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Examining reciprocal relationships between boundaryless career orientations and perceived employability. Unravelling dynamics of different boundaryless patterns

Abstract

The aim of this work is to perform a study of the existence of a reciprocal relationship between boundaryless career orientations and perceived employability to extend the uni-directional models that have dominated the literature. Hypotheses were tested by using a time-lag structural model run on longitudinal data collected three months apart. A reciprocal relationship between organizational mobility preference and perceived external employability is supported. Having a boundaryless mindset seems to be an antecedent of external employability, but the corresponding reverse causation is not (short-time) supported. All patterns of a boundaryless orientation are associated with increasing perceptions of external employability, but not with internal employability. The possession of a boundaryless mindset is likely based on long-standing factors, thus it's more stable than organizational mobility preference. Results are interesting for practitioners and career counselors, as they suggest that boundaryless workers require different management according to the different patterns of their career orientation.

Key-words: Vocational psychology, Boundaryless career orientations, Boundaryless mindset, Organizational mobility preference, Perceived employability, Longitudinal data, Reciprocal relationships.

1. INTRODUCTION

Workplaces today are characterized by frequent and intense changes, varying conditions and pressures of globalization (Holff et al., 2022). Employees are increasingly encouraged to build sustainable careers through sequences of career experiences, crossing several social spaces, and providing meaning to the individual (Van der Heiden & de Vos, 2015, Gorgievsky et al, 2018). Consequently, individual agency is key to conducting career development over time and thus workers are seen as the main owners and being primarily responsible for their careers. Accordingly, people have more independent and self-managed careers that involve variable positions in several organizations (Arthur, 2014; Guan et al., 2019). In this context of contemporary careers, the concept of the boundaryless career has been extensively recognized (Arthur & Rousseau, 1996; Rodrigues et al., 2019).

Arthur and Rousseau (1996) defined a boundaryless career as one which crosses different types of physical and psychological boundaries, acknowledging that individuals have substantial agency in their careers. Boundaryless workers use agency and extensive personal and work networks to follow a sequence of job opportunities beyond a single employer, in the search for cumulative employment-flexible career capital and to support and sustain their careers (Guan et al., 2019). A boundaryless career orientation is, then, the attitude or preference towards pursuing a boundaryless career. Briscoe et al. (2006) developed the most widely used measure of this concept distinguishing two sub-dimensions: 1) a “boundaryless mindset” (BM), or the capacity to seek out beneficial opportunities for experiencing new situations and to feel comfortable in interacting with people from different organizations and 2) an “organizational mobility preference” (OMP) or inclination toward physically crossing organizational boundaries in employment mobility.

Additionally, modern-day environments in a changing professional world entail the loss of job security and the lack of lifetime employment in a single organization (Blokker et al., 2019). For workers, this means the need to continuously evaluate their situation and to be cognizant of their employment opportunities while building their careers (Tomlinson *et al.*, 2018), leading to an increasing emphasis on employability. Employability is seen as a substitute for long-term job security and emerges as a crucial objective for those seeking continuous and meaningful employment (Van Harten et al., 2017; De Cuyper et al., 2012).

Both contemporary careers and employability accentuate mobility and continued personal growth and development as key components of the new career environment (Cortellazzo, et al., 2020). Accordingly, the existence of a relationship between employability and contemporary careers seems to be widely acknowledged. However, it is only recently that some researchers have begun to analyze this relationship, thus some of its issues have not yet been (fully) addressed. We especially believe that directionality in the relationship between

boundaryless career orientations and employability requires further exploration. There are two main reasons behind this fact. First, from a theoretical point of view, the bulk of the literature posits that boundaryless career orientations are antecedents of employability, thus, employability is deemed an outcome of careers (e.g. Blokker et al., 2019; Verbruggen et al., 2015; Wille et al. 2013, De Vos et al., 2020; Van der Heijden & De Vos, 2015; Chan & Dar, 2014). However, as we will argue, boundaryless career theory also supports the possibility that this relationship may be reciprocal, what has been largely ignored in previous research. Since employability is a career resource and a critical vehicle for delineating career trajectories and shaping career orientations, employability may also enhance the possibility of having a boundaryless career, as employability may be a pre-requisite for workers to be boundaryless (Savickas, 2002, 2013; Rodrigues et al. 2019; Guan et al., 2017). Accordingly, ignoring this fact may be problematic. From a technical point of view, this fact may lead to inaccuracy in corresponding models not accounting for this relationship. From a practical perspective, it may mean losing a way to nurture both employability and boundaryless career orientations, what are key issues for workers to navigate current turbulent markets (Rodrigues et al., 2015)

Secondly, very few studies have empirically examined the relationship between boundaryless career orientations and employability (Chan & Dar, 2014; Verbruggen et al., 2015; Bozionelos & Bozionelos, 2015; Lo Presti et al., 2018; Rodrigues et al., 2019) Moreover, as far as we could ascertain, no empirical studies have addressed this gap in the literature using longitudinal data for all the measurements. The limited empirical studies have been based either on cross-sectional data (Lo Presti et al., 2018; Chan & Dar, 2014) or longitudinal data, but with only one measurement per construct (e.g., perceived employability was measured at time 1 and career orientations were measured at time 2) (Rodrigues et al., 2019). These methodological choices limit the conclusions on directionality in the relationship, and longitudinal data for all the measurements should be used to analyze reciprocal relationships (Redondo et al., 2022). Additionally, most of these works have not considered the different sub-dimensions of a boundaryless career. However, recent meta-analysis by Wiernik and Kostal (2019) and recent work on the boundaryless career orientations by Redondo et al. (2021) suggest that the two sub-dimensions of a boundaryless career orientation present sound differences in concept and dynamics. Then, it is needed to consider separately the two underlying sub-dimensions in order to have a clear view of the relationships between boundaryless career orientations and employability.

Thus, this work attempts to fill this research gap by theoretically and empirically exploring the existence of a reciprocal relationship between boundaryless career orientations (both boundaryless mindset and organizational mobility preference sub-dimensions) and perceived employability, by using data collected at two time points three

months apart, from 134 Spanish workers. The choice of perceived employability as the perspective to focus on employability is due, as we will argue, to the wider approach that perceived employability offers vs other conceptualizations. Particularly, it lets us distinguish between internal (PIE) and external (PEE) employability, which can provide additional insights on the topic.

Accordingly, our work makes three contributions to both career and employability theories. First, we examine the reciprocal relationship between boundaryless career orientations and perceived employability, extending the one-way models that are pre-dominant in the existing literature (Chan & Dar, 2014; Verbruggen et al., 2015; Lo Presti et al., 2018; Rodrigues et al., 2019; Blokker et al., 2019; Wille et al., 2013; De Vos et al., 2020; Van der Heiden & De Vos, 2015). This is a key issue if we are to better understand the relationship between the two concepts. Second, by separately considering the different sub-dimensions of a boundaryless career orientation, we contribute to Boundaryless Career theory by showing the different dynamics of the two sub-dimensions of a boundaryless career. This way, we respond to the call made by Wiernik and Kostal (2019) and Redondo et al. (2021) for further research on the differences between “boundaryless mindset” and “organizational mobility preference” sub-dimensions. Third, by distinguishing between internal and external employability, we contribute to a better understanding on whether boundaryless career orientations relate differently to perceptions of employability inside and/or outside an organization, or not. Clarifying this fact will provide additional insights into issues of turnover. For practitioners and counselors, it is worth having a clear view of the relationship between boundaryless career orientations and employability in order to nurture both boundaryless orientations and employability, thus achieving a double dividend.

2. LITERATURE REVIEW AND HYPOTHESES

2.1. Boundaryless career orientations

Arthur and Rousseau (1996, p. 6) characterized a boundaryless career by “...independence from, rather than dependence on, traditional organizational career arrangements”. They acknowledged that individuals have substantial agency in their careers and can use this to drive a sequence of job opportunities involving different employment settings. Arthur (1994) considered that engaging in boundaryless careers means crossing a variety of, and different types of, boundaries, such as organizational, relational, hierarchical, work-life and psychological. Arthur and Rousseau (1996, p. 564) highlighted a boundaryless career to be “...a career identity that is independent of the employer [...]; the accumulation of employment-flexible knowhow[...]; and the development of networks that are independent of the firm [...], nonhierarchical [...], and worker enacted”. Sullivan and Arthur (2006) developed this concept differentiating two forms of observable mobility: physical, which is the transition across

boundaries and actual movement between jobs, firms, levels, occupations, and countries; and psychological which concerns a general attitude of transcending boundaries resulting in the capacity to move and make transitions. Despite literature has paid extensive attention to physical mobility (Sullivan & Baruch, 2009; Lazarova & Taylor, 2009), some scholars acknowledge a boundaryless career attitude to be principally psychological (e.g. Briscoe et al., 2006; Arthur, 2014).

In this context, a boundaryless career orientation (BCO) describes an individual's attitude towards and preference for pursuing a boundaryless career. As said, Briscoe et al. (2006) developed the most widely used measure of a boundaryless career orientations distinguishing two sub-dimensions: a "boundaryless mindset" (BM) and an "organizational mobility preference" (OMP). A boundaryless mindset is then an operational variable reflecting the psychological dimension of a boundaryless career. Individuals having a boundaryless mindset are enthusiastic to initiate and chase work-related relationships across organizational boundaries, are energized by new experiences and situations and pursue the acquisition of knowledge and skills and to develop their network of contacts (Lazarova & Taylor, 2009). The organizational mobility preference is the operational variable reflecting the physical mobility orientation. Individuals high on OMP have preference for changing employer while individuals low on OMP have a tendency towards organizational embeddedness, preference for job security and long-term employment (Zhao et al., 2020).

2.2. Perceived employability

At the individual level of analysis, three main approaches to employability are signaled in the psychological literature (Van Harten et al., 2017). First, the competence-based approach considers employability as a set of competences that favor the consecution of employment opportunities (Heijde & Van der Heijden, 2006); second, the dispositional approach sees employability as "a constellation of individual differences that predispose individuals to (pro)actively adapt to their work and career environments" (Fugate & Kinicki, 2008: p503); and finally, the "perceived" approach considers employability as a question in terms of how the individual views his/her possibilities of obtaining and maintaining employment (Berntson & Marklund, 2007; De Cuyper et al., 2012; Vanhercke et al., 2014). These three perspectives are valuable and have solid empirical sustenance. In this work, we focus on perceived employability as this approach is wider and potentially incorporates essential aspects of the other two perspectives (Vanhercke et al., 2014; Rodrigues et al., 2019).

Vanhercke et al. (2014) defined perceived employability (PE) as "the individual's perception of his or her possibilities of obtaining and maintaining employment" (p. 594). They signaled five important characteristics in that definition: First, it is a subjective evaluation. That implies the same objective situation is not seen in the same

way by different individuals, thus will evoke different perceptions. Second, it concerns “possibilities” of employment, what implies the integration of personal factors (age, psychological traits, skills...), structural factors (networks, labor market conditions, organizational support, unemployment...), and their interactions. Third, it is relevant for different groups on the labor market (both unemployed and employed people, graduate students...) and throughout the different career stages (exploration of the labor market, consolidation and conservation of current employment, transitions). Fourth, it denotes employment likelihood both with the current employer and with another employer, what allows the distinction between perceived internal employability and perceived external employability, respectively. External employability means the ability and willingness to change employment to another firm, while internal employability is similar, but focuses on the worker’s ability to maintain employment with his or her current employer. Fifth, it also concerns a focus upon the number of jobs available (quantitative aspect) and the type of jobs available (qualitative aspect).

These characteristics allow several underlying methodological refinements on the concept of employability and make perceived employability a very fruitful construct to advance theory and practice (Vanhercke et al., 2014).

2.3. Linking boundaryless career orientations and perceived employability

In order to argue the existence of a reciprocal relationship between boundaryless career orientation and perceived employability, we draw upon boundaryless career theory. A boundaryless career is driven by the person, not the organization, based upon individual goals, that encompass the whole life space, as well as being driven by psychological success rather than more objective success criteria such as pay, rank, or power (Arthur et al., 2005). In this sense, whether transitions are made successfully or not is not a judgement to be made by others – success and evaluation is only seen through the eyes of the career actor. Psychological or subjective career success is measured as workers' individual perceptions of their own success, based on evaluations of personal accomplishments and future prospects (Dries et al., 2008). Thus, employability has been widely consider a measure of career success and, thus, an outcome of boundaryless careers (e.g. De vos et al., 2011).

But, at the same time, the literature on careers agrees on the fact that developing employability may facilitate transitions, as employability is widely understood as a measure of easy of movement (e.g. March and Simon, 1958; De Vos et al., 2020), thus, is a crucial element in boundaryless careers (Forrier et al., 2009). Internal employability may facilitate transitions within the same company and external employability may easy transitions outside the current companies. Both perceptions of employability and transitions may re-create workers’ images of future careers, motivations and orientations (Rodrigues et al., 2013). Future career images can help individuals to create and revise their desires, hopes and visions of their ideal futures in line with their self-concepts, goals, career and

life (Strauss et al., 2011; Guan et al., 2017; Wong et al., 2020) and, thus, to redefine their career orientations as a process to get a good career-life fit (Rodrigues et al., 2013), that is an expression of subjective career success (Shockley et al., 2016). In this regard, although career orientations are relatively stable since they arise from the interaction of individual factors, family relationships, social and cultural circumstances and work experiences, they are also flexible as they may evolve over time according to the individuals' work and life conditions and settings (Rodrigues et al., 2013).

2.3.1. Boundaryless career orientations and perceived employability

Boundaryless mindset workers are energized in new experiences and situations. They look for opportunities to get involved into enriching duties, a variety of roles and work environments that provide them chances of engaging in various forms of learning and experimenting activities both within and outside the current company. These help develop new career competencies, construct new identities, build new social internal and external networks and accrue new career resources to accumulate career capital and competences that increase perceived employability (internal and external) (DeFillippi & Arthur, 1994; Arthur et al., 1995; Arthur & Rousseau, 1996; Ibarra, 1999). Boundaryless mindset employees, as proactive career developers (Wiernik et al, 2021), are more capable of identifying, creating and pursuing opportunities for self-improvement and for professional development and, in turn, of gaining employability, both within and outside their current organization (Arthur & Rousseau, 1996; Zaleska & Meneses, 2007, Sullivan & Arthur, 2006; Chen et al., 2021). Indeed, adopting a boundaryless mindset may help employees to seek and achieve opportunities, to cultivate their knowledge and to acquire new skills and capabilities that are in demand in their own company and the external market. To sum up, boundaryless mindset employees have the psychological mobility that provides them with flexibility and willingness to meet career tasks and transitions, thus, they are better equipped to navigate towards a position in the same organization or a job in a different organization that they like and that represents a good match with their needs. Those assignments likely allow them to learn something new, to stimulate personal and professional development, facilitating learning and personal growth (Schaufeli & Bakker, 2004) thereby making them more marketable and employable, both within and outside their organization (Lo Presti et al., 2018).

In this vein, a few recent studies on the association between boundaryless mindset individual and perceived employability have found a positive correlation between the two concepts (Bozionelos & Bozionelos, 2015; Lo Presti et al., 2018).

In view of these arguments, we formally hypothesize

H1a: Having BM is a positive antecedent of PIE

H1b: Having BM is a positive antecedent of PEE

On the other hand, organizational mobility preference underlines mobility through different organizations. Individuals high in organizational mobility preference are characterized by having agency in their careers that may lead them to scan the environment regularly in order to have a higher chance of identifying job opportunities that fulfill their expectations in other company (Bozionelos & Bozionelos, 2015). As OMP is negatively associated with any preference predictability and long-term employment arrangements (Briscoe et al., 2006), individuals with a high OMP will likely tend to spend less time and exert less effort on their current employer (Verbruggen, 2012), being more inclined to invest resources to seek for work opportunities elsewhere and less tending to invest resources to search for opportunities in the current company. This will induce OMP individuals to seek and exploit opportunities for improving their knowledge and acquiring new skills that are demanded by the external market rather than in the own company, so they likely tend to engage less in skills that are organization-specific, and to focus more on skills that can be used in different contexts. Further, security provided by the current organization may not be as important as otherwise expected, as to achieve job security an individual with a high OMP prefers to develop external opportunity to take control over their career across organizational boundaries (Direnzo & Greenhaus, 2011) so, they likely are more devoted to exhibit higher perceived external employability and lesser internal employability.

Accordingly, we hypothesize:

H2a: Having OMP is a negative antecedent of PIE

H2b: Having OMP is a positive antecedent of PEE

2.3.2. *Perceived employability and boundaryless career orientations*

Perceived employability is an individual's psychosocial (at the intersection of person-in-environment) career resource for coping with vocational development tasks and occupational transitions (Forrier et al., 2009; Savickas, 2013). PE covers individual factors (dispositions, competences and personal characteristics), contextual factors (environmental characteristics) and their interactions, which generate an individual's perception of the chances of obtaining or retaining a job (Vanhercke et al., 2014). Personality dispositions give PE a kind of stability, whereas other individual competences –e.g., knowledge, skills, abilities-- are more developable and the contextual situation is changeable. We argue that all these factors will affect differently the development of BM and OMP orientations.

Indeed, workers perceiving high internal employability, particularly valuable skills and abilities, likely feel confident to take on new tasks in their company that may require to learn something new and to work with different people, particularly beyond their own department. Thus, they have better opportunity to successfully making connections and developing networks and better prepared to cope with and to make transitions within the current company. Similarly, workers perceiving high external employability are able to take on new enriching tasks and to work with different people beyond their own company. They likely feel confident of participating in projects that may involve to work with many different people from across different organizations, thus, having the possibility of developing external networks. All these will nurture their boundaryless mindset orientation. Consequently, we hypothesise:

H3a: PIE is a positive antecedent of having BM.

H3b: PEE is a positive antecedent of having BM.

Internal employability connects the possibility of maintaining employment or finding another (similar or better) one with the current employer and, thus, provides the workers with career prospects (De Cuyper & De Witte, 2011). Receiving opportunities for maintaining, moving or up-warding employment in the current organization signals the employer's acknowledgement of workers' competencies, good work and potential for advancement (Nelissen et al., 2016; Benson, 2006) and management support to providing the knowledge and skills that employees need to remain employable within the organization. Therefore, employees perceiving high internal employability may interpret it as expressions of appreciation, investment and recognition by the organization, as well as a sign of employer's interest in providing internal opportunities for future advancement and to give a sense of job security. Those perceptions of internal opportunities may indicate to them they are doing well, advancing according to what it is expected of them (or better) and they are valuable resources the company wants to keep. These will likely make feel the workers that the current company is fulfilling their expectations, decreasing their preference for organizational mobility. Reciprocally, individuals perceiving low internal employability may increase their preference for mobility in order to search for a job that better allow career progression and that better fits their knowledge, skills and competences because a person's qualities shapes his or her career (Forrier et al., 2009). This suggests that people with high PIE may reveal decreasing predisposition for physical mobility, and therefore a lower OMP.

H4a: PIE is a negative antecedent of having OMP.

Employability is essential in contemporary employment to achieve job security (De Cuyper et al., 2009). Particularly, in the current turbulent context, where lifelong job security provided by the organization can no longer be guaranteed (Philippaers et al., 2016), we believe the external employability workers perceived may stimulate them to take control over their career across organizational boundaries (Direnzo & Greenhaus, 2011) in order not to intimidate chances in the external labor market (Direnzo & Greenhaus, 2011). Workers with high perceived external employability may desire not being highly engaged with their work and spend large amounts of resources on it, as it will mean to dedicate less energy for advancing and search for new career opportunities. Thus, these workers likely have more organizational mobility preference. In this sense, workers perceiving high external employability may become more self-reliant in managing their careers and in taking on the “ownership” of their career progression across organizations, leading to increased organizational mobility preference (De Cuyper et al., 2012; Vanhercke et al., 2014). The literature on this subject affirms the close connections between employability and mobility, as it is considered that the former facilitates the latter (e.g. Rodrigues et al., 2019; Forrier et al., 2015). All this suggests that people with high PEE may demonstrate an inclination for physical mobility, and therefore a higher OMP (Rodrigues et al., 2019).

Consequently, it may be hypothesized that:

H4b: PEE is a positive antecedent of having OMP.

Based on the preceding arguments:having BM will likely crystalize in a higher level of perceived (internal and external) employability. At the same time, PE (internal and external) is a career resource that will likely facilitates enriching experiences and the opportunity to work with different people, increasing BM. Thus, we posit that:

H5a: BM motivates PIE which in turn may contribute to a salient BM.

H5b: BM motivates PEE which in turn may contribute to a salient BM.

Having OMP will likely diminish PIE and stimulate PEE, that, in turn will likely contribute to a higher OMP.

Thus, we posit:

H6a: OMP motivates decreasing PIE which in turn may contribute to a salient OMP

H6b: OMP motivates PEE which in turn may contribute to a salient OMP

Figure 1 offers a graphical description of the conceptual model.

<<Insert Figure 1 over here>>

3. METHODOLOGY

3.1. Data

Data was collected from a sample of Spanish workers at two points in time using a structured questionnaire. At Time 1 (October and November, 2019), questionnaires were distributed using different social media outlets, therefore we do not have the accurate number of workers who received the questionnaire and, thus, the response rate. The questionnaire was administered following the Ethical Guidelines of the authors' University Ethical Committee regarding informed consent and anonymization. Accordingly, the questionnaire included an introductory letter explaining the purpose of the study. It emphasized that participation was voluntary and that all data was confidential and only accessible to the researchers who would use it in an aggregate manner. Workers were asked to provide an e-mail address so they might be contacted at Time 2 (January and February, 2020) and in order to link their responses in the two time points. 317 individuals responded to the call for participation and provided data at Time 1 (T1). After the records with invalid e-mail addresses and missing data were excluded, the final T1 sample consisted of 261 individuals. They were contacted three months later and invited to voluntarily participate in the follow-up. The confidential treatment of their responses was again guaranteed. Some workers refused to answer the follow-up questionnaire while other responses were removed owing to the number of items where data was missing. After these exclusions, 134 valid responses at Time 2 (T2) were eventually obtained (48,6% of drop-outs).

To determine the sample size, we used a priori power analysis for multiple linear regression with a small to medium effect size (0.10), power of 0.95, and alpha of 0.05 with 4 predictors, that suggested a sample size of 127. Accordingly, we oversampled at T1 to ensure that we will reach that sample size at T2.

To examine attrition bias, we tested if there were significant differences in variables such as gender, age, tenure, perceived employability and career orientations between drop-outs at T2 (n=127) and non-drop-outs (n=134). No differences were found in any of the variables (Table 1). In the final sample of 134 individuals, 41% of the subjects were male, with average age of 42 years, mean tenure of 12 years and 27% held a directive post.

<<Insert Table 1 over here>>

3.2. Measures

We used previously validated measures for all constructs. All items used a seven-point Likert scale ranging from "1= strongly disagree" to "7 = strongly agree".

Boundaryless mindset were measured using the 8-item BM scale from Briscoe et al. (2006). Sample items include “I enjoy working with people outside of my organization” and “I enjoy jobs that require me to interact with people in many different organizations”. Reliability for the scale was good both at T1 ($\alpha=.87$) and T2 ($\alpha=.86$).

Organizational mobility preference was measured using the 5-item OMP scale from Briscoe et al. (2006). Sample items include “If my organization provided lifetime employment, I would never desire to seek work in other organizations” (R) and “In my ideal career, I would work for only one organization” (R). Reliability for the scale was good both at T1 ($\alpha=.87$) and T2 ($\alpha=.88$).

Perceived internal employability was measured with four items from De Cuyper and De Witte’s (2011) internal quantitative and qualitative self-reported employability scales. Samples of those items are “I am optimistic that I would find another job with this employer, if I looked for one” and “I could easily switch to a better job with this employer, if I wanted to”. Reliability for the scale was good both at T1 ($\alpha=.89$) and T2 ($\alpha=.88$).

Perceived external employability was measured with four items from De Cuyper and De Witte’s (2011) external quantitative and qualitative self-reported employability scales. Samples of those items are “I am optimistic that I would find another job elsewhere, if I looked for one” and “I could easily switch to a better job elsewhere, if I wanted to”. Reliability for this scale was very good at T1 (Cronbach’s $\alpha=.95$) and T2 ($\alpha=.91$).

Control Variables: The variables of gender (1=male, 0=female), age, tenure in the current company (in years) and position (directive=1, operative=0) were used as controls because of their influence on perceived employability and career orientations (Rodrigues et al., 2015).

3.3. Analyses

The use of longitudinal data usually reduces the possibility of common method bias. Nonetheless, a Harman’s one factor test (an un-rotated factor analysis on all items used in the model) was conducted to ensure that this was the case. The analysis showed that explained variance by the first factor was less than half of total variance (30.26% at T1 and 28.39% at T2); thus, common method bias is unlikely to be a risk.

First, several Confirmatory Factor Analyses (CFA) were conducted to assess the adequacy of the scales both at T1 and T2 and to ensure measurement invariance. Then, to test and estimate the conceptual model, data were analyzed by means of structural equation modeling (SEM) using AMOS version 20. Cross-lagged longitudinal analyses were used, where boundaryless career orientations and perceived employability at T2 were controlled by the corresponding constructs at T1. Thus, the following parameters were included in the model: covariance among the constructs at the same time point; covariance between error terms of each indicator at T1 and the corresponding

indicator at T2; constructs at T1 to control for baseline levels for each variable at T2; and cross-lagged relationships to test the hypotheses (Guan et al., 2017, Redondo et al., 2022).

4. RESULTS

Mean, standard deviation, and correlations of control variables and constructs in the model at T1 and T2 are shown in Table 2. The level of BM (over 5 out of 7) is higher than the corresponding level of OMP (under 4 out of 7). However, the levels of PIE and PEE are similar and slightly above 4 out of 7, both in T1 and T2. With regard to the variables in the models, the strongest correlations were, as expected, between variables at T1 and T2, but there were also significant correlations between many of them. With regard to control variables, as expected, age and tenure were highly and significantly correlated to the main variables in the models.

<<Insert Table 2 over here>>

Regarding the adequacy of the scales used, reliability and convergent and discriminant validity were tested for each construct separately (Anderson and Gerbin, 1988; Tatoglu et al., 2016). Reliability was high ($\alpha > 0.8$) for all of them. Standardized regression weights (SWR) mostly greater than 0.5 and good fit measures as well as all AVE values equal to or greater than 0.5 awarded convergent validity (see Table 3 and 4, for detailed results).

<<Insert Table 3 over here>>

<<Insert Table 4 over here>>

To evaluate discriminant validity at T1 and T2, we compared the four-construct measurement models (BM, OMP, PIE, and PEE loading on different factors) with a series of alternative nested models in which different factors were loaded on a single one. The four-factor models fitted the data significantly better than the alternative models both at T1 and T2, awarding the discriminant validity of the four constructs at both time points (Table 5).

<<Insert Table 5 over here>>

We assessed measurement invariance by conducting multigroup analysis in the measurement model. In the unconstrained model the SRW was freely estimated for each time point ($\chi^2 (360) = 614.041$). Subsequently, this model was tested against the constrained model, where all regression weights were set to be equal for T1 and T2 ($\chi^2 (377) = 630.227$). Models were compared by a chi square test, where non-significant deterioration in model fit ($\Delta\chi^2 = 16.168$; $\Delta df = 17$; $p\text{-val.} = .511$) supported measurement invariance (Redondo et al., 2020).

We then ran the structural model adding control variables. As none of them was statistically significant, they were removed for a more parsimonious model. We re-ran the model, which yielded estimates in Table 6 and good fit measures ($\chi^2(770)=1196.199$; IFI=.902; TLI=.888; CFI=.900; SRMR=.080). In the model, the relationships between constructs at T1 to control for baseline levels for each variable at T2 were positive and highly significant, as expected, showing that baseline levels are very good predictors of follow-up levels in all the variables. Apart from the relationships controlling for lag effects, the significant (and positive, as expected) relationship linking BCO to PE were $BM(T1) \rightarrow PEE(T2)$ and $OMP(T1) \rightarrow PEE(T2)$, although the latter only at certain levels.

These results confirm H1b and H2b and show that BM are significant antecedents of PEE but not of PIE. Regarding the links between PE and BCO, the only significant (and positive, as expected) relationship was $PEE(T1) \rightarrow OMP(T2)$, suggesting that PEE is a significant antecedent of one of the sub-dimensions of BCO, thus, confirming H4b.

Accordingly, our results suggest the existence of a reciprocal relationship between having OMP and PEE and a unidirectional relationship between having a BM as antecedent of PEE.

<<Insert Table 6 over here>>

5. DISCUSSION

Drawing from Boundaryless Career Theory, this paper defended a reciprocal relationship between boundaryless career orientations and perceived employability. Boundaryless career orientations reflect a willingness to meet career tasks and transitions that may lead to higher employability. At the same time, perceived employability is a career resource which enables the shaping of one's career for a better adaptation between the career, and working and life circumstances in order to get a better career-life fit, that is a measure of subjective success, pursued in a boundaryless career. We tested our hypotheses by using a time-lag structural model tested on longitudinal data collected three months apart in which we made two refinements by considering the two underlying dimensions of a boundaryless career orientation (boundaryless mindset and organizational mobility preference), and perceived internal as well as external employability, in order to disentangling the relationships and the dynamics between a boundaryless career and employability.

Our findings make a number of important contributions to the literature on both employability and career development and provide significant information for practitioners and counselors. First, they suggest the existence of different directionalities in the relationships between the two concepts: having OMP is reciprocally related to PEE, therefore in career-building, employability and mobility preference help shape and reshape each other.

However, having a BM is an antecedent of PEE but our “short-term” data does not support the corresponding reverse causation. Second, the need to differentiate between PIE and PEE: none of the relationships between BCO and PIE, regardless of the direction, were significant. Accordingly, although literature notes that the boundaryless career concept is also related to internal movements and to the crossing of boundaries within the current company, it looks like the differential effect of this orientation is located in the higher perception of the capacity and possibilities for transitions across external boundaries. Third, our results are in line with Wiernik and Kostal (2019) and Redondo et al. (2021) who suggest that there are important differences between the two underlying dimensions of a BCO. In light of our results, as we will discuss, it seems that having a BM is more linked to long-standing factors, and therefore is more stable than having OMP, which seems to be more related to short-term factors and is thus more flexible.

As mentioned, the role of BCO as an antecedent of PE is confirmed for external but not for internal employability, and for both sub-dimensions of a boundaryless career. We posited that people possessing these orientations have high adaptivity and tend to develop resources and engage in career-related activities for employability. Different plausible explanations may be offered from this finding. First, following Arthur (1994, p. 296), boundaryless orientations are highly “sustained by extra-organizational networks or information”. Thus, boundaryless workers may emphasize the working environment beyond the current organization rather than just within the current one, and they may be more involved in search behaviors (McArdle et al., 2007; Verbruggen, 2012), and therefore affect the perception of external employability to a greater extent. Second, by conceiving their career as a path that also leads outside organizational boundaries, boundaryless workers may engage on competences and skills that may be used in different contexts rather than on competences and skills that are more limited to the current organization (Cortellazzo et al., 2020). Third, although career self-management training programs may seem beneficial for companies, their effective implementation is difficult and therefore companies may develop compulsory training and development programs (Kossek et al., 1998), devoted to increasing the organization-specific capabilities and skills of their workers. If this is the case, then it would seem reasonable that having a boundaryless orientation does not make a differential impact on the perception of internal employability.

Regarding the role of PE as an antecedent of BCO, this is only confirmed for PEE and the sub-dimension OMP. In line with Rodrigues et al. (2019), it appears that PEE is a pre-requisite or needed resource for mobility preference, as the preference for a career across organizations as a means to adapt career and work and life circumstances requires a certain degree of confidence regarding one’s chances of getting a meaningful job outside the current company. Conversely, individuals with lower perceptions of external employability will place greater

focus on security, predictability and safety within the current organization and will be less inclined towards mobility. As long as the individuals feel they have a chance of achieving new employment in the external labor market, their preference for mobility is likely to increase.

However, PEE does not seem to impact having a BM, at least in the short term. It appears that characteristics such as enjoying working with people outside the organization, enjoying jobs that require interaction with people in many different organizations, feeling energized from new experiences and situations, are not nurtured in the short-term by PEE.

The literature states that career orientations are stable career preferences at the intersection of individual factors such as dispositions, family relationships, education, work experiences, and contextual factors such as social background and labor market circumstances (Rodrigues et al., 2013, Rodrigues et al., 2019). In light of our results, although we have not specifically tested for it, it appears that the possession of a boundaryless mindset may be more linked to long-term or stable factors such as changing family circumstances, fulfilling career drives, acquiring different working experiences or personal dispositions (Wiernik & Kostal, 2019), while organizational mobility preference may be closer related to short-term and contextual factors rather than dispositional factors and personality. As mentioned, the perceptions of employability have to do with more and less stable factors (Vanherke et al., 2014; De Cuyper et al., 2012). Accordingly, an increase of perceived employability will more likely be provoked by those less stable factors --e.g. organization support for increasing skill and competences, the improvement of market conditions, economic prosperity-- (Berntson & Marklund, 2007) rather than by a change on the individual's dispositions. That increase in perceived external employability likely would not make a short-term impact on the boundaryless mindset level of the corresponding worker, but would likely enhance his/her inclination for mobility preference. In line with this reasoning, we can speculate that having mobility preference may be more linked to short-term factors, working conditions and/or labor market circumstances, thus, more flexible and more context-dependent. The fact that correlations between having mobility preference and traits and dispositions found by Wiernik and Kostal (2019) were non-significant in many cases may support this explanation. This study also has important practical implications for managers and career professionals. The main implication for managers is that all BCO patterns are associated with increasing perceptions of external employability, but not with internal employability. This fact may pose a challenge for organizations in their efforts to retain those workers, which becomes particularly intense in the case of employees with mobility preference, as this orientation is also nurtured in the short-term by higher perceptions of external employability. In this situation, a good strategy for organizations might be to develop activities and policies aimed at making boundaryless workers perceive

themselves as more internally employable. According to this, organizational career management may favor growth and development associated with boundaryless careers within the organization in order to make workers experience a variety of positive job attitudes and experiences related to goals and internal possibilities of development that make them stay. Additionally, our study points to the need for a diversified management of the different profiles underlying a boundaryless career. If career construction is a process by which individuals build a career and design their life, and where shaping career orientation is a way of adapting to work and life circumstances, managers must aid workers in this process to make them healthy, productive, happy and employable (De Vos et al., 2020). Helping workers to achieve career-life integration within the current organization may be the best retention strategy.

For career professionals, our results point to the supporting of boundaryless orientations for developing and maintaining employability as a means to navigate the contextual dynamism of current business scenarios and to support careers (Rodrigues et al., 2019). Taking the importance of social networks and accruing career capital into account may be a good way to achieve it.

No study goes without limitations. Firstly, the time lag in our data was three months, and, accordingly, we have only been able to discern short-term effects between our focal constructs. However, we have advocated that certain processes with regard to the impact of employability on career orientations may be long-term and, thus may take longer than three months to be visible. In this case, further study on the mid and long-term effects of employability on career orientations is required. Secondly, although the sample size is larger than the ones used in other longitudinal studies in this field (e.g. Cortellazzo et al., 2020) and we have checked that attrition is unlikely to have biased our results, similar studies that use larger samples with smaller attrition would help to generalize our results. Finally, we have tested our hypotheses on Spanish workers, thus, a Latin population. Given that some authors have suggested that cultural differences may influence career attitudes, further studies in other cultures and/or countries would be a welcome addition to the literature on this topic.

6. CONCLUSION

Our study on reciprocal relationships between boundaryless career orientations and perceived employability has shown that, although literature notes that the boundaryless career concept is also related to internal movements and to the crossing of boundaries within the current company, the differential effect of this orientation has to do with the higher perception of the capacity and possibilities for transitions across *external* boundaries. In fact, all the patterns of a boundaryless orientation are associated with increasing perceptions of external employability, but not with internal, what may pose a challenge to organizations in order to retain those workers.

Additionally, our results show different links between perceived external employability and boundaryless career depending of the pattern of the orientation. A reciprocal relationship between having organizational mobility preference and perceived external employability is supported. However, having a boundaryless mindset seems to be an antecedent of external employability but the corresponding reverse causation is not (short-time) supported. Indeed, individuals with organizational mobility preference evidence having reciprocal short-term relationships to perceived external employability, signaling that having higher mobility preference is linked to higher perceptions of employability and vice-versa, as perceptions of external employability seem to be a requisite to develop a boundaryless careers. Thus, in career-building, employability and mobility preference help shape and reshape each other. However, having a boundaryless mindset is an antecedent of external employability but it does not seem that external employability is a short-term cause of having a boundaryless mindset orientation. It looks like this orientation may be more linked to long-term or stable factors such as changing family circumstances, fulfilling career drives, acquiring different working experiences or personal dispositions, that may take longer to be achieved.

Accordingly, our work suggest the need to differently manage and counsel the different patterns of a boundaryless career. As likely based on long-standing factors, a boundaryless mindset appears to be a more stable orientation than having organizational mobility preference, that seems to be sustained on more changeable factors and thus, appears to be more flexible.

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Figures y Tables

Figure 1. Conceptual model

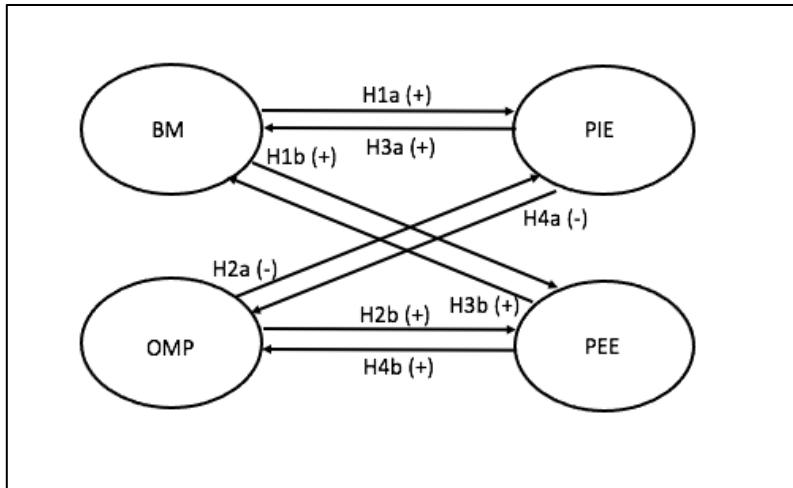


Table 1. Attrition bias test results

	Drop-outs (N=127)		Non drop-outs (N=134)		ANOVA p-val
	Mean	Std. Dev.	Mean	Std. Dev.	
Gender (male)	0.465	0.501	0.403	0.492	0.317
Age	42.039	12.147	41.567	14.060	0.772
Tenure	11.456	10.615	12.475	12.512	0.482
Directive	0.276	0.449	0.269	0.445	0.900
Boundaryless mindset	5.059	1.233	5.184	1.113	0.391
Organizational mobility preference	4.093	1.576	3.954	1.573	0.476
Perceived internal employability	4.026	1.538	4.162	1.590	0.481
Perceived external employability	4.309	1.452	4.252	1.731	0.773

Table 2. Descriptive statistics. Cronbach's alpha in brackets

	Mean	Std. Dev.	Correlations												
			1	2	3	4	5	6	7	8	9	10	11		
1. BM (T1)	5.184	1.113	(0.87)												
2. OMP (T1)	3.954	1.573	0.346**	(0.87)											
3. PIE (T1)	4.162	1.590	0.185*	-0.129	(0.89)										
4. PEE (T1)	4.252	1.731	0.282**	0.209*	0.365**	(0.95)									
5. BM (T2)	5.341	0.950	0.546**	0.298**	0.079	0.158	(0.86)								
6. OMP (T2)	3.935	1.446	0.323**	0.678**	-0.111	0.290**	0.255**	(0.88)							
7. PIE (T2)	4.044	1.527	0.152	-0.029	0.534**	0.243**	0.133	-0.131	(0.88)						
8. PEE (T2)	4.292	1.434	0.348**	0.299**	0.238**	0.627**	0.368**	0.279**	0.153	(0.91)					
9. Gender (male)	0.403	0.492	0.131	0.063	0.062	0.041	0.034	0.096	0.167	0.040					
10. Age	41.567	14.060	-0.124	-0.278**	-0.199*	-0.484**	0.008	-0.307**	-0.042	-0.361**	-0.018				
11. Tenure	12.475	12.512	-0.089	-0.405**	0.005	-0.494**	-0.091	-0.405**	0.064	-0.362**	0.059	0.702**			
12. Position (directive)	0.269	0.445	0.169	0.042	0.004	-0.132	0.199*	0.016	0.124	-0.073	0.154	0.253**	0.120		

*, ** Statistically significant at the 5 and 1% levels, correspondingly

Table 3. Standardized regression weights (CFA)

			Estimate (T1)	Estimate (T2)
BM_1	□	BM	0.820	0.851
BM_2	□	BM	0.859	0.848
BM_3	□	BM	0.813	0.806
BM_4	□	BM	0.747	0.680
BM_5	□	BM	0.851	0.801
BM_6	□	BM	0.461	0.279
BM_7	□	BM	0.480	0.686
BM_8	□	BM	0.351	0.493
OMP_1	□	OMP	0.764	0.753
OMP_2	□	OMP	0.646	0.764
OMP_3	□	OMP	0.732	0.665
OMP_4	□	OMP	0.868	0.805
OMP_5	□	OMP	0.798	0.873
PEE_1	□	PEE	0.886	0.835
PEE_2	□	PEE	0.948	0.816
PEE_3	□	PEE	0.951	0.946
PEE_4	□	PEE	0.953	0.844
PIE_1	□	PIE	0.829	0.793
PIE_2	□	PIE	0.773	0.765
PIE_3	□	PIE	0.873	0.880
PIE_4	□	PIE	0.826	0.788

Table 4. CFA quality indices for constructs

	Time (T1)						Time (T2)					
	Chi (df)	IFI	TLI	CFI	SRMR	AVE	Chi (df)	IFI	TLI	CFI	SRMR	AVE
BM	52.509 (20)	0.939	0.913	0.938	0.060	0.500	77.979 (20)	0.896	0.853	0.895	0.074	0.500
OMP	15.505 (5)	0.968	0.935	0.968	0.036	0.585	11.94 (5)	0.980	0.959	0.979	0.030	0.661
PEE	10.361 (2)	0.988	0.963	0.988	0.011	0.874	7.187 (2)	0.987	0.961	0.987	0.020	0.594
PIE	35.583 (2)	0.903	0.705	0.902	0.031	0.545	17.212 (2)	0.949	0.844	0.948	0.037	0.521

Table 5. Nested model comparison. Discriminant validity

	chi	df	chi/df	IFI	TLI	CFI	RMSEA	Description	dif Chi	Dif df	p-val
N1 (T1)	1444.527	186	7.766	0.378	0.290	0.371	0.226	1-construct model: (BM+OPM+PIE+PEE)	1154.383	6	0.000
N2 (T1)	806.474	186	4.336	0.693	0.650	0.690	0.158	2-constructs model: (BM+OPM)--(PIE+PEE)	516.330	6	0.000
N3 (T1)	571.241	184	3.105	0.809	0.779	0.806	0.126	3-constructs model: (BM)--(OPM)--(PIE+PEE)	281.097	4	0.000
Measurement model (T1)	290.144	180	1.612	0.945	0.936	0.945	0.068	4-constructs model: (BM)--(OPM)--(PIE)--(PEE)	Reference for comparison		
N1 (T2)	1221.014	186	6.565	0.402	0.316	0.394	0.205	1-construct model: (BM+OPM+PIE+PEE)	897.087	6	0.000
N2 (T2)	863.286	186	4.641	0.609	0.552	0.603	0.165	2-constructs model: (BM+OPM)--(PIE+PEE)	539.359	6	0.000
N3 (T2)	577.184	184	3.137	0.773	0.737	0.779	0.127	3-constructs model: (BM)--(OPM)--(PIE+PEE)	253.257	4	0.000
Measurement model (T2)	323.927	180	1.800	0.917	0.902	0.916	0.078	4-constructs model: (BM)--(OPM)--(PIE)--(PEE)	Reference for comparison		

Table 6. Standardized estimates. P-values in brackets

		Estimates	
BM (T1)	□	BM(T2)	0.569 (0.000)
OMP(T1)	□	OMP(T2)	0.664 (0.000)
PIE(T1)	□	PIE(T2)	0.539 (0.000)
PEE(T1)	□	PEE(T2)	0.566 (0.000)
BM(T1)	□	PIE(T2)	0.104 (0.226)
BM(T1)	□	PEE(T2)	0.160 (0.046)
OMP(T1)	□	PIE(T2)	0.010 (0.905)
OMP(T1)	□	PEE(T2)	0.143 (0.070)
PIE(T1)	□	BM(T2)	-0.010 (0.905)
PIE(T1)	□	OMP(T2)	-0.087 (0.216)
PEE(T1)	□	BM(T2)	-0.056 (0.521)
PEE(T1)	□	OMP(T2)	0.208 (0.005)