimensions of culture. Research

suggests that France is an individualistic society where people tend to focus on their attitudes, autonomy, independence, and success (Chan, & Cheung, 2016; Triandis, 2001). They are highly independent in career-related decision making and more curious about their career development (Mielly et al., 2017). Fisher and Connelly (2017) argued that France is experiencing a rise in contingent and project-based work, which is directly affecting how management must approach organizational structures and careers in more unstable work arrangements.

In a recent study, Guan et al. (2019) found an increase in voluntary mobility across different occupations in France, mainly due to the changing nature of jobs. Giraud et al. (2019) study conducted among French business professionals found that employees are actively involved in job-hopping (the practice of making frequent voluntary job changes; Lake et al., 2018), which appears to represent increased protean and boundaryless career mindsets (Lake et al., 2018). Moreover, in France, few studies have been conducted on the relations between PCA, BCA, and career-related outcomes (e.g., Segers et al., 2008), which warrants further examination (Giraud et al., 2019).

Participants and Procedure

The data for this study came from full-time employees working in multiple sectors of France. In order to provide empirical support to our hypotheses, a survey instrument was designed to collect data from primary sources. The survey was administered online through emails, social networking sites (i.e., LinkedIn, Viadeo, Twitter, and Facebook), as well as to the alumni associations of the three authors' business schools. In some cases, paper-and-pencil surveys were distributed among employees enrolled in professional courses at the different authors' schools. Invitations to participate in the survey were initially sent to 890 participants. Each invitation included a short introduction about the purpose of the research along with the links to the survey form. The survey was presented in both English and French since these languages are spoken by a vast majority of the French population and are commonly used in organizational contexts (Bentein et al., 2017). The measurement items were translated from English to French using a back-translation method (Brislin, 1970) by one bilingual scholar with expertise in career psychology.

Participants who completed the survey through the pen-and-pencil method received a cover letter from the lead author. Following the guidelines of Podsakoff et al. (2012), we undertook several procedural remedies to minimize the common method bias and increase response accuracy. This included clearly stating survey instructions, providing detailed information on the purpose of the study, and assuring confidentiality and anonymity of participant responses. Moreover, it was clearly noted that participation was voluntary. None of the participants were compensated for their involvement in the study.

Of the 890 people contacted, 321 completed the survey ($n = 187$ through online means and $n = 134$ through the pen-and-pencil survey), representing a response rate of 36%. Respondents' age ranged from 20 to 66 years (mean age = 32.82, $SD = 9.01$), and average organizational tenure was 9.93 years ($SD = 8.21$). Of these respondents, 84% had a master's degree, 52% were women, and 55% worked in managerial positions. The respondents belonged to a variety of organizations and sectors such as information technology, transportation, construction, manufacturing, and banking.

Instruments

The assessment of the study's constructs relied on previously validated measures using 10-point Likert scales (1 = *strongly disagree* to 10 = *strongly agree*).

Protean career attitude (PCA). We measured PCA with six items from the scales of Porter et al. (2016; $\alpha = .81$) measuring two subscales. Self-directed was measured with three items ("In general,

I independently manage my career”; $\alpha = .81$). Value-driven was measured with three items (“What is most important to me is how I feel about my career success, not how other people feel”; $\alpha = .82$). At development, PCA measure was found to be internally reliable and consistent with Cronbach’s α s of .83 for self-directed and .77 for values-driven (Porter et al., 2016). Moreover, Gulyani and Bhatnaga (2017) found PCA scales to be internally reliable (i.e., $\alpha = .94$) and correlate in the expected directions with work-related outcomes such as a passion for work (.21) and proactive work behavior (.20), which established convergent and divergent validity.

Boundaryless career attitude (BCA). We measured BCA with a six-item scale (Porter et al., 2016; $\alpha = .75$), consisting of two subscales. Boundaryless mindset was measured with three items (e.g., “I like tasks at work that require me to work beyond my own department”; $\alpha = .87$). Organizational mobility preference was measured with three items (e.g., “I prefer to stay in a company I am familiar with rather than looking for employment elsewhere”; $\alpha = .90$). Porter et al. (2016) reported Cronbach’s α s of .91 for boundaryless mindset and .81 for organizational mobility preference in their study. Similarly, in the instrument validation study, the test–retest coefficients for two boundaryless career subscales ranged from $r = .52$ to $r = .77$ with $r = .77$ for an overall BCA scale, and the Cronbach’s α s of the two BCA subscales ranged from $\alpha = .74$ to $\alpha = .83$ with $\alpha = .84$ for an overall BCA scale (Stauffer et al., 2019).

Job crafting. Job crafting was measured using a nine-item scale (Slemp & Vella-Brodrick, 2013; $\alpha = .86$) measuring three subscales. Task crafting was measured with three items (e.g., “I give preference to work tasks that suit my skills or interests”; $\alpha = .80$). Relational crafting was measured with three items (e.g., “I make efforts to get to know people well at my work”; $\alpha = .79$). Cognitive crafting was measured with three items (e.g., “I think about different ways of doing work which can positively impact my life”; $\alpha = .88$). Previous studies confirmed the three-factor structure of the job crafting scale through factor analysis. These studies reported positive correlations with job satisfaction and organizational citizenship behavior and produced good internal consistency reliability scores ranging from $\alpha = .75$ to $\alpha = .89$ (Niessen et al., 2016; Slemp & Vella-Brodrick, 2013).

Career satisfaction. Employees rated their career satisfaction with a five-item scale proposed by Greenhaus et al. (1990). An example is, “I am satisfied with the progress I have made toward meeting my overall career goals” ($\alpha = .85$). In a sample of 1,628 managers, Greenhaus et al. (1990) reported a Cronbach’s α of .88. Similarly, in an instrument validation study, Spurk et al. (2014) found good internal consistency for career satisfaction scale across four occupational groups, ranging from $\alpha = .88$ to $\alpha = .92$.

Career commitment. Employees rated their career commitment with a five-item scale developed by Ellemers et al. (1998). Sample items are, “The ambitions in my life mainly have to do with my career” and “My career plays a central role in my life” ($\alpha = .92$). In a scale development study, Ellemers et al. (1998) reported Cronbach’s α of .88. Similarly, Vandenberghe and Ok (2013) also found good internal consistency ($\alpha = .91$) for career commitment scale in their study.

Control variables. We controlled for employees’ gender (coded 1 = male, 2 = female), age (assessed with a 7-point scale ranging from “under 25 years” to “over 50 years”), and organizational tenure (assessed with a four-point scale ranging from “less than 5 years” to “above 20 years”) as these demographic variables may be related to career commitment and career satisfaction (Ngo & Hui, 2018; Spurk et al., 2016; Xie et al., 2016).

Data Analysis

We tested our hypotheses using structural equation modeling (SEM) in AMOS version 24.0. Following the guidelines of Anderson and Gerbing (1988), the SEM was conducted in two stages. In the first stage, we conducted a confirmatory factor analysis (CFA) to check the fitness of our measurement model. In the second stage, we ran our hypothesized structural model, measuring the relations between study variables.

Results

Preliminary Analysis

Prior to analysis, all study variables were screened for missing data, normal distribution, and outliers. No missing data for any items in the analysis was found. To examine the univariate and multivariate outliers, interquartile ranges (box plots) and the criterion of the Mahalanobis distance were employed (Tabachnick & Fidell, 2007). No outliers were detected. Thereafter, we examined normality of constructs and found none of the variables to approach skewness $> |1|$ or kurtosis values $> |2|$ (Gravetter & Wallnau, 2014), suggesting that the data met the assumptions of normal distribution required for CFA. The descriptive statistics and intercorrelation among study variables are presented in Table 1.

Measurement Assessment

A series of CFA were conducted to check the acceptability of our measurement model and the distinctiveness of our five variables. As shown in Table 2, our hypothesized five-factor model that included PCA, BCA, job crafting, career commitment, and career satisfaction ($\chi^2 = 347.25$, $df = 417$, CFI = .962, RMSEA = .045, SRMR = .059, $p = .000$ was statistically significant above and beyond alternate models, including a four-factor model that allowed PCA and BCA to load on one construct ($\Delta\chi^2 = 343.11$, $\Delta df = 3$), another four-factor model that allowed career commitment and career satisfaction to load on one construct ($\Delta\chi^2 = 709.82$, $\Delta df = 4$), and a one-factor model that loaded all items on one construct ($\Delta\chi^2 = 1580.70$, $\Delta df = 9$). These results provide empirical support for the distinctive nature of our study variables.

To ensure the adequacy of our measures, we first examined the convergent validity through (i) item reliability (factor loadings), (ii) reliability coefficient (CR), and (iii) average variance extracted (AVE). Our results showed that the factor loadings of PCA ranged from .74 to .88, BCA ranged from .77 to .92, job crafting ranged from .67 to .95, career satisfaction ranged from .67 to .81, and career commitment ranged from .81 to .96 (all items significant at $p < .001$). These values meet the threshold value of .6 (Chin, 2010). Reliability coefficients were higher than the threshold value of .7, and all the AVE scores were higher than the threshold value of .5 (See Table 1; Fornell & Larcker, 1981), supporting the convergent validity of our constructs. In addition, we estimated the discriminant validity by comparing the AVE of each construct with the average shared variance (ASV) i.e. mean of the squared correlations among constructs (Hair et al., 2011). All the values of AVE were higher than the ASV constructs, thereby supporting discriminant validity (See Table 1).

Common Method Variance

Common method variance (CMV) is the amount of spurious correlation between variables created by using the same method (e.g., survey) to measure each variable. The marker variable technique consists of incorporating an additional variable into the study that is theoretically unrelated to at least one other variable of interest (Lindell & Whitney, 2001). We empirically examined the presence of

Table 1. Correlations and Descriptive Analysis.

Variables	Mean	SD	AVE	ASV	1	2	3	4	5	6	7	8	9
1. Age	3.02	1.65	—	—	—	—	—	—	—	—	—	—	—
2. Gender	1.52	0.50	—	—	.04	—	—	—	—	—	—	—	—
3. Organizational Tenure	2.06	1.06	—	—	.82**	.07	—	—	—	—	—	—	—
4. Education	2.81	0.59	—	—	.19**	.09	.17**	—	—	—	—	—	—
5. Protean Career Attitude	7.84	1.28	.56	.10	.07	-.05	.05	.11	(.81)	—	—	—	—
6. Boundaryless Career Attitude	7.12	1.43	.72	.12	-.03	-.01	-.05	.05	.41**	(.75)	—	—	—
7. Job Crafting	8.00	1.17	.59	.08	.03	.04	.08	.09	.40**	.27**	(.86)	—	—
8. Career Commitment	7.00	2.09	.71	.05	-.02	-.11	.01	-.07	.19**	.24**	.24**	(.85)	—
9. Career Satisfaction	7.60	1.49	.52	.05	.13*	.21**	.14*	.16**	.37**	.29**	.39**	.22**	(.92)

N = 321. SD = standard deviation, AVE = average variance extracted, ASV = average shared variance. The reliability coefficients are shown in parentheses along the diagonal of the table. *p < .05, **p < .01.

Table 2. Results of Confirmatory Factor Analyses of Study Measures.

Model	χ^2	df	$\Delta\chi^2$	Δdf	CFI	RMSEA	SRMR
Model 1 (hypothesized five-factor model)	347.25**	417	—	—	.962	.045	.059
Model 2 (four-factor model: combines PCA and BCA)	690.36**	420	343.11**	3	.870	.084	.115
Model 3 (four-factor model: combines CS and CC)	1057.07**	421	709.82**	4	.771	.111	.114
Model 4 (one-factor model)	1927.95**	426	1580.70**	9	.536	.156	.122

PCA = protean career attitude, BCA = boundaryless career attitude, CS = career satisfaction, CC = career commitment, χ^2 = chi-square, df = degree of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, SRMR = standardized root mean square residual. ** $p < .01$.

(CMV) using the CFA marker technique recommended in the literature (Podsakoff et al., 2012). We used Reade's (2009) three-item sensitivity to terrorism scale (e.g., "I seem to lose enthusiasm for work whenever I get news of terrorist incident") as a marker variable. We ran a model in which the indicators of the study's substantive variables were specified to load onto the latent marker variable ($\chi^2 = 305.298$, $df = 412$) and compared it to a model in which they did not load onto the marker variable ($\chi^2 = 365.442$, $df = 505$). The results showed that CMV was not present and so it did not bias the parameters of our model, as evidenced by a non-significant χ^2 difference test between the two models ($\Delta\chi^2 = 60.14$, $\Delta df = 93$, $p = .99$).

Hypothesis Testing

Given the acceptable fit of the measurement model, we chose a five-factor model to test our hypotheses. Our structural model (See Figure 2) had acceptable fit ($\chi^2 = 452.69$, $df = 498$, CFI = .963, RMSEA = .045, SRMR = .058, $p < .001$).

Hypotheses 1 and 2 suggested that PCA and BCA positively relate to career commitment and career satisfaction. Our results (See Figure 2) revealed that PCA was positively related to career satisfaction ($\beta = .27$, $p < .01$), while it was not related to career commitment ($\beta = -.026$, *n.s.*). In contrast, BCA was positively related to career commitment ($\beta = .25$, $p < .01$), while it was not related to career satisfaction ($\beta = -.010$, *n.s.*). Thus, Hypotheses 1 and 2 were partially supported.

Hypothesis 3 suggested that PCA and BCA are positively related to employee job crafting. We found positive and significant effects of PCA ($\beta = .38$, $p < .001$), and BCA ($\beta = .21$, $p < .01$) on employee job crafting. Similarly, in line with Hypothesis 4, we found positive and significant effects of job crafting on career commitment ($\beta = .23$, $p < .01$) and career satisfaction ($\beta = .34$, $p < .01$). Furthermore, we hypothesized that career commitment would be positively related to career satisfaction (Hypothesis 5). The results demonstrated that the effects of career commitment on employee career satisfaction was positive and significant ($\beta = .16$, $p < .05$). Taken together, we found support for Hypotheses 3, 4, and 5.

Hypotheses 6 and 7 suggested the indirect effects of PCA and BCA on employee subjective career success through employee job crafting. Our results (Table 3) revealed that the indirect effects of a PCA on career commitment ($\beta = .117$, 95% CI = .021; .256) and career satisfaction ($\beta = .133$, 95% CI = .048; .257) through employee job crafting were positive and significant, providing support to Hypothesis 6a and 6b. The indirect effects of a BCA on career commitment ($\beta = .044$, 95% CI = .004; .104) and career satisfaction ($\beta = .05$, 95% CI = .008; .113) through job crafting were also positive and significant, providing support to Hypothesis 7a and 7b.

Finally, in line with Hypothesis 8, job crafting and career commitment serially mediated the relation between PCA and career satisfaction ($\beta = .014$, 95% CI = .002; .033), and BCA and career satisfaction ($\beta = .006$, 95% CI = .001; .014), supporting Hypothesis 8a and 8b.

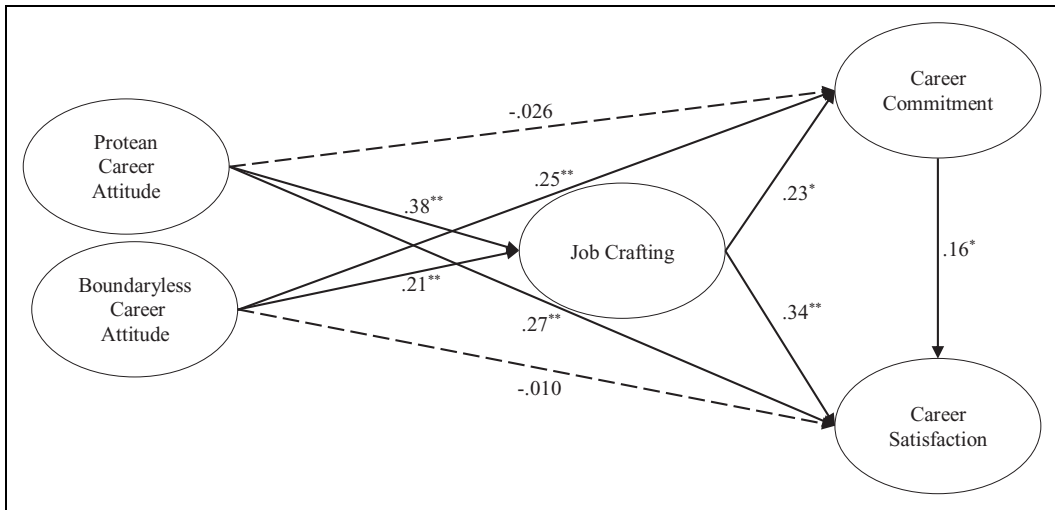


Figure 2. Results of structural model with latent variables and standardized coefficients. Dotted lines signify nonsignificant relations. * $p > .05$, ** $p < .01$.

Table 3. Results of Indirect and Multiple Mediation Paths.

Indirect paths	Bootstrapping 95% CI		
	B	LLCI	ULCI
PCA → Job Crafting → Career Commitment	.117**	.021	.256
PCA → Job Crafting → Career Satisfaction	.133**	.048	.257
BCA → Job Crafting → Career Commitment	.044**	.004	.104
BCA → Job Crafting → Career Satisfaction	.050**	.008	.113
PCA → Job Crafting → Career Commitment → Career Satisfaction	.014*	.002	.033
BCA → Job Crafting → Career Commitment → Career Satisfaction	.006*	.001	.014

N = 321. PCA = protean career attitude, BCA = boundaryless career attitude. * $p < .05$, ** $p < .01$.

Discussion

Although the topic of career success has attracted widespread research attention (Spurk et al., 2019), less is known about the internal processes induced by the PCA and BCA that explain career-related outcomes (Wiernik & Kostal, 2019). The goal of our research was to improve our understanding of these processes. Building on career motivation and job crafting theories, the present study hypothesized that PCA and BCA influence employee career success when job crafting is taken into account. We suspected that PCA and BCA might predict increased career commitment and career satisfaction through job crafting. In addition, we proposed a positive serial-mediated relation between PCA–career satisfaction and BCA–career satisfaction by means of job crafting and career commitment.

Our results reveal a different pattern of relations between employees’ career attitudes and career success. Results reveal that PCA directly predicts career satisfaction, whereas BCA does not. These results are consistent with previous research findings (e.g., Lo Presti et al., 2018; Stauffer et al., 2019) who found a significant direct relation between PCA and career satisfaction, and an insignificant direct relation between BCA and career satisfaction. We also found that BCA directly relates to

career commitment, whereas PCA does not. These findings may suggest that employees with BCA are more committed to their careers and less satisfied in their careers as compared to employees with PCA. Such findings align with previous research suggesting that despite the frequent movement between employers and occupations, boundaryless careerists do not change their career paths (Greenhaus et al., 2008), thus depicting more career commitment. Whereas, protean careerists may change their career paths (i.e., they are less committed to their careers) based on their personal values and interests (Thomson & Jaque, 2017) in order to achieve higher levels of career satisfaction.

In fact, job crafting has been shown to play an important role in individuals' career success (Dubbelt et al., 2019). Our findings suggest that PCA and BCA are significantly related to career commitment and career satisfaction when job crafting is introduced as a mediator. This is an interesting finding as it might explain the importance of job crafting toward subjective career success. In the recent work of Wang et al. (2020), the researchers emphasize the importance of job crafting in career success. They argue that by actively crafting the design of a job, employees could achieve personal development and career success. Similar indications of these relations are found in a meta-analysis of Lichtenthaler and Fischbach (2019), who indicate that employees who sought to satisfy their growth, advancement, and development actively engaged in job crafting.

We find support for the serial mediation of job crafting and career commitment between PCA–career satisfaction and BCA–career satisfaction relations. These findings are consistent with previous research pointing to PCA and BCA as crucial elements toward employee career success. Stauffer et al. (2019) and several other authors (Cenciotti et al., 2017; Kim & Beehr, 2017) further expanded this idea by indicating the importance of job crafting and career commitment in fostering individual levels of career satisfaction. Wiernik and Kostal (2019) argued that individuals with PCA and BCA perform more proactive and adaptive behaviors. Such proactive behaviors (i.e., job crafting) raise individual levels of career commitment (Kundi et al., 2020), which in turn, lead to career satisfaction (Ekmekcioglu et al., 2020; Kim & Beehr, 2017). Although we hypothesized that career commitment is a positive predictor of career satisfaction, the opposite could also be true. Supplementary analyses of non-hypothesized possibilities suggested that career satisfaction plays a role in predicting career commitment. This implies that employees who are more satisfied with their careers are more likely to be committed to their careers, corroborating the findings of Onyishi et al. (2019).

We contribute to the literature in several ways. First, job crafting is addressed as an effective strategy for protean and boundaryless careerists to achieve desired career success. While the main effects of PCA and BCA are not significant predictors of career commitment and career satisfaction, respectively, the indirect effects of these constructs by means of job crafting significantly predict the criterion of interest. Therefore, these findings contribute to the job crafting literature in that they provide support for job crafting behaviors that facilitate career-related outcomes (Cenciotti et al., 2017; Kim et al., 2018). Second, we address protean and boundaryless attitudes as facilitating employees in their career success. We provide empirical evidence showing the link between these career attitudes (PCA and BCA) and subjective career success in the form of career commitment and career satisfaction. This research enables us to deepen our knowledge about career-related outcomes of protean and boundaryless mindsets (Wiernik & Kostal, 2019) and provide a more comprehensive analysis of the process behind the positive effects on career success.

Third, we demonstrate that job crafting, and career commitment are meaningful for protean and boundaryless oriented employees in achieving the desired level of career satisfaction. Employees with PCA and BCA are more likely to be engaged in job crafting behavior, thus enhancing their level of career commitment. In turn, they may experience more motivation and satisfaction in their careers. Finally, our study extends the theoretical understanding of careers not only through examining the link between PCA and BCA and subjective career success, but also the use of job crafting and career motivation theories. This work demonstrates the importance of why and how job crafting behavior promotes greater career commitment and career satisfaction especially for those with PCA

and BCA. Our study findings have important theoretical implications for job crafting and career success research, as it responds to a recent call for further research on the consequences of PCA and BCA on work-related behaviors and subjective career success (Kim & Beehr, 2017).

Limitations and Future Directions

This study has several limitations. First, our data were collected at a single point in time. We did not adopt a longitudinal or experimental design that would allow us to draw causal conclusions about the observed relations. Although our theory supported the proposed causal direction of our theoretical model, and our findings supported our predictions, future research should use alternative research designs that strengthen causality. Another limitation associated with the use of self-reporting is the possibility of common method bias. However, there are a few reasons why this should not be a major limitation. First, self-reporting is an ideal way to assess many psychological concepts that have to do with job/career satisfaction, private needs, or perceived job characteristics (Conway & Lance, 2010). Many of our study variables, such as PCA, BCA, career satisfaction, and career commitment, certainly fall under this category of variables. As for the measures of job crafting, previous studies (e.g., Cenciotti et al., 2017; Dubbelt et al., 2019) have assessed it with a self-report because individuals are more able to make a distinction between different dimensions of their job crafting behavior (e.g., task vs cognitive) than supervisors who tend to produce overall judgments for an employee. Therefore, self-report seems to be an appropriate method to assess job crafting as well. Second, following the guidelines of Lindell and Whitney (2001), we employed a marker variable technique for assessing CMV and did not find evidence of CMV.

Furthermore, our study participants represented a specific sample of French employees, which may raise concerns about the generalizability of our findings. The French context is unique due to its changing workforce demographics (Fisher & Connelly, 2017). It would be of interest to determine if similar results would be found in other European cultural and geographical settings.

Future research could test the relation between the sub-dimensions of PCA, BCA and job crafting. This could be valuable for future research as more understanding may be potentially gained from knowing the effects of PCA and BCA on various sub-dimensions of job crafting (i.e., task, cognitive, and relational crafting). In addition, this study found evidence that gender influences employee subjective career success. Therefore, future research should test our model for women and men separately to have better insights because prior research suggests that men and women are likely to enact their careers differently because of social and psychological gender differences (Kostal & Wiernik, 2017). Women, in general, may have less freedom than men to engage in physical mobility because of spousal or family related barriers. Whereas, men in general may have less freedom than women to engage in psychological mobility because social expectations may oblige them to conform to traditional work roles or to provide for their families (Sullivan & Arthur, 2006).

Practical Implications

Several practical suggestions are apparent from our findings. First, understanding more about employees' job crafting behavior can clarify how exhibiting protean or boundaryless characteristics may influence their career commitment and career satisfaction. To facilitate employees with PCA and BCA toward their career success, organizations should make efforts to encourage job crafting behaviors such as supporting individuals in carrying out tasks independently, giving authority and autonomy to make small changes in their job, stimulating the desired behavior through increasing the complexity of jobs, ensuring that job crafting is encouraged not punished, and by providing job crafting training. If such efforts are made, employees will develop favorable career attitudes and actively manage their career paths, which will positively affect their sense of career success.

Second, considering the significant mediating roles of job crafting and career commitment in our research model, organizations should provide job crafting opportunities because it will enhance employees level of commitment with their jobs/careers as a result of achieving a person–job fit (Tims & Akkermans, 2020), which, in turn, will boost employees level of career satisfaction. Furthermore, career counselors can assess employees' levels of career commitment in processing issues of career dissatisfaction from protean and boundaryless perspectives. If employees feel committed to their career, they are more likely to feel satisfaction with their work-life and career progress, and this career satisfaction might contribute to improving overall organizational effectiveness as well as employees' well-being (Kim & Beehr, 2017).

Finally, given that protean and boundaryless individuals are naturally concerned with planning their careers, career counselors can explore their values with them and how their current work situation(s) help them to meet their career goals and initiatives or not. Where work situations limit individuals job crafting or fail to support individuals crafting needs or goals, career counselors can help individuals better understand what the work situations do offer them or to take a more proactive approach in exploring other situations to seek greater career commitment and career satisfaction. Career counselors can also help employees to be more self-directed and less reliant on others in their perceptions, thereby guiding them to action steps (Briscoe & Hall, 2006), may be achieved by building individuals' confidence in themselves through exploring how they can solve their career dilemmas in ways that are consistent with their personal values. In addition, career counselors can help employees in realizing that if they take more proactive control over their perceptions and what they are willing to endure in a work environment can encourage them to take steps toward planning alternative routes to career success, either physically, through job or career change, or cognitively, through (re)defining their own criteria for success.

Conclusion

This study makes contributions to theory and practice in the area of employee career management. We draw on career motivation and job crafting theories to empirically examine the important role of PCA and BCA on job crafting and subjective career success among French business professionals. We found that PCA and BCA promote job crafting behavior, which in turn enables greater subjective career success in the form of career commitment and career satisfaction. In addition, we found that PCA and BCA affect employee career satisfaction through a serial mediation between job crafting and career commitment.


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