Greta Mazzetti, Chiara Lancioni, Eva Derous, Dina Guglielmi

Tackling job insecurity: Can a boundaryless career orientation boost job crafting strategies and career competencies?

Ente di afferenza:
Università di Bologna (unibo)

Tackling job insecurity: Can a boundaryless career orientation boost job crafting strategies and career competencies?

Greta Mazzetti, Chiara Lancioni, Eva Derous, Dina Guglielmi

The present study was aimed at investigating the mediating role played by job crafting and career competencies (i.e., knowing why, knowing how, and knowing whom) within the negative relation between boundaryless career orientation and job insecurity. A sample of 267 Italian employees fulfilled an online self-report questionnaire. Results of bootstrapping models with multiple mediators operating in serial indicated that boundaryless career orientation was negatively related to job insecurity through the subsequent mediation first of job crafting, and then of career competencies. This study provided support for the hypothesized relevance of training interventions focusing on the enhancement of a boundaryless perspective and job crafting strategies among HR best practices.

The growing dynamism of the labour market in the last decade has resulted in drastic changes for companies and employees. These changes consist of an increased organizational and productive flexibility, new strategies for managing human capital and, consequently, a breakup of traditional expectations between organizations and individuals. One of the main consequences is a greater effort to find opportunities to acquire competencies and skills in one's current job, in order to cope efficiently with the uncertainty of the labour market and to increase the perceived chance to obtain an alternative job in the future (Akkermans & Tims, 2017). Whereas organizations can hardly guarantee the security of a long-life occupation, employees are gradually experiencing additional forms of adaptability that allow them to cope with growing job insecurity (Kiazad, Seibert & Kraimer, 2014).

Adaptability is no longer limited to one's work role, it also entails career paths that develop increasingly beyond the boundaries of single organizations (Greenhaus, Callanan & DiRenzo, 2008). Boundaryless careers diverge from traditional professional paths in terms of inter- and intra-organizational mobility, and they also imply a personal tendency to pursue opportunities for acquiring additional competencies and skills within one's job (Arthur & Rousseau, 1996). Accordingly, a boundaryless orientation allows employees to experience their current job by focus-

ing on the attainment of higher employability, rather than a greater job security that cannot realistically be reached in the current scenario.

The concept of boundaryless career has been developed to describe the proliferation of dynamic and flexible career paths aimed at satisfying organizations' need for flexibility, and to describe employees' increasing necessity to be highly competitive through the acquisition of new skills which foster their employability outside organizational boundaries (Reyneri, 2017; McArdle, Waters, Briscoe & Hall, 2007). Under the umbrella of boundaryless careers, two separate meanings are actually included: on the one hand, the boundaryless career path involves physical mobility; on the other hand, a boundaryless career orientation involves a psychological mobility, essentially related to individual predilections, mind openness and the desire to build a career both in and out organizational boundaries (Gubler, Arnold & Coombs, 2014). In line with this definition, boundaryless career orientation does not require a physical mobility, but is characterized by the predilection for occupational, inter-organizational, and geographical mobility; the perception of independence from the current organization; the tendency to develop and maintain a professional network outside one's own organization; and the belief that one's career path disregards any contractual and/or structural boundary imposed by the current job and organization.

For the most part, research on boundarylessness has focused on boundaryless career paths conceived as a form of inter-organizational mobility. In contrast, research on boundaryless career orientation is still lacking. In order to fill this gap, the current study is focused on the conception of boundaryless career orientation as the individual preference for all situations that allow to execute one's work tasks across multiple organizations (Briscoe, Hall & DeMuth, 2006).

1. A model for boundarylessness

The definition of boundaryless career orientation emphasizes the roles of aspects such as preferences, attitudes, and orientations rather than actual behaviors. Accordingly, Greenhaus and colleagues (2008) coined the label of «boundaryless perspective» in order to describe the combination of a boundaryless mindset with the tendency to search for job resources and opportunities of development inside and outside organizations. The conceptual model developed by these authors was aimed at embracing the various features of boundarylessness by considering the following key-components:

1. A protean career orientation, defined as the individual tendency toward a self-directed management of career path, through autonomous and self-valued decisions, in line with personality and individual goals (Briscoe & Hall, 2006);

2. The three career competencies of *knowing why*, *knowing how*, *knowing whom*;

Greta Mazzetti, Chiara Lancioni, Eva Derous, Dina Guglielmi

3. Mobility patterns that result from the combination of organizational conditions and personal and family characteristics (e.g., inter-organizational mobility, non-hierarchical mobility within the organization), also including job crafting.

Consistent with the theoretical framework depicted by this model, the current study focused on boundaryless career orientation as a personal resource able to increase employees' tendency to shape their job through job crafting, conceived as a specific kind of mobility pattern that departs from traditional organizational career arrangements. The term «job crafting» covers a range of strategies applied by employees with the main aim of modifying various aspects of their job, in order to meet their needs, preferences and capabilities better in a sort of bottom-up job design (Tims, Bakker & Derks, 2013). Thus, job crafting entails a personal and autonomous initiative, not specifically aimed at increasing the effectiveness of employees' job performance, but at creating more stimulating conditions of person-job fit (Demerouti & Bakker, 2014). In particular, Tims and colleagues (2012) identified four strategies as core components of job crafting: *seeking structural job resources* (e.g., variety, autonomy, and possibilities of professional development on the job); *seeking social job resources* (e.g., asking for feedback from colleagues and/or supervisor, and building important professional relationships at work); *decreasing hindering job demands* (e.g., reducing ambiguity or role conflict that are barriers to personal growth and goal achievement); *seeking challenging job demands* (e.g., exploring new work projects to develop, and job challenges that may imply a professional and personal growth).

The model of boundarylessness, in addition, indicates that job crafting is reciprocally related to career competencies. Hence, employees craft their job through the adjustment of task and relational boundaries in order to create their own work identity and their own opportunity to develop professional competencies (Quigley & Tymon, 2006). Career competencies include specific skills developed within one's past and present job, that could become transversal to multiple career paths and transferable between jobs when strengthened by an employee's own expertise (DeFillippi & Arthur, 1996).

In line with this definition, the model under investigation focused on three types of career competencies, as defined by Colakoglu (2006):

1. *Knowing Why competencies* (i.e., employees' knowledge of their motives, needs, abilities, interests, aspirations, and values related to work experience);

2. *Knowing How competencies* (i.e., job-knowledge, skills and abilities gathered through education, professional experiences and organizational memberships that are flexible and transferable across multiple jobs and work settings);

3. *Knowing Whom competencies* (i.e., employees' career networks that provide information, influence, guidance, and support which can increase career development and mobility).

Early empirical evidence suggested that job crafting strategies are implemented in order to acquire further skills and competencies that, in turn, can improve

employees' perception of employability and reduce the perceived level of uncertainty (Lu, Wang, Lu, Du & Bakker, 2014). Hence, crafting one's job is particularly relevant for improving the person-job fit in those conditions characterized by high job insecurity. Consistent with these results, job crafting strategies have been identified as a mediator in the positive relationship between career competencies and both internal and external perceived employability (Akkermans & Tims, 2017).

On the whole, these findings supported the association between the orientation toward the implementation of job crafting strategies and the development of career competencies. In addition, they indicate job crafting strategies as a tool that allows employees to shape their own job and career in a boundaryless perspective, thus enhancing their likelihood of gaining employment and, consistently, decreasing the perceived level of job insecurity.

During the last decade, the unpredictability of the economic scenario and the rising competitiveness of the labour market resulted in a corresponding intensification of employees' perception of job insecurity, with an increased fear of losing one's job and meeting adversities in finding a new one (Sverke, Hellgren & Näswall, 2002). The perception of a great level of employability has been recognized as a job resource that can be fostered through personal development and learning strategies which, in turn, can buffer the negative impact of job insecurity (Green, 2011). To be specific, employability has been conceptualized as a new form of job security experienced by individuals facing the contemporary labour market, since it implies a sense of control over one's career (Fugate, Kinicki & Ashforth, 2004) stemming from their perceived chance to find a new job in the external labour market (Berntson & Marklund, 2007). In line with the definition of employability as an expression of job security, the present study was aimed at developing the theoretical contribution offered by Akkermans and Tims (2017) and Green (2011) by considering the perception of a lower job insecurity as an outcome of the implementation of job crafting strategies and the subsequent gain of advanced career competencies. In line with previous results (De Witte, Vander Elst & De Cuyper, 2015), the enhancement of the pool of competencies over one's career (i.e., knowing why, knowing whom and knowing how competencies) is expected to show a positive relationship with employees' confidence in their ability to cope with the mutable work environment both inside and outside the organization, and with the perceived chance of finding alternative job opportunities. Consistently, it can be assumed that these competencies are negatively associated with job insecurity. A graphical illustration of the hypothesized relationships is reported in Figure 1.

From a broader perspective, these assumptions are consistent with empirical findings suggesting that a boundaryless career perspective implies a greater level of responsibility for one's career development, thus resulting in a proactive and self-reliant attitude in fostering one's career competencies and, in turn, reduce the experienced feelings of insecurity (Colakoglu, 2011).
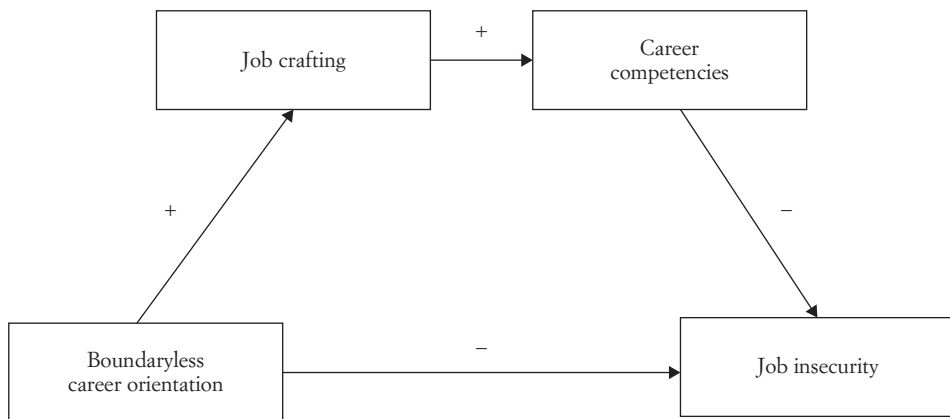
FIG. 1. *The hypothesized serial mediation model.*

Note: Control variable (job contract) was omitted for reasons of clarity. Career competencies (i.e., knowing why, knowing how, knowing whom) were tested separately for each serial mediation model.

2. Aims and hypotheses

Based on the theoretical perspectives and empirical results previously discussed, the present research was aimed at contributing to the existing literature on boundaryless career orientation and job crafting: research on the relationship between these constructs is far from being exhaustive, although they share some key features.

Indeed, they both entail employees' strategies to adapt to a changing work environment: a boundaryless career allows individuals to realize a better person-career fit within the unpredictability of the labour market (Colakoglu, 2006), whereas job crafting may enhance person-job fit through the adjustment of several aspects of one's job (Lu et al., 2014). Furthermore, they both imply a boundaryless perspective that enables to overtake any physical, relational and psychological boundary pertaining to one's organization and job. Thus, this orientation is conceived as an individual attitude which can drive employees to modify their job in order to acquire additional career competencies (i.e., *knowing why*, *knowing how* and *knowing whom* competencies) that could be positively related to their perception of being marketable in the labour market and, accordingly, reduce their job insecurity. Accordingly, the current study was designed to explore the relationships between boundaryless career orientation, job crafting and career competencies through a further investigation of their association with job insecurity.

In line with the model developed by Greenhaus and colleagues (2008), three distinct indirect relationships were tested.

We predicted that job crafting (as first mediator) and *knowing why* competencies (as second mediator) sequentially mediate the negative relationship between boundaryless career orientation and job insecurity (*Hypothesis 1*).

We also expected that boundaryless career orientation would be negatively related to job insecurity through the subsequent mediation first of job crafting, and then of *knowing how* competencies (*Hypothesis 2*).

The third hypothesis postulated that the negative association between boundaryless career orientation and job insecurity would be explained by the mediation of job crafting and *knowing whom* competencies (*Hypothesis 3*).

3. Method

3.1. Procedure

Data were collected on respondents from multiple organizations who completed an online questionnaire as a part of an occupational health survey. These employees were invited to follow a link that allowed them to complete the questionnaire. The first page of the survey provided information about the scientific research purpose of the study, the guarantee of confidentiality and anonymity on personal data collecting, as well as processing and instructions for answering questions.

3.2. Participants

The sample was composed of 267 employees (43% of men and 57% women) belonging to different professional sectors and positions. The mean age was 34.31 years (*SD* = 8.55). Concerning the educational level, 64.5% held a university degree, 19.6% had a post-graduate degree, and 23.1% had a secondary education. Regarding the work role, the majority of the sample was composed of employees (77.8%), supervisors (15.7%), and managers (6.4%). The respondents belonged to different work sectors: consultant organizations (13.9%), service industry (10.9%), trade sector (9.8%), public administration (8.6%), tourism sector (2.3%) and construction industry (0.8%). Most of the sample had a permanent job (72.6%) and worked full-time (79%) and the mean job tenure was 8.59 years (*SD* = 7.28).

3.3. Measures

Boundaryless career orientation was measured with the Boundaryless Career Attitude Scale (Briscoe et al., 2006; Italian version: Lo Presti, Nonnis & Briscoe, 2011). This scale consisted of two subscales. The first subscale refers to *boundaryless mindset* and includes eight items aimed at evaluating the general attitude toward working outside organizational boundaries. A sample item is: «I enjoy job assignments that require me to work outside of the organization». The subscale of *organizational*

Greta Mazzetti, Chiara Lancioni, Eva Derous, Dina Guglielmi

mobility preference includes five reverse-scored items that examine employees' preference for working in the same organization during their whole career. A sample item is: «In my ideal career, I would work for only one organization». Respondents had to indicate their level of agreement with each item, using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Job insecurity was assessed with the Italian version of the five-items scale developed by Chirumbolo and Hellgren (2003). A sample item is: «I fear I will lose my job». All items were scored on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The English version was back translated into Italian according to the translation/back-translation procedure recommended by Brislin and colleagues (1973).

Job crafting was measured using the scale by Tims and colleagues (2012; Italian version: Cenciotti et al., 2016). This questionnaire is composed of four sub-scales corresponding to the four crafting strategies: *increasing structural job resources*; *decreasing hindering job demands*; *increasing social job resources*; *increasing challenging job demands*. The questionnaire includes 21 items (e.g. «If there are new developments, I am one of the first to learn about them and try them out») rated on a 5-points frequency scale ranging from 1 (*never*) to 5 (*always*).

Knowing Why Competencies were assessed with the ten-item scale developed by Colakoglu (2006) that measures how much individuals understand and know about their career interests, abilities, potential, strengths and weaknesses (e.g., «I am quite clear on what my shortcomings and limitations are»). Respondents reported their level of agreement with each item using a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Knowing How Competencies were measured with the six-item scale (Colakoglu, 2006) aimed at assessing to what extent one's work-related skills, knowledge and understanding are broad and transferrable to different employment possibilities (e.g., «I seek out opportunities for continuous learning in my career»). Responses were given using a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Knowing Whom Competencies were assessed with the with the eleven-item scale (Colakoglu, 2006), that measures how much one's networks are widespread, both inside and outside organizational networks (e.g., «I have a wide network of relationships with individuals from different civic and social groups, clubs, and organizations»). Responses ranged on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

For this study, an Italian version of the three scales assessing the career competencies (i.e., *knowing why*, *knowing how*, *knowing whom*) was developed following the translation/back-translation procedure (Brislin et al., 1973).

The *type of contract* (1 = fixed-term) was included as a possible confounding variable on the basis of previous evidence (De Witte & Naswall, 2003).

3.4. Strategy of analysis

The mediation hypotheses were tested using the bootstrapping procedure that tested the indirect relationship using an analytic approach that overcomes some limitations associated with the Sobel test (Preacher & Hayes, 2004). The Sobel test relies on two assumptions: *a*) the distribution of *ab* – i.e. the product of X → M (path *a*) and of M → Y (path *b*) – is normal; and *b*) the sample size is large. If these two assumptions are not satisfied, the Sobel test is less reliable. In contrast, the bootstrapping procedure can be applied also with non-normal distribution and limited sample size.

To test the hypothesized indirect relationships, all the paths coefficients were estimated simultaneously using Hayes' (2013) SPSS macro Process (Model 6 for serial mediation) with 95% bias corrected confidence interval based on 5,000 bootstrap samples. As previously stated, the type of contract was included as covariate.

4. Results

4.1. Descriptive

The means, standard deviations, correlations and internal consistencies for all study variables are presented in Table 1. All significant relationships between the variables were in the expected direction. Internal consistencies of the scales ranged from $\alpha = .70$ to $\alpha = .83$. These values were consistent with the criterion of 0.70, which is traditionally considered as a rule of thumb (Santos, 1999).

4.2. Model testing

Hypothesis 1 proposed that job crafting and knowing why competencies sequentially mediate the negative relationship between boundaryless career orientation and job insecurity. Table 2 provides estimate of all path coefficients as well as the indirect relationships along with 95% bias-corrected bootstrapped confidence intervals for all the paths.

As hypothesized, boundaryless career orientation was negatively associated to job insecurity ($B = -.31$; $p < .001$). Furthermore, results showed that knowing why competencies do not mediate the relationship between boundaryless career orientation and job insecurity ($B = -.02$; 95%CI = –.08; .02), in line with the correlation coefficients reported in Table 1. In contrast, boundaryless career orientation showed an indirect relation with job insecurity through job crafting ($B = .05$; 95%CI = .02; .11). Finally, job crafting and knowing why competencies sequentially mediated the relationship between boundaryless career orientation and job insecurity ($B = -.01$; 95%CI = –.04; –.01. These results supported *Hypothesis 1*.

TAB. 1. *Means, standard deviations, reliability coefficients (on the diagonal), and correlations between the study variables (N = 267)*

	M	SD	1	2	3	4	5	6	7
1. Job contract (1 = fixed-term)	.35	.48	na						
2. Boundaryless career orientation	3.56	.57	.02	(.81)					
3. Job crafting	3.40	.34	.09	.22**	(.70)				
4. Knowing why competencies	3.84	.56	−.25**	.08	.17**	(.83)			
5. Knowing how competencies	3.95	.57	−.11	.35**	.39**	.49**	(.80)		
6. Knowing whom competencies	3.74	.54	−.13*	.18**	.21**	.42**	.36**	(.77)	
7. Job insecurity	2.25	.84	.24**	−.21**	.07	−.30**	−.20**	−.24**	(.82)

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

TAB. 2. *Path coefficients and indirect effects for knowing why competencies*

	Path Coefficients			Indirect Effects	
	To Job Crafting (JC)	To Knowing Why Competences (WHY)	To Job Insecurity (JI)	Estimate	Bias-Corrected Bootstrap 95% Confidence Interval
Job contract (1 = fixed-term)	.07 (.04)	−.32** (.07)	.28** (.10)		
Boundaryless Career Orientation (BCO)	.14** (.04)	.05 (.07)	−.31** (.09)		
Job crafting (JC)		.25* (.10)	.37* (.14)		
Knowing why competence (WHY)			−.39** (.11)		
Work contract			.37** (.12)		
Total				.02 (.03)	−.05; .08
BCO → JC → JI				.05 (.02)	.02; .11
BCO → WHY → JI				−.02 (.03)	−.08; .02
BCO → JC → WHY → JI				−.01 (.01)	−.04; −.01
R^2	.07**	.11**	.17**		

Note: Bootstrap confidence intervals were constructed using 5,000 samples. Standard error in parentheses. * $p < .05$; ** $p < .01$.

Hypothesis 2 assumed a negative association between boundaryless career orientation and job insecurity throughout job crafting, as first mediator, and knowing how competencies, as second mediator. Table 3 provides estimate of all path coefficients, as well as the indirect associations along with 95% bias-corrected bootstrapped confidence intervals for all the paths.

Also in this case, boundaryless career orientation showed a negative association with job insecurity ($B = -.26$; $p < .001$). Moreover, this relation was significantly mediated by job crafting ($B = .06$; 95%CI = .02; .12). Also knowing how competencies mediated the association between boundaryless career orientation and job insecurity ($B = -.06$; 95%CI = −.13; −.01). Most interestingly, a boundaryless career orien-

TAB. 3. *Path coefficients and indirect effects for knowing how competencies*

	Path Coefficients			Indirect Effects	
	To Job Crafting (JC)	To Knowing How Competences (HOW)	To Job Insecurity (JI)	Estimate	Bias-Corrected Bootstrap 95% Confidence Interval
Job contract (1 = fixed-term)	.07 (.04)	−.17** (.06)	.36** (.10)		
Boundaryless career orientation (BCO)	.14**(.04)	.26** (.05)	−.26* (.10)		
Job crafting (JC)		.55** (.08)	.40* (.15)		
Knowing how competence (HOW)			−.23* (.11)		
Work contract			.45** (.12)		
Total				−.02 (.04)	−.10; .05
BCO → JC → JI				.06 (.03)	.02; .12
BCO → HOW → JI				−.06 (.03)	−.13; −.01
BCO → JC → HOW → JI				−.02 (.01)	−.04; −.01
R^2	.06**	.25**	.12**		

Note: Bootstrap confidence intervals were constructed using 5,000 samples. Standard error in parentheses. * $p < .05$; ** $p < .01$.

tation was negatively associated with job insecurity through the serial mediation of job crafting and knowing how competencies (B = –.02; 95%CI = –.04; –.01). Thus, *Hypothesis 2* was supported.

The last study hypothesis, *Hypothesis 3*, proposed job crafting and knowing whom competencies as sequential mediators in the negative association between boundaryless career orientation and job insecurity. Table 4 reports a significant relationship between boundaryless career orientation and job insecurity (B = –. 28; $p < .001$).

Moreover, job crafting mediated this relationship (B = .05, 95%CI = .01; .11). Knowing whom competencies acted as a mediator in the association between boundaryless career orientation and job insecurity (B = –.04; 95%CI = –.10; –.01). Finally, job crafting and knowing whom competencies sequentially mediated the association between boundaryless career and job insecurity (B = –.01; 95%CI = –.03; –.01). These results provided support to *Hypothesis 3*.

Moreover, job contract was related to job insecurity in all the models, with unstandardized regression coefficients ranging from B = .37 ($p < .001$), to B = .45 ($p < .001$).

5. Discussion

The aim of the present study was to delve deeper into the relationship between boundaryless career orientation and job crafting, which represent two separate facets of employees' attitude toward a growing adaptability to a mutable work environ-

TAB. 4. *Path coefficients and indirect effects for knowing whom competencies*

	Path Coefficients			Indirect Effects	
	To Job Crafting (JC)	To Knowing Whom Competences (WHOM)	To Job Insecurity (JI)	Estimate	Bias-Corrected Bootstrap 95% Confidence Interval
Job contract (1 = fixed-term)	.07 (.04)	−.17** (.06)	.34** (.10)		
Boundaryless career orientation (BCO)	.14** (.04)	.13* (.06)	−.28** (.09)		
Job crafting (JC)		.28* (.11)	.36* (.14)		
Knowing whom competence (WHOM)			−.31** (.09)		
Work contract			.44** (.12)		
Total				−.00 (.03)	−.07; .06
BCO → JC → JI				.05 (.02)	.01; .11
BCO → WHOM → JI				−.04 (.02)	−.10; −.01
BCO → JC → WHOM → JI				−.01 (.01)	−.03; −.01
R^2	.05**	.08**	.15**		

Note: Bootstrap confidence intervals were constructed using 5,000 samples. Standard error in parentheses. * $p < .05$; ** $p < .01$.

ment, through the pursuit and gain of additional resources and skills. Greenhaus et al. (2008) proposed a theoretical model aimed at bringing clarity to the association between these constructs and their relationship with the acquisition of career competencies required by the current dynamism of labour market. This study was an early attempt to provide empirical support for this model. In particular, it was aimed at supporting the hypothesis that a boundaryless career orientation will be associated with a low perception of a job stressor able to reduce individuals' health and well-being, i.e., job insecurity. A boundaryless mindset may push employees to craft their jobs and consequently to acquire new competencies thanks to the crafting strategies of seeking job resources/challenging job demands and decreasing hindering job demands. Strategies for reinforcing old resources/competencies and for acquiring new ones are useful in keeping low the fear of losing one's job. In contrast to the hypothesized model (Figure 1) the obtained results indicated a positive relationship between job crafting and job insecurity. This result may be explained by the fact that the analyses were based on cross-sectional data that prevent from determining the causal relationship between the study variables, but rather describe the association between them. Thus, the present findings were in line with previous studies indicating that an unpredictable environment (i.e., uncertain job situation) could prompt employees to modify the key features of their job, for instance through a wider use of job crafting strategies (Lu et al., 2014). In other words, the perceived uncertainty could represent a challenge positively related to the individual motivation towards proactive behaviors that also include a stronger effort in shaping one's daily work activities (Berg, Wrzesniewski & Dutton, 2010).

On the whole, the current results contributed to the ongoing research on job crafting, boundaryless careers and job insecurity. In particular, they indicated that high levels of boundaryless career orientation were associated with low levels of job insecurity, through the mediation first of job crafting and then of different career competencies (knowing why, knowing how, and knowing whom). However, the relationship with job insecurity within the three supposed serial mediation models appeared to be relatively small in magnitude, with size effects $< \pm.10$ (Cohen, 1992). Therefore, the statistical power of these relationships was relatively small and a portion of the variance in job insecurity could be explained by factors other than those included in the model developed by Greenhaus and colleagues (2008).

On the other hand, the current study had several strengths. First, the obtained results support the enactment perspective of boundaryless careers (Weick, 1996), because they pointed out the role played by a boundaryless mindset in regard to the attempt to enhance one's professional expertise and, at the same time, in keeping a work stressor such job insecurity under control. In addition, they diverge from the stress perspective (Colakoglu, 2006), that postulates the uncertainty and discontinuity of boundarylessness as an antecedent of individuals' job insecurity.

In addition, they disagree with the assumption that individual resources may be useful only in coping with events occurring in the personal domain (Mak & Mueller, 2000). According to the present results, individual strategies such as crafting one's job and career may be suitable also in perceiving lower levels of job insecurity. Further research using a longitudinal design could test whether this result is actually explained by the role played by career strategies in boosting employees' proficiency and wellbeing at work that, in turn, may result in a lower perception of job insecurity.

This study contributed to the current literature on job crafting by showing that a boundaryless career orientation may enhance the adoption of these strategies, in line with previous empirical results (Brenninkmeijer & Hekkert-Koning, 2015; Briscoe, Henagan, Burton & Murphy, 2012). Finally, the positive association between job crafting and career competencies provided empirical support for the assumption that the application of job crafting strategies may result in enhanced competencies in driving one's own career path (Akkermans & Tims, 2017).

5.1. Limitations

The study has some limitations that should be mentioned. First, the limited magnitude of the effect size. A plausible reason may concern the specific characteristics of the sample. The respondents were all Italians belonging to individual professional categories and with specific job characteristics (e.g., the level of autonomy). This heterogeneity was useful for testing the general validity of the hypothesized relationships but, at the same time, stronger relationships might be found through separate analyses on other professional categories.

Greta Mazzetti, Chiara Lancioni, Eva Derous, Dina Guglielmi

A second limitation concerns the imbalance between participants with temporary and permanent employment (respectively, 28.7% and 71.3% of participants). The obtained results showed that a portion of variance in job insecurity may be explained by the type of contract, which was positively related to job insecurity in all three hypothesized models, in line with previous results (De Witte & Näswall, 2003). Therefore, this disproportion could have affected the power of the relationships investigated and, consequently, should be controlled for in future researches. Additionally, the role of the type of contract should be analyzed with regard not only to job insecurity, but also to boundaryless career orientation, job crafting and the intention to acquire new competencies. The specific type of employment (temporary *vs* permanent) may affect these dimensions in differing ways and, consequently, it may modify their reciprocal interactions.

The present study was based on a cross-sectional research design, which prevents us from establishing the direction of the hypothesized causal chain that links boundaryless career orientation, job crafting, career competencies and job insecurity. Future study should therefore adopt longitudinal data in order to establish the actual direction of the association between these variables. Finally, the current data were collected with self-report measures, thus increasing the likelihood of the common method variance effect.

5.2. Practical implications

As a first attempt to test the model developed by Greenhaus and colleagues (2008), the present study provided further knowledge on potential intervention strategies aimed at improving employees' expertise and, consequently, enhancing their perceived level of employability in an unpredictable labour market. A future research direction entails the opportunity to explore various outcomes that can be framed in this theoretical perspective, in addition to job insecurity, such as the perception of employability. Consistent with the enactment perspective on boundarylessness (Weick, 1996), it could be hypothesized that job crafting and career competencies may mediate the positive association between boundaryless career orientation and the perception of employability.

In addition, future research could also consider the relationship between each job crafting strategy, on the one hand, and career competencies and job insecurity, on the other hand, in line with the assumption that individual strategies may be particularly suitable for acquiring specific career competence, given their diverse nature.

Finally, the study has important implications for HR practices. Given the negative association between boundaryless career orientation and job insecurity, a first suggestion would imply the enhancement of this attitude toward one's career. A boundaryless mindset is defined as an attitude, therefore it is open to development through specific training paths (Briscoe et al., 2006).

Organizational support programs aimed at increasing employees' perception of control over their own career might, in turn, increase their tendency to engage in crafting strategies and, consequently, this may result in an improved pool of competencies that could become particularly fruitful for their marketability in the labour market. In particular, training programs focused on career self-management behaviors should be combined with specific interventions aimed at shaping employees' attitude toward their career, and an organizational culture that encourages a self-directed career management approach (De Vos & Soens, 2008). On the whole, the current study underlined the strategic role of a boundaryless career orientation in order to efficiently face an unpredictable labour market, where job stability and ascendant traditional career paths cannot be taken for granted.

References

Akkermans, J. & Tims, M. (2017). Crafting your career: How career competencies relate to career success via job crafting. *Applied Psychology: An International Review*, *66*, 168-195. doi:10.1111/apps.12082.

Arthur, M. B. & Rousseau, D. M. (1996). *The boundaryless career: A new employment principle for a new organizational era*. Oxford: University Press.

Berg, J. M., Wrzesniewski, A. & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior*, *31*, 158-186. doi:10.1002/job.645.

Berntson, E. & Marklund, S. (2007). The relationship between perceived employability and subsequent health. *Work & Stress: An International Journal of Work, Health & Organizations*, *21*(3), 279-292. doi:10.1080/02678370701659215.

Brenninkmeijer, V. & Hekkert-Koning, M. (2015). To craft or not to craft: The relationships between regulatory focus, job crafting and work outcomes. *Career Development International*, *20*(2), 147-162. doi:10.1108/CDI-12-2014-0162.

Briscoe, J. P. & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behaviour*, *69*, 4-18. doi:10.1016/j.jvb.2005.09.002.

Briscoe, J. P., Hall, D. T. & DeMuth, R. L. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, *69*(1), 30-47. doi:10.1016/j.jvb.2005.09.003.

Briscoe, J. P., Henagan, S. C., Burton, J. P. & Murphy, W. M. (2012). Coping with an insecure employment environment: The differing roles of protean and boundaryless career orientations. *Journal of Vocational Behavior*, *80*(2), 308-316. doi:10.1016/j.jvb.2011.12.008.

Brislin, R., Lonner, W. & Thorndike, R. (1973). *Cross-cultural research methods: comparative studies in behavioral science*. New York: Wiley.

Cenciotti, R., Borgorgni, L., Callea, A., Colombo, L., Cortese, C. G., Ingusci, E., Miraglia, M. & Zito, M. (2016). The Italian version of the Job Crafting Scale (JCS). *Applied Psychology Bulletin*, 277, 28-36.

Chirumbolo, A. & Hellgren, J. (2003). Individual and organizational consequences of job insecurity: A European study. *Economic and Industrial Democracy*, *24*(2), 217-240. doi: 10.1177/0143831X03024002004.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155-159. doi: 10.1037/0033-2909.112.1.155.

Colakoglu, S. N. (2006). *The relationship between career boundarylessness and individual wellbeing: a contingency approach* (Unpublished doctoral dissertation). Drexel University.

Colakoglu, S. N. (2011). The impact of career boundarylessness on subjective career success: The role of career competencies, career autonomy, and career insecurity. *Journal of Vocational Behavior*, *79*(1), 47-59. doi: 10.1016/j.jvb.2010.09.011.

DeFillippi, R. J. & Arthur, M. B. (1996). Boundaryless contexts and careers: A competency-based perspective. In M. B. Arthur & D. M. Rousseau, *The boundaryless career*. New York: Oxford University Press.

Demerouti, E. & Bakker, A. B. (2014). Job crafting. In M. C. W. Peeters, J. de Jonge & T. W. Taris (Eds.), *An introduction to contemporary work psychology*. London, UK: Wiley.

De Vos, A. & Soens, N. (2008). Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, *73*(3), 449-456. doi: 10.1016/j.jvb.2008.08.007.

De Witte, H. & Näswall, K. (2003). «Objective» vs. «subjective» job insecurity: Consequences of temporary work for job satisfaction and organizational commitment in four European countries. *Economic and Industrial Democracy*, *24*(2), 149-188. doi: 10.1177/0143831X03024002002.

De Witte, H., Vander Elst, T. & De Cuyper, N. (2015). Job insecurity, health and well-being. In J. Vuori, R. Blonk & R. H. Price (Eds.), *Sustainable working lives: Managing work transitions and health throughout the life course* (pp. 109-128). New York, NY: Springer.

Fugate, M., Kinicki, A. J. & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, *65*, 14-38. doi: 10.1016/j.jvb.2003.10.005.

Green, F. (2011). Unpacking the misery multiplier: How employability modifies the impacts of unemployment and job insecurity on life satisfaction and mental health. *Journal of Health Economics*, *30*(2), 265-276. doi: 10.1016/j.jhealeco.2010.12.005.

Greenhaus, J. H., Callanan, G. A. & DiRenzo, M. S. (2008). A boundaryless perspective on careers. In J. Barling & C. L. Cooper (Eds.), *The Sage handbook of organizational behavior – Volume 1: Micro perspectives* (pp. 277-299). London: SAGE.

Gubler, M., Arnold, J. & Coombs, C. (2014). Organizational boundaries and beyond: A new look at the components of a boundaryless career orientation. *Career Development International*, *19*, 641-667. doi: 10.1108/CDI-11-2013-0143.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.

Kiazad, K., Seibert, S. E. & Kraimer, M. L. (2014). Psychological contract breach and employee innovation: A conservation of resources perspective. *Journal of Occupational and Organizational Psychology*, *87*, 535-556. doi: 10.1111/joop.12062.

Lo Presti, A., Nonnis, M. & Briscoe, J. P. (2011). The protean and boundaryless career in Italy: Game on? In M. Cortini, G. Tanucci & E. Morin (Eds.), *Boundaryless careers and occupational well-being* (pp. 7-16). New York, NY: Palgrave McMillan.

Lu, C. Q., Wang, H. J., Lu, J. J., Du, D. Y. & Bakker, A. B. (2014). Does work engagement increase person-job fit? The role of job crafting and job insecurity. *Journal of Vocational Behavior*, *84*, 142-152. doi: 10.1016/j.jvb.2013.12.004.

Mak, A. S. & Mueller, J. (2000). Job insecurity, coping resources and personality dispositions in occupational strain. *Work & Stress*, *14*(4), 312-328. doi: 10.1080/02678370010022462.

McArdle, S., Waters, L., Briscoe, J. P. & Hall, D. T. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behavior*, *71*(2), 247-264. doi: 10.1016/j.jvb.2007.06.003.

Preacher, K. J. & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments & Computers*, *36*, 717-731. doi: 10.3758/BF03206553.

Quigley, N. R. & Tymon, W. G., Jr. (2006). Toward an integrated model of intrinsic motivation and career self-management. *Career Development International*, *11*, 522-543. doi: 10.1108/13620430610692935.

Reyneri, E. (2017). *Introduzione alla sociologia del mercato del lavoro*. Bologna: Il Mulino.

Santos, J. R. A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. *Journal of Extension*, *37*, 1-5.

Sverke, M., Hellgren, J. & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, *7*, 242-264. doi: 10.1037/1076-8998.7.3.242.

Tims, M., Bakker, A. B. & Derks, D. (2012). The development and validation of the job crafting scale. *Journal of Vocational Behavior*, *80*, 173-186. doi: 10.1016/j.jvb.2011.05.009.

Tims, M., Bakker, A. B. & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, *18*, 230-240. doi: 10.1037/a0032141.

Weick, K. (1996). Enactment and the boundaryless career: Organizing as we work. In M. B. Arthur & D. M. Rousseau (Eds.), *The Boundaryless Career: A new employment principle for a new organizational era* (pp. 40-57), New York: Oxford University Press.

Tackling job insecurity: Can a boundaryless career orientation boost job crafting strategies and career competencies?

The present study was aimed at investigating the mediating role played by job crafting and career competencies (i.e., knowing why, knowing how, and knowing whom) within the negative relation between boundaryless career orientation and job insecurity. A sample of 267 Italian employees fulfilled an online self-report questionnaire. Results of bootstrapping models with multiple mediators operating in serial indicated that boundaryless career orientation was negatively related to job insecurity through the subsequent mediation first of job crafting, and then of career competencies. This study provided support for the hypothesized relevance of training interventions focusing on the enhancement of a boundaryless perspective and job crafting strategies among HR best practices.

Keywords: boundaryless career, job crafting, career competencies, job insecurity.

Greta Mazzetti, Department of Education Studies, University of Bologna, Via Filippo Re 6, 40126 Bologna, Italy
greta.mazzetti3@unibo.it

Chiara Lancioni, Department of Education Studies, University of Bologna, Via Filippo Re 6, 40126 Bologna, Italy
chiara.lancioni@studio.unibo.it

Eva Derous, Department of Personnel Management, Work, and Organizational Psychology, Faculty of Psychology and Educational Sciences, Ghent University, Dunantlaan 2, 9000 Ghent, Belgium
eva.derous@ugent.be

Dina Guglielmi, Department of Education Studies, University of Bologna, Via Filippo Re 6, 40126 Bologna, Italy
dina.guglielmi@unibo.it