

Citation for published version

Sora, B. [Beatriz], Höge, T. [Thomas], Caballer, A. [Amparo], & Peiró, J. M. [José M.] (2019). Employment contract, job insecurity and employees' affective well-being: The role of self- and collective efficacy. *Economic and Industrial Democracy*, 40(2), 193-214.

DOI

<https://doi.org/10.1177/0143831X18804659>

Handle

<http://hdl.handle.net/10609/149721>

Document Version

This is the Accepted Manuscript version.

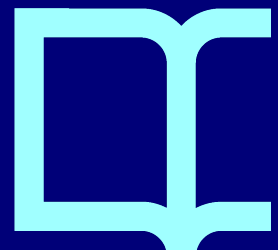
The version published on the UOC's O2 Repository may differ from the final published version.

Copyright

© The Authors

Enquiries

If you believe this document infringes copyright, please contact the UOC's O2 Repository administrators: repositori@uoc.edu



Beatriz Sora is an Associate Professor of Work and Organizational (W&O) Psychology at the Open University of Catalonia (Spain). She studied Psychology at the University of Valencia and received her PhD from this University too. Her research focuses on occupational health and well-being, job insecurity and unemployment from a multilevel approach.

Thomas Höge works as a senior scientist at the University of Innsbruck (Austria). He studied Psychology and Sociology at the University of Frankfurt/Main (Germany) and received his PhD from the Technical University of Munich. His research activities include workplace flexibilization, job insecurity, occupational health and well-being, and organizational democracy.

Amparo Caballer is Associate Professor of Work and Organizational (W&O) Psychology at the University of Valencia. Her research interests are Job Insecurity, unemployment and work socialization and, sustainable well-being. She has published numerous articles and book chapters on these topics. She is a member of the Research Institute of Human Resources Psychology Organizational Development and Quality of Working life (IDOCAL).

José M. Peiró is Professor of Work and Organizational (W&O) Psychology at the University of Valencia and Director of the Research Institute of Human Resources Psychology, Organizational Development and Quality of Working life (IDOCAL). His research focuses on occupational stress and wellbeing from a multilevel approach and on work socialization processes as well as youth labor market entry, job insecurity, unemployment, and over qualification. He has published about 200 articles and book chapters and several books and monographs.

Running head: JOB INSECURITY, ITS OUTCOMES AND SELF- AND
COLLECTIVE EFFICACY

Employment Contract, Job Insecurity, and Employees' Affective Well-Being: The
Role of Self- and Collective Efficacy

Beatriz Sora¹, Thomas Hoege², Amparo Caballer³ and José M^a Peiró⁴

¹Open University of Catalonia, Spain

²University of Innsbruck, Austria

³University of Valencia, Spain

⁴University of Valencia. IVIE, Spain

Corresponding author: Beatriz Sora, Department of Psychology and Education, Open
University of Catalonia, Rambla Poblenou 156, Barcelona 08018, Spain. Email:
bsora@uoc.edu

Employment Contract, Job Insecurity, and Employees' Affective Well-Being: The Role of Self- and Collective Efficacy

In recent decades, important transformations in labour markets and organizations have increased job flexibility and instability (e.g. strong competition, globalization, downsizing, and contingent contracts). Moreover, the recent economic crisis has aggravated this situation. Unemployment rates and the use of contingent contracts (i.e., temporary and part-time) have significantly increased throughout Europe, whereas job growth has decreased. More specifically, in 2010, the European unemployment rate was 9.6%, employment growth was -0.7%, temporary employment was 13.9% and part-time employment was 18.6%. However, the financial crisis has affected European countries differently. For example, Spain is one of the most affected countries (unemployment: 19.9%; temporary employment: 20.3%; part-time employment: 13%; employment growth: -1.7%). This job destruction especially affected temporary employment, as its net number was reduced by 1.2 million (Eurofound, 2015). By contrast, in other countries such as Austria, the effect has been less pronounced (unemployment: 4.8%; temporary employment: 5%; part-time employment: 24.4%; employment growth: 0.7%) (Eurostat, 2017). Overall, the financial situation promoted a generalized concern about the possibility of job loss in the current workforce and job insecurity has become a common stressor in many employees' work lives.

In this context, a relevant body of research has studied the threat of job loss and its implications. Evidence has shown that concern about job loss is not perceived equally by different types of workers because employees may not share the same work conditions, work contexts, or personal appraisals and resources. Therefore, job insecurity is usually understood as a subjective phenomenon. However, some models also reinforce the idea that there may be an objective characterization of job insecurity,

reflected, for example, in temporary employment (e.g. Klandermans, Hesselink and van Vuuren, 2010).

Moreover, studies have observed that employees go through negative changes in their work-related attitudes, health, and behaviours when they experience subjective job insecurity (e.g. Bünnings, Kleibrink and Weßling, 2017). However, the research on temporary employment (a potentially objective operationalization of job insecurity) presents mixed results about its association with well-being and health. Some studies state that temporary employment is a stressor related to detrimental outcomes (e.g. Beard and Edwards, 1995), whereas other studies associate temporary employment with positive employee reactions (e.g. De Witte and Näswall, 2003; Guest, Isaksson and De Witte, 2010).

Therefore, there is a debate about whether job insecurity can be considered objective or subjective and how its consequences can vary. Furthermore, the effect of intervening buffers must also be added in order to understand this variability in employees' reactions. Different factors may ameliorate the detrimental effects of job insecurity and temporary employment. Some variables related to subjective job insecurity are job dependence (Sora, Caballer and Peiró, 2010), tenure, age (Cheng and Chan, 2008) and social support (Lim, 1996). However, knowledge about the potential buffers of temporary employment is scarce (e.g. De Witte and Näswall, 2003; Dawson, Veliziotis and Hopkins, 2014).

Accordingly, this paper has a double aim. First, we want to add evidence to earlier findings about the job insecurity-well-being link, paying specific attention to the distinction between the conceptualization of job insecurity as a subjective phenomenon and the objective observation of temporary employment. Second, we aim to provide additional understanding about how job insecurity may affect employees' affective

well-being differently depending on other intervening factors. Therefore, we explore the role of personal and contextual buffers that can mitigate the detrimental effects of job insecurity on well-being, and more specifically, the moderating roles of individual and collective efficacy using a multilevel perspective.

Objective and subjective job insecurity

In the literature, most definitions of job insecurity reflect a perceptual and subjective experience. Employees in the same situation can experience different levels of job insecurity because they perceive and interpret the situation differently (Sverke et al., 2002). By contrast, there is also a line of research that defines job insecurity as an objective phenomenon. Objective job insecurity may be observed in terms of organizational decline/downsizing (e.g. Kozlowski, Chao, Smith and Hedlund, 1993) or as temporary employment (e.g. De Witte, 1999). Permanent workers perceive that their jobs are no longer secure because their organizations are declining or downsizing. Invariably, objective job insecurity is detrimental in this context (Mishra and Spreitzer, 1998). Pearce (1988) proposes that temporary employment is an indicator of objective job insecurity. In sum, the anticipation of unemployment, fostered by the threat of job loss, is the core element of an objective conceptualization of job insecurity. In this article, we adopt temporary employment as the “objective” operationalization of job insecurity. Thus, the term “temporary employment” reflects the objective conceptualization of job insecurity, whereas the term “job insecurity” represents its subjective operationalization and will be used in this way in what follows.

Temporary employment can be analysed using segmentation theory (Amuedo-Dorantes, 2000). It suggests a core-periphery differentiation in the labour market with a primary or internal labour market and a secondary or external labour market. The theory holds that the labour market cannot be seen as a homogenous whole, but rather as two

distinct segments. In the primary segment, workers enjoy job security, have opportunities for well-defined promotion, and provide considerable human capital. The secondary segment includes employees whose jobs are unstable, poorly paid, and require low qualifications. Temporary workers usually belong to the secondary market, and so they often have worse working conditions with lower wages, less chance of promotion, and greater job insecurity (De Witte and Näswall, 2003; Dawson, Veliziotis and Hopkins, 2014) than permanent workers, who represent the primary segment.

Despite the differences between temporary employment and subjective job insecurity, it is also possible to find common denominators. Both of them reflect the possibility and anticipation of job loss. According to stress theory (Lazarus and Folkman, 1984), the anticipation of an event can be a stressor that is as important as the event itself. Hence, the anticipation of job loss can be just as stressful as the job loss itself, and temporary employment and subjective job insecurity may be understood as work stressors. On the one hand, job insecurity is perceived as a threat because, after assessing their resources, employees conclude that they are insufficient and ineffective for coping with job insecurity. On the other hand, temporary employment often involves more aggravating job characteristics (“stressors”) that lead to stress reactions or strain, coinciding with segmentation theory (Le Blanc et al., 2000). Moreover, job insecurity and the anticipation of job loss can trigger worries about material and social deprivations in the future, which are also perceived as threats (Höge et al., 2015).

Much has been written about the negative consequences of job insecurity. The review by De Witte, Pienaar and de Cuyper (2016) focused on longitudinal studies examining this issue. Overall, they concluded that there is a causal relationship between job insecurity and well-being over time. Barrech (2016) showed that the perception of job insecurity in midlife was associated with lower levels of well-being in retirement.

These results show the detrimental effect of unstable work conditions, even after retirement. All this research considered job insecurity as a subjective phenomenon. Regarding temporary employment, several studies have examined the relationship between type of contract and well-being. However, this relationship has to be clarified further. In their review, Virtanen et al. (2005) stated that temporary workers presented lower levels of well-being compared to permanent workers. However, Bardasi and Francesconi (2004), working with data from the British Household Panel Survey (BHPS) and the German Socio-Economic Panel, found a non-significant relationship between temporary employment and psychological well-being. Furthermore, Guest, Isaksson and De Witte (2010) found that temporary employees reported higher well-being than permanent workers. A possible explanation for these ambiguous results could be based on the contextual situation. In a prosperous financial context, it is possible to understand the positive association between temporary employment and work outcomes and health. A labour market with diverse job opportunities creates a context where temporary employment might be perceived as less demanding than permanent employment. In an attempt to clarify these inconsistent results, some authors have distinguished different types of temporary employment, such as fixed-term, on-call or independent contractors (see e.g. Klandermans et al., 2010; Bernhard-Oettel et al., 2005). However, the results were not consistent. Klandermans et al. (2010) showed consequences of job insecurity varied according to employment type; whereas Bernhard-Oettel et al. (2005) did not find differences in employees' well-being as a function of their type of temporary employment.

This study aimed to provide additional evidence about the relationship between temporary employment and job insecurity and affective well-being. However, given that we aimed to examine temporary employment, as an indicator of objective job insecurity

within organizations, we assumed temporary employment as a single homogeneous category compared to permanent employment following its traditional and more extended conceptualization in the literature (e.g. De Cuyper & De Witte, 2006; 2007). So, we examined temporary employment and subjective job insecurity within organizations. Finally, taking into account that this research was carried out during a period of financial crisis, we propose that job insecurity and temporary employment may be associated with detrimental outcomes, based on stress theory. Thus, our hypotheses read as follows:

Hypothesis 1. Temporary workers will report lower levels of well-being compared to permanent workers.

Hypothesis 2. Job insecurity is negatively related to workers' affective well-being.

Job Self-efficacy

Stress research has solidly established that individual differences in cognitive processes are important in understanding the effects of stressors on individuals' outcomes (Semmer, 2003). Indeed, Lazarus and Folkman (1984) highlighted the role of personal resources to cope with stressors. Many of these intervening variables, understood as personal traits and skills, are solidly based on empirical evidence (e.g. emotional intelligence, Ciarrochi, Deane and Anderson, 2002; personal control, Folkman, 1989). However, this is not the case for job self-efficacy. In occupational stress research, we can find evidence that job self-efficacy moderated some, but not all stress-strain relationships (e.g. Schabroeck, Lam and Xie, 2000). Despite these results, overall, self-efficacy has been suggested as an important psychological resource to cope with stressors (e.g. Siu, Lu and Spector, 2007; Jex and Bliese, 1999).

Job self-efficacy is defined as “a cognitive self-appraisal of the ability to perform well in one's job” (Lubbers, Loughlin and Zweig, 2005: 201). It refers to individuals'

beliefs about their capacity to exercise control over their functioning and over events that affect their work lives (Schreurs et al., 2010). So, job self-efficacy has been postulated as a possible moderator within the stress process (Grau, Salanova and Peiró, 2001; Semmer, 2003). Presumably, individuals who trust in their own capabilities tend to perceive job difficulties as less threatening and more as challenges. Thus, they tend to experience less detrimental outcomes than employees with low job self-efficacy.

This idea is supported by Social Cognitive Theory (Bandura, 1997), which explains the stress experience in terms of low efficacy in exercising control over stressful events. Perceived self-efficacy refers to personal action, control, or agency. This ‘can do’ cognition involves a sense of control over the individual’s environment. It reflects the belief of being able to master challenging demands through adaptive action. Thus, work stressors for employees with a high sense of control do not lead to detrimental outcomes, compared to work stressors without this perceived control (Bandura, 1986, 2001).

We are only aware of two studies that have examined the moderating function of job self-efficacy in the job insecurity-outcomes relationship (Schreurs et al., 2010; König et al., 2010). In both studies, no significant moderator effect of job self-efficacy was found in the relationship between job insecurity and its outcomes, such as need for recovery, impaired general health (Schreurs et al., 2010), and performance (König et al., 2010). However, some limitations of these studies might explain these non-significant results. For example, the work by König et al (2010), as the authors themselves mentioned, was based on a homogeneous sample with a limited size: 273 employees from just one organization during a privatization process. Thus, power limitations in identifying potential relationships could be present. Moreover, some of their measures presented low reliabilities. Schreurs et al. (2010) used a larger and more representative

sample in Belgium (n=1368). However, the job insecurity level was low (mean=1.61; sd=.73) and it is difficult to find buffer effects for a work stressor that is practically non-existent.

With these theoretical and empirical issues in mind, we explore the potential buffer role of job self-efficacy in the relationship between objective (temporary employment) and subjective perceptions of job insecurity and affective well-being. We propose that employees with high job self-efficacy will perceive themselves as more capable of managing the threat of job loss, thus experiencing a less detrimental effect on their well-being compared to those with low job self-efficacy. Therefore, we hypothesize,

Hypothesis 3: Job self-efficacy moderates the relationship between temporary employment and affective well-being so that the relationship will be weaker for those with high job self-efficacy.

Hypothesis 4: Job self-efficacy moderates the relationship between subjective job insecurity and affective well-being so that the relationship will be weaker for those with high job self-efficacy.

Collective Efficacy.

In their stress theory, Lazarus and Folkman (1984) explained the importance of resources to cope with stressors. They proposed that resources to cope may not only be personal, but also contextual. In this respect, Bandura (1986) and others (e.g. Gist, 1987; Bohn et al., 2006; Rennesund and Saksvik, 2010) argued that the efficacy construct may be applied to collectives (i.e. groups or organizations), and not only to individuals. This construct was conceptualized as *collective efficacy*, which represents a shared belief that the collective is competent and able to act on the environment (Bandura, 2000). Hence, collective efficacy is an emergent attribute at a higher level, and it is more than the sum of individual efficacy beliefs. One possible and common

way to measure collective efficacy is to aggregate individual beliefs about collective efficacy within a group (Bandura, 2000; Jex and Bliese, 1999) or organization (Bohn, 2002; Lidsley et al., 1995).

As in the case of other collective constructs, collective efficacy, understood as shared beliefs, has its underpinnings in several theoretical social models. For example, socialization theory points out that newcomers assimilate the general organizational beliefs, perceptions, and norms through interactions with established members who transmit them (Schneider and Reichers, 1983). Moreover, Schneider's (1987) Attraction-Selection-Attrition model indicates that organizations achieve homogeneous membership through different processes: selection, attraction, and attrition. Thus, employees with similar perceptions or beliefs to those of the organization are the ones who stay. Finally, social comparison theory (Festinger, 1954) suggests that employees tend to compare themselves to close others in uncertain situations, leading them to adapt their own perceptions or beliefs as well. In summary, individuals interact with other members of their organizations while they perform their job tasks. This interaction creates joint experiences and facilitates the exchange of beliefs about organizational efficacy, and so a collectively shared organizational efficacy can emerge.

Against the background of this rationale, the organizational-level counterpart of individual- and group-level efficacy has received far less attention in the literature (Rennesund and Saksvik, 2010). Some research has examined collective efficacy at the organizational level and its influence on stressor-strain relationships (Bohn, 2002; Rennesund and Saksvik, 2010). Lidsley et al. (1995) defined organizational efficacy as an organization's "collective belief that it can successfully perform a specific task" (p. 648). In other words, collective efficacy represents shared beliefs about the organization's capabilities, resources, and constraints in attaining an objective.

Therefore, a high collective efficacy belief should contribute to an organizational context characterized by cooperation and support among organizational members. This positive context should provide employees with support and resources to cope with stressors. Collective efficacy can positively affect employees' individual and collective motivation and behaviours, as well as reducing their vulnerability to discouragement when facing problems (Bandura, 2000; Jex and Bliese, 1999; Tasa, Taggar and Seijts, 2007). In summary, as Rennesund and Saksvik (2010) described, the feeling of being a member of a highly competent organization may mitigate the detrimental effect of work stressors on employees because it provides them with a sense of security and of being "the best in the class".

In this regard, for example, Schaubroeck, Lam and Xie (2000) showed a significant three-way interaction among work-related demands, control, and collective efficacy and their influence on health in a sample of 207 Japanese and 229 American bank tellers. So, a strong sense of collective efficacy may boost well-being when employees experience high job demands. Furthermore, Jex and Bliese (1999) found that collective job efficacy moderated the relationship between work characteristics and strain in a sample of 2273 soldiers from 36 U.S. Army companies. Specifically, collective efficacy moderated the relationship between task significance and organizational commitment, and between work overload and job satisfaction. However, to date, there is no empirical knowledge about the moderating role of collective self-efficacy in the relationship between temporary employment or subjective job insecurity and their outcomes.

Based on the above, we expect high levels of collective efficacy to provide a positive work context and create conditions for employees to cope with temporary employment and job insecurity stressors; therefore, these employees would experience less detrimental outcomes. In other words, employees may report greater well-being

when experiencing job insecurity or temporary employment because they believe in the organizations' and the employees' ability to accomplish goals, and they trust that they will somehow successfully manage any situation, compared to employees who do not believe in their organizations' capacity. Hence, we propose that collective job efficacy moderates the relationship between temporary employment and subjective job insecurity and employees' affective well-being. More specifically, we expect collective job efficacy to mitigate this detrimental association. Accordingly, the following hypotheses were proposed:

Hypothesis 5: Collective job efficacy moderates the relationship between temporary employment and affective well-being, such that temporary workers in organizations with high collective efficacy will report higher well-being than those who work in organizations with lower collective efficacy.

Hypothesis 6: Collective job efficacy moderates the relationship between subjective job insecurity and affective well-being, such that, employees with job insecurity in organizations with high collective efficacy will report higher well-being than those who work in organizations with lower collective efficacy.

Method

Sample

Data were collected in 2011 during the economic crisis in two European Countries, Spain and Austria. Specifically, the sample was composed of 1435 employees from 138 organizations. 927 employees (65%) and 88 organizations (64%) were Spanish, whereas 508 employees (35%) and 51 organizations (36%) were Austrian. The sample was embedded in four labour sectors in both countries: the construction industry (26 organizations and 220 employees), retail (47 organizations and 443 employees), health services (27 organizations and 331 employees) and education (38 organizations and 441

employees). 899 employees were women (62.6%), and 496 were men (34.6%), with a mean age of 38.3 years (SD=10.8). 1120 employees had permanent contracts (78%), and 295 had temporary contracts (20.7%). The percentage mean of temporary employment in the organizations was 21.5% varying between 0% to 92%.

Procedure

Researchers contacted the human resources managers of the organizations to request their collaboration. The purpose of the research and the main features of the questionnaire were explained, guaranteeing anonymity and confidentiality. In the organizations and specific centres that decided to collaborate, questionnaires were handed out to employees. All employees who wished to participate completed surveys in the presence of a research assistant. Exceptionally, questionnaires that could not be filled out during the data-collection period were mailed to the research team by the subjects. Given that we had to rely on voluntary participation, the sampling method could not be completely random. The response rate ranged from 7.6% to 100%, with a mean of 59.38%.

Measures

Country was considered as a control variable codified as 0 (Spain) and 1 (Austria).

Age was measured in years.

Tenure was codified in months.

Sector was coded with three different dummy variables: education sector (1 education; 0 all other options), construction sector (1 construction; 0 other options), health sector (1 health; 0 other options).

Job Insecurity was assessed with a 4-item scale (De Witte, 2000). An example of the items on the scale is the following: “Chances are, I will soon lose my job”. The

response scale ranged from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's alpha for this scale in the study was .89.

Type of contract was considered as a dummy variable, codified as 1 (permanent contract) or 0 (temporary contract).

Job self-efficacy was measured with the scale developed by Riggs et al. (1994), consisting of 6 items (e.g. "I have confidence in my ability to do my job"). The response range was from 1 (strongly disagree) to 5 (strongly agree). The scale's reliability was .72.

The *collective efficacy* scale consisted of 4 items adapted from Salanova et al. (2003). The response range was from 1 (strongly disagree) to 5 (strongly agree). The items are the following: "My organization is totally competent to solve the work"; "I feel confident about the capability of my organization to perform the work very well"; "My organization is able to solve difficult tasks if we invest the necessary effort"; "I feel confident that my organization will be able to effectively manage unexpected troubles". The Cronbach's alpha for this scale in this study was .92. Given that in the present study one aim was to study self-efficacy as a collective phenomenon (organizational efficacy), individual ratings of collective efficacy had to be aggregated at the organizational level. However, first a set of requirements had to be met, such as within-organizational agreement and between-organizational variance. To determine the within-organizational agreement, $r_{wg(j)}$ (James, Demaree and Wolf, 1993) and an average deviation index ($AD_{M(j)}$) (Burke, Finkelstein and Dusig, 1999; Burke and Dunlap, 2002) were computed. Both indexes confirmed the within-organizational agreement for collective efficacy: $r_{wg(j)}$ (mean=.88; median=.92) and $AD_{M(j)}$ (mean=.54; median=.53). The between-organizational variance was computed through a one-way analysis of variance (ANOVA). The results ($F(136, 1279)=5.40, p<.01$) revealed

significant between-organizational differences. Hence, ratings presented greater consistency within each organization than across larger contexts (see Bliese, 2000). Finally, Bliese (2000) also recommended verifying the reliability of the measure by means of the intraclass correlation indexes (ICC1 and ICC2). ICC1 presents the proportion of total variance that can be explained by group membership, and ICC2 indicates the degree to which group means can be reliably differentiated. Both indexes (ICC1=.30; ICC2=.81) presented acceptable reliability compared to previous research (Liao and Rupp, 2005; Gonzalez-Morales, 2006). In conclusion, these indexes supported the aggregation of individual ratings of collective efficacy at the organizational level.

Affective well-being was measured with 11 adjectives (e.g. “enthusiastic”, “gloomy”) from Warr (1990), characterizing job-related affective well-being (Warr, 1990). We used the following instruction: “In the past few weeks, how often have you felt each of the following regarding your work?” This scale measured two facets of affective well-being: *anxiety-calm* and *depression-enthusiasm*, with a response range from 1 (never) to 5 (always). Therefore, higher scores on these scales reflected higher levels of affective well-being. The Cronbach’s alpha was .82 for calm and .86 for enthusiasm.

Data Analysis

First, descriptive statistics and correlation analyses were carried out. Later, multilevel random coefficient models (RCM) were computed. Although their prerequisites were previously examined (Bliese, 2000), group-level properties of dependent variables were calculated through ICC(1). To find out the intercept variations in the outcome variables, Chi-square likelihood tests, which compare one model with a random intercept and another model without a random intercept, were computed. This

analysis points out that groups differ on the dependent variable; that is, whether collective efficacy is related to variability of the intercept. The last prerequisite was the between-group slope variations in the outcome variables, which were examined using the Chi-squared likelihood test between a model with a random slope for the independent variables (job insecurity and type of contract) and a model without a random slope. Several variables were controlled in the analysis as well: country, age, tenure, and sector.

In order to gain greater knowledge about the nature of the interactions, they were graphically plotted (Aiken and West, 1991). Finally, we used grand-mean centred scores to solve the possible problem of multicollinearity (see Hofmann & Gavin, 1998). The cross-level analyses were performed using the random coefficient model program “lme”, written for S-PLUS (Pinheiro & Bates, 2000).

Results

Descriptive statistics and correlations among variables are presented in Table 1. In general, the correlations between the variables were not very high.

-----Please, insert table 1 about here -----

Several prerequisites were taken into consideration before performing random coefficient models. Firstly, ICC(1) was computed to examine the proportion of variance of the outcome variables explained by organizational membership (calm, .15; and enthusiasm, .15). Secondly, intercept variation in the outcome variables was examined. Models with random intercepts were significantly better than the models without random intercepts for calm (-2 log likelihood = 84.59, $p < .01$) and enthusiasm (-2 log likelihood = 82.65, $p < .01$). Thus, the results showed significant intercept variation in the outcome variables. Lastly, between-group slope variation in the outcomes was examined. The job insecurity-outcome variable slopes varied significantly across groups

as well, but only for subjective job insecurity. The results presented significant variations for calm (-2 log likelihood ratios = 19.56, $p < .01$) and enthusiasm (-2 log likelihood ratios = 63.97, $p < .01$). For temporary employment-outcome slopes, there was no variability: calm (-2 log likelihood ratios = 0.71, $p > .05$) and enthusiasm (-2 log likelihood ratios = 1.97, $p > .05$). In summary, the prerequisites were verified for all the outcome variables related to subjective job insecurity as an independent variable.

Random coefficient models could be calculated for subjective job insecurity predicting affective well-being. In contrast, the prerequisites were not met for temporary employment predicting well-being. The slopes did not vary among organizations; that is, there were non-significant organizational differences in the temporary employment-well-being link. So, the relationship between temporary employment and well-being can only be examined at the individual level; therefore, additional multiple hierarchical regressions were computed.

Hypothesis 1 was not supported (see Table 2). The multiple hierarchical regressions did not show a significant association between temporary employment and affective well-being. By contrast, hypothesis 2 was fully confirmed (Table 3). The multilevel random coefficient model showed a significant and negative relationship between subjective job insecurity and affective well-being.

-----Please, insert table 2 about here -----

Hypothesis 3, which proposed a moderator effect of job self-efficacy in the relationship between temporary employment and well-being was not supported (Table 2). The hierarchical regressions showed a non-significant moderator effect of job self-efficacy in the association between temporary employment and affective well-being. By contrast, the results of the multilevel random coefficient models (RCM) supported a moderator effect of job self-efficacy in the relationship between subjective job

insecurity and well-being. Hence, hypothesis 4 was supported (table 3). Hypothesis 5 was not supported because there was no evidence of inter-organization variability in the temporary contract – well-being slopes. However, hypothesis 6 was confirmed (table 3), as collective efficacy moderated the relationship between subjective job insecurity and well-being.

-----Please, insert table 3 about here -----

To inspect the nature of the interactions, they were plotted. Figures 1 and 2 show the direction of the interaction effects for calm and enthusiasm, respectively. Subjective job insecurity is negatively related to well-being, but this effect is weaker when employees' job self-efficacy is high, further confirming hypothesis 4. Similarly, the relationship between job insecurity and well-being was also weaker under conditions of high collective efficacy compared to low collective efficacy, confirming hypothesis 6. The moderator effect of collective efficacy is slightly stronger than that of individual job self-efficacy.

-----Please, insert figures 1 and 2 about here -----

Finally, although the main effects of self- and collective efficacy were not hypothesized, the results showed that they were positively related to well-being (see table 3). Moreover, the results showed significant relationships between the control variables and affective well-being. A significant and negative association was found between tenure and well-being. In addition, employees from the construction sector experienced lower well-being compared to employees from other sectors (health, retail, or education). Finally, workers in Austria, where the financial crisis had been less severe, reported higher job security and higher levels of affective-well-being compared with Spanish workers.

Discussion

This study aimed to increase understanding about the effect of the threat of job loss on employees' affective well-being. More specifically, we considered objective and subjective job insecurity. Objective job insecurity was indicated by temporary employment, and subjective job insecurity was considered a personal and perceptual experience. Furthermore, the study examined the association between temporary employment and subjective job insecurity and employees' well-being by focusing on job self-efficacy and collective efficacy as factors that might moderate this relationship. The results partially supported our hypotheses.

Temporary employment seems to be an adequate indicator of objective job insecurity, at least in the context of this study conducted at a time when the economic crisis had affected temporary employment to a greater extent than permanent employment. Temporary employment was not significantly related to employees' affective well-being. These results are congruent with some previous research on temporary employment (e.g. Bardasi and Francesconi, 2004), and could be explained by the influence of other factors. The relationship between type of contract and well-being may depend on the voluntary or involuntary nature of the temporary employment relationship, the specific type of non-permanent contract, the institutional context, and the overall job market in the country (Dawson et al., 2014). Our study was performed during a period of economic crisis. This context may have affected our results. For example, temporary employees might report affective well-being because they have maintained or found employment, regardless of their job conditions, in a period characterized by the job loss. Our results showed a significant association between subjective job insecurity and well-being. This finding is congruent with most of the literature, which considers job insecurity to be a work stressor (i.e. Greenhalgh and

Rosenblatt, 2010; Selenko et al., 2013; Sora et al., 2011). In conclusion, job insecurity can present different consequences depending on the way it is operationalized. Our results show that subjective perceptions have greater effects on employees' affective well-being than the more objective indicator of temporary employment. A possible explanation, drawing on stress theory (Lazarus and Folkman, 1984), is that the psychological anticipation of job loss might be just as stressful as the job loss itself. It is also congruent with some studies that argue that job insecurity might be less harmful for temporary workers than for permanent workers (e.g. Rigotti et al. 2009). Job insecurity was understood as part of the expectations and every day experience of temporary workers unlike permanent workers. In this vein, a number of studies revealed that job insecurity was associated with lower levels of job satisfaction and organizational commitment among permanent workers, but not among temporary workers (e.g. De Cuyper and De Witte, 2006; 2007).

Regarding buffering factors, given that there was a non-significant relationship between temporary employment and affective well-being, it is understandable that no resources are needed to buffer this. However, employees who judged themselves as efficacious in their jobs reported less harmful reactions to subjective job insecurity reflected in higher well-being. Furthermore, our study investigated the moderator effect of job self-efficacy simultaneously with the moderator effect of collective efficacy, which means that the effect of individual self-efficacy is controlled by the impact of collective efficacy in our study.

Our results also support the hypothesis proposing the buffering effect of collective efficacy. Well-being was less affected by job insecurity among employees from organizations with higher levels of collective efficacy than among employees from organizations characterized by low collective efficacy. These results are also congruent

with the prevailing literature on the role of collective efficacy in the stressor-strain relationship, focusing on other stressors (e.g. Schaubroeck, Lam and Xie, 2000; Jex and Bliese, 1999; Tasa, Taggar and Seijts, 2007).

In sum, job self- and collective efficacy seem to help employees to cope with subjective job insecurity more effectively. According to job self-efficacy theory (Bandura, 2000), these results suggest that both employees who perceived themselves as competent and those who worked in organizations with a shared belief of high efficacy tended to perceive subjective job insecurity as less threatening.

Furthermore, our results show the value of approaching the topic from a multi-level perspective (Peiró, 2008) considering both individual differences and contextual effects simultaneously. Although not the main focus of our study, the results provide evidence for main effects of job self-efficacy and collective efficacy. These results are congruent with an important body of studies showing that job self-efficacy (e.g. Grau, Salanova and Peiró, 2001; Beas and Salanova, 2006) and collective efficacy (Goddard, Hoy and Hoy, 2000; Walumbwa et al., 2004) influence employees' attitudes and well-being.

Our results also revealed differences between two European countries during this period of economic crisis. Spain had higher levels of temporary employment and Spanish workers reported higher subjective job insecurity compared to Austria. In contrast, Austrian workers reported higher levels of affective well-being than Spanish ones, who worked in a more uncertain labour context. This is congruent with the literature on job uncertainty (e.g. De Witte, Pienaar and de Cuyper, 2016; Barrech, 2016; Virtanen et al., 2005).

Finally, our results pointed out that those workers who have been with an organization for longer periods experienced lower levels of affective well-being. This differs from the general assumption that employees with longer tenure in their

organizations seems to develop a favourable view of their treatment by the organization and to present high morale and well-being outcomes (e.g. Rhoades and Eisenberger, 2002; Mäkikangas et al., 2015). Nevertheless, there seems to be a recent controversy in the literature on this issue. There is empirical evidence showing how longer term employees may develop unfavorable perceptions and low well-being (e.g. Pignata et al., 2016). Further research is needed to explain this association. For example, research could explore different types of employees' commitment including continuance and normative commitment in addition to affective commitment since continuance commitment may be associated with less positive attitudes (see Meyer and Allen, 1997).

Limitations. Before considering the theoretical and practical implications, it is important to note the main limitations of this study. The cross-sectional design did not allow us to draw inferences about causal relations. In future research, longitudinal designs are needed in order to test the hypothesized relationships over time. Furthermore, all the variables were measured by self-report questionnaires. The relationships can be inflated by common-method bias (Podsakoff et al., 2003). To assess potential common method variance, Harman's one-factor test was computed. It was computed through two confirmatory factor analyses: a global model and four-factor model (Podsakoff et al., 2003). The results showed that the single factor model did not fit the data as well as the more complex model. All items also loaded on their respective factors. Hence, common method variance did not seem to be a serious threat to the interpretation of the results of this study. Finally, this study did not distinguish among various types of temporary employment. Some studies have shown the relevance of this differentiation because the outcomes may not be the same for each type (i.e. Bernhard-Oettel, Sverke and De Witte, 2005).

Theoretical and practical implications. Our study has contributed to previous research on job insecurity in several ways. It has shown that temporary employment (objective job insecurity) and subjective job insecurity do not have the same effects on employees' well-being. Therefore, they must be dealt with differently in research and practice. However, two factors that can explain the variability in employees' responses to subjective job insecurity has been identified, namely job self-efficacy and collective job efficacy. Human resources professionals should consider and increase their employees' job self-efficacy by providing conditions that can foster self-efficacy, for example by establishing challenging but achievable individual objectives, accompanied by the resources and opportunities to develop their skills. Likewise, organizations' collective efficacy is also a factor to consider. Organizations' structures, strategies, procedures, and missions should be designed in a way that increases their fit to environmental requirements, fostering cooperation and trust in the capabilities and efficacy of the whole organization. The combination of both individual- and collective-related interventions should be relevant in creating a healthy and engaged workforce.

Future research. The different types of temporary employment and their effects on employees should be analysed in future research, compared to the effect of subjective job insecurity. In this vein, some studies have already distinguished different types of temporary employment (e.g. Klandermans et al., 2010; Bernhard-Oettel et al. 2005; Guest, Isaksson and De Witte, 2010). However, the results were not conclusive. Additional measures to examine objective job insecurity could also be relevant, such as downsizing or the bankruptcy process. Furthermore, a strong belief in one's own or the collective efficacy are crucial conditions that employees tend to control to cope with difficulties (Bandura, 2001). In this regard, perceived control seems to be a fundamental variable in the literature on job insecurity. The perception of control, including the

ability to protect oneself from negative consequences, can also ameliorate the harmful effects of job insecurity. Further research is needed to clarify the influence of efficacy, control, and their interrelations at different levels on the impact of job insecurity on outcomes. Finally, other constructs in combination with job self-efficacy could also play an important role in the job insecurity-outcomes link. Some examples of these constructs would be employment efficacy, defined as “*individuals’ confidence in their ability to find an acceptable job*” (De Coen, Forrier and Sels, 2015, p. 87) or employability, understood as the “*employees’ chance of finding alternative employment, either on the internal or the external labour market*” (Forrier and Sels, 2003). Unlike job self-efficacy, these constructs refer to employees’ ability to find future jobs, whereas job self-efficacy refers to the current one. Moreover, job control and locus of control usually show a strong overlap with self-efficacy, which might reduce the remaining effect of self-efficacy when these two control-related variables are partialled out (see Scheurs et al., 2010; König et al., 2010). Similarly, other collective constructs could also contribute to explaining the job insecurity-well-being relationship. Some of these constructs could include group aspiration levels, defined as “*exact statements of performance goals rather than cognitive beliefs about group’s capability*” (Lindsley, Brass and Thomas, 1995, p. 648); or organizational climate, defined as “*the shared perception of the way things are around here. More precisely, climate is shared perceptions of organizational policies, practices, and procedures*” (Reichers and Schneider, 1990: 22). Further research could examine how the combination of these constructs contributes to explaining employees’ reactions to job insecurity.

In conclusion, *efficacy* understood as an individual or collective phenomenon can act as a buffer and ameliorate the association between subjective job insecurity and reduced well-being. Thus, this study contributes to existing job insecurity research by

exploring two additional factors on different levels (individual vs. organizational) that could influence the relationship between subjective job insecurity and affective well-being.

References

- Aiken LS and West SG (1991) *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park: Sage Publications.
- Amuedo-Dorantes C (2000) Work transitions into and out of involuntary temporary employment in a segmented market: evidence from Spain. *Industrial & Labor Relations Review* 53(2): 309-325.
- Bandura A (1986) The explanatory and predictive scope of self-efficacy theory. *Journal of Clinical and Social Psychology* 4(3): 359-373.
- Bandura A (2000) Exercise of human agency through collective self-efficacy. *Current Directions in Psychological Science* 9(1): 75-78.
- Bandura A (2001) Social cognitive theory: an agentic perspective. *Annual Review of Psychology* 52(1): 1-26.
- Bardasi E and Francesconi M (2004) The impact of atypical employment on individual wellbeing: evidence from a panel of British workers. *Social Science & Medicine* 58(9): 1671-1688.
- Barrech A (2016) Mid-life job insecurity associated with subjective well-being in old age: results from the population-based MONICA/KORA study. *Scandinavian Journal of Work, Environment & Health* 42(2): 170-174.
- Beard KM and Edwards JR (1995) Employees at risk: contingent work and the psychological experience of contingent workers. In: Cooper CI and Rousseau DM (eds) *Trends in Organizational Behavior*, Vol. 2. Chichester: John Wiley, pp. 109–126.
- Beas MI and Salanova M (2006) Self-efficacy beliefs, computer training and psychological well-being among information and communication technology workers. *Computers in Human Behavior* 22(6): 1043-1058.

- Bernhard-Oettel C, Sverke M and De Witte H (2005) Comparing three alternative types of employment with permanent full-time work: how do employment contract and perceived job conditions relate to health complaints?. *Work & Stress* 19(4): 301-318.
- Bliese PD (2000) Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis. In: Klein KJ and Kozlowski SWJ (eds) *Multilevel Theory, Research, and Methods in Organizations*. San Francisco: Jossey-Bass, pp. 349-381.
- Bohn JG (2002) The relationship of perceived leadership behaviors to organizational efficacy. *Journal of Leadership & Organizational Studies* 9(2): 65-79.
- Bünnings C, Kleibrink J and Weßling J (2017) Fear of unemployment and its effect on the mental health of spouses. *Health Economics* 26(1): 104-117.
- Burke MJ and Dunlap WP (2002) Estimating interrater agreement with the average deviation index: a user's guide. *Organizational Research Methods* 5(2): 159-172.
- Burke MJ, Finkelstein LM and Dusig MS (1999) On average deviation indices for estimating interrater agreement. *Organizational Research Methods* 2(1): 49-68.
- Bussing A (1999) Can control at work and social support moderate psychological consequences of job insecurity? Results from a quasi-experimental study in the steel industry. *European Journal of Work and Organizational Psychology* 8(2): 219-242.
- Cheng GHL and Chan DKS (2008) Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology: An International Review* 57(2): 272-303.
- Ciarrochi J, Deane FP and Anderson S (2002) Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences* 32(2): 197-209.

- Dawson C, Veliziotis M and Hopkins B (2014) Temporary employment, job satisfaction and subjective well-being. *Economic and Industrial Democracy* 38(1): 1-30.
- De Coen A, Forrier A and Sels L (2015) The impact of age on the reservation wage: the role of employment efficacy and work intention. A study in the Belgian context. *Journal of Applied Gerontology* 34(3): 83-112.
- Cuyper N and Witte H (2006) The impact of job insecurity and contract type on attitudes, well-being and behavioural reports: a psychological contract perspective. *Journal of Occupational and Organizational Psychology* 79(3): 395-409.
- De Cuyper N and De Witte H (2007) Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behaviour. *Work & Stress*, 21(1): 65-84.
- De Witte H (1999) Job insecurity and psychological well-being: review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology* 8(2): 155-177.
- De Witte H (2000) Arbeidsethos en jobonzekerheid: meting en gevolgen voor welzijn, evredenheid en inzet op het werk. In: Bouwen RK, De Witte H and Taillieu T (eds) *Van Groep Naar Gemeenschap Liber Amicorum Prof Dr Leo Lagrou*. Leuven: Garant, pp. 325-350.
- De Witte H and 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.
- De Witte H, Pienaar J and De Cuyper N (2016) Review of 30 years of longitudinal studies on the association between job insecurity and health and well-being: is there causal evidence?. *Australian Psychologist* 51(1): 18-31.

- Eurofound (2015) *Recent Developments in Temporary Employment: Employment Growth Wages and Transitions*. Publications Office of the European Union: Luxembourg.
- Eurostat (2017). Available at: <http://ec.europa.eu/eurostat>.
- Festinger L (1954) A theory of social comparison processes. *Human Relations* 7(2): 117–140.
- Folkman S (1989) Personal control and stress and coping processes: a theoretical analysis. *Journal of Personality and Social Psychology* 46(4): 839-852.
- Forrier A and Sels L (2003) The concept employability: a complex mosaic. *International Journal of Human Resources Development and Management* 3(2): 102-124.
- Gist ME (1987) Self-efficacy: implications for organizational behaviour and human resource management. *Academy of Management Review* 12(3): 472-485.
- Goddard RD, Hoy WK and Hoy AW (2000) Collective teacher efficacy: its meaning measure and impact on student achievement. *American Educational Research Journal* 37(2): 479-507.
- Gonzalez-Morales MG (2006) *Estrés laboral afrontamiento y sus consecuencias: El papel del género*. PhD Thesis, University of Valencia, Spain.
- Grau R, Salanova M and Peiró JM (2001) Moderator effects of self-efficacy on occupational stress. *Psychology in Spain* 5(1): 63-74.
- Greenhalgh L and Rosenblatt Z (1984) Job insecurity: toward conceptual clarity. *Academy of Management Review* 9(3): 438-448.
- Greenhalgh L and Rosenblatt Z (2010) Evolution of research on job insecurity. *International Studies of management and Organization* 40(1): 6-19.
- Guest DE, Isaksson K and De Witte H (2010) *Employment Contracts Psychological*

Contracts and Employee Well-being: an International Study. Oxford: Oxford University Press.

Hofmann DA and Gavin MB (1998) Centering decisions in hierarchical linear models: implications for research in organizations. *Journal of Management* 24(5): 623-641.

Höge T, Sora B, Weber WG, Peiró J M and Caballer A (2015) Job insecurity, worries about the future and somatic complaints in two economic and cultural contexts: a study in Spain and Austria. *International Journal of Stress Management* 22(3): 223-242.

House RJ, Hanges PJ, Javidan M, Dorfman PW and Gupta V (2004) *Culture Leadership and Organizations: the GLOBE Study of 62 Societies*. London: Sage Publications.

James LR, Demare RG and Wolf G (1993) R_{wg} : an assessment of within-group interrater agreement. *Journal of Applied Psychology* 78(2): 306-309.

Jex SM and Bliese PD (1999) Efficacy beliefs as a moderator of the impact of work-related stressors: a multilevel study. *Journal of Applied Psychology* 84(3): 349-361.

Jex SM, Bliese PD, Buzzell S and Primeau J (2001) The impact of self-efficacy on stressor-strain relations: coping style as an explanatory mechanism. *Journal of Applied Psychology* 86(3): 401-409.

Klandermans B, Hesselink JK and Van Vuuren T (2010) Employment status and job insecurity: on the subjective appraisal of an objective status. *Economic and Industrial Democracy* 31(4): 557-577.

König CJ, Debus ME, Häusler S, Lendenmann N and Kleinmann M (2010) Examining occupational self-efficacy, work locus of control and communication as moderators of the job insecurity—job performance relationship. *Economic and Industrial Democracy* 31(2): 231–247.

- Kozlowski SWJ, Chao GT, Smith EM and Hedlund J (1993) Organizational downsizing: strategies, interventions, and research implications. In: Cooper C and Robertson I (eds) *International Review of Industrial and Organizational Psychology*. Chichester: John Wiley, pp. 262-332.
- Lazarus RS and Folkman S (1984) *Stress Appraisal and Coping*. New York: Springer.
- Le Blanc P, de Jonge J and Schaufeli W (2000) Job stress and health. In: Chmiel N (eds) *Introduction to Work and Organizational Psychology: A European Perspective* Oxford: Blackwell, pp. 148-177.
- Liao H and Rupp DE (2005) The impact of justice climate and justice orientation on work outcomes: a cross-level multifoci framework. *Journal of Applied Psychology* 90(2): 242-256.
- Lim VKG (1996) Job insecurity and its outcomes: moderating effects of work-based and non-work-based social support. *Human Relations* 49(2): 171-194.
- Lindsley DH, Brass DJ and Thomas JB (1995) Efficacy-performance spirals: a multilevel perspective. *Academy of Management Review* 20(3): 645-678.
- Lubbers R, Loughlin C and Zweig D (2005) Young workers' job self-efficacy and affect: pathways to health and performance. *Journal of Vocational Behavior* 67(2): 199-214.
- Mäkikangas A, Schaufeli W, Leskinen E, Kinnunen U, Hyvönen K and Feldt T (2015) Long-term development of employee well-being: a latent transition approach. *Journal of Happiness Studies* 17(6): 2325-2345.
- Meyer J and Allen N (1997) *Commitment in the Workplace: Theory, Research and Application*. London: Sage Publications.

- Mishra A K and Spreitzer G M (1998) Explaining how survivors respond to downsizing: the roles of trust empowerment justice and work redesign. *Academy of Management Review* 23(3): 567-588.
- Orpen C (1993) Correlations between job insecurity and psychological well-being among white and black employees in South Africa. *Perceptual and Motor Skills* 76(3): 885-886.
- Pearce JL (1998) Job insecurity is important but not for the reasons you might think: The example of contingent workers. In: Cooper CL and Rousseau (eds) *Trends in Organizational Behavior*. Chichester, UK: Wiley, pp. 31–46.
- Peiró JM (2008) Stress and coping at work: new research trends and their implications for practice. In: Näswall K Hellgren J and Sverke M (2008) *The Individual in the Changing Working Life*. Cambridge University Press, pp 284-310.
- Pignata S, Winefield AH, Provis C and Boyd CM (2016) Awareness of stress-reduction interventions on work attitudes: the impact of tenure and staff group in Australian universities. *Frontiers in psychology* 7: 1225.
- Pinheiro JC and Bates DM (2000) *Mixed-Effects Models in S and S-PLUS*. Springer-Verlag: New York.
- Podsakoff PM, MacKenzie SB, Lee J-Y and Podsakoff NP (2003) Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5): 879–903.
- Reichers AE and Schneider B (1990) Climate and culture: an evolution of constructs. In Schneider B (eds) *Organizational Climate and Culture*. San Francisco: Jossey-Bass, pp 5–39.
- Rennesund AB and Saksvik PO (2010) Work performance norms and organizational efficacy as cross-level effects on the relationship between individual perceptions of

self-efficacy, overcommitment and work-related stress. *European Journal of Work and Organizational Psychology* 19(6): 629-653.

Rhoades L and Eisenberger R (2002) Perceived organizational support: a review of the literature. *Journal of Applied Psychology* 87(4): 698–714.

Riggs ML, Warka J, Babasa B, Betancourt R and Hooker S (1994) Development and validation of self-efficacy and outcome expectancy scales for job-related applications. *Educational and Psychological Measurement* 54(3): 793-802.

Salanova M, Llorens S, Cifre E, Martínez I and Schaufeli W (2003) Perceived collective efficacy, subjective well-being and task performance among electronic work groups. *Small Group Research* 34(1): 43–73.

Salanova M, Peiro JM and Schaufeli WB (2002) Self-efficacy specificity and burnout among information technology workers: an extension of the job demands-control model. *European Journal of Work and Organizational Psychology* 11(1): 1-25.

Schaubroeck J, Lam S and Xie JL (2000) Collective efficacy versus self-efficacy in coping responses to stressors and control: a cross cultural study. *Journal of Applied Psychology* 85(4): 512-525.

Scheurs B, van Emmerik H, Notelaers G and De Witte H (2010) Job insecurity and employee health: the buffering potential of job control and job self-efficacy. *Work and Stress* 24(1): 56-72.

Schneider B and Reichers AE (1983) On the etiology of climates. *Personnel Psychology* 36(1): 19-39.

Schneider B (1987) The people make the place. *Personnel Psychology* 40(3): 437-453.

Schreurs B, van Emmerik H, Notelaers G and De Witte H (2010) Job insecurity and employee health: the buffering potential of job control and job self-efficacy. *Work and Stress* 24(1): 56-72.

- Selenko E, Makikangas A, Mauno S and Kinnunen U (2013) How does job insecurity relate to self-reported job performance? Analysing curvilinear associations in a longitudinal sample. *Journal of Occupation and Organizational Psychology* 86(4): 522-542.
- Semmer N (2003) Individual differences, work stress and health. In: Schabracq MJ Winnubst JA Cooper CL (eds) *Handbook of Work and Health Psychology*. Chichester: Wiley, pp. 83-120.
- Siu O Lu Ch and Spector PE (2007) Employees' well-being in greater China: the direct and moderating effects of general self-efficacy. *Applied Psychology: An International Review* 56(2): 288-301.
- Sora B, Caballer A and Peiró J M (2010) The consequences of job insecurity for employees: the moderator role of job dependence. *International Labour Review* 149(1): 59-72.
- Sora B, Gonzalez-Morales M, Caballer A and Peiró JM (2011) Consequences of job insecurity and the moderator role of occupational group. *Spanish Journal of Psychology* 14(2): 820-831.
- Sverke M, Hellgren J and Näswall K (2002) No security: a meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology* 7(3): 242-264.
- Tasa K, Taggar S and Seijts GH (2007) The development of collective efficacy in teams: a multilevel and longitudinal perspective. *Journal of Applied Psychology* 92(1): 17-27.
- Virtanen M, Kivimäki M, Joensuu M, Virtanen P, Elovainio M and Vahtera J (2005) Temporary employment and health: a review. *International Journal of Epidemiology* 34(3): 610-622.

Virtanen M, Nyberg ST, Batty GD, Jokela M, Heikkila K, et al (2013) Perceived job insecurity as a risk factor for incident coronary heart disease: systematic review and meta-analysis. *British Medical Journal* 8: 347-f4746.

Walumbwa FO, Wang P, Lawler JJ and Shi K (2004) The role of collective efficacy in the relations between transformational leadership and work outcomes. *Journal of Occupational and Organizational Psychology* 77(4): 515-530.

Warr P (1990) The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology* 63(3): 193-210.

Table 1

Descriptive statistics (means and standard deviations) and correlations.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Country (0 Spain; 1 Austria)	-	-	-											
2. Age	38.28	.48	-.11**	-										
3. Tenure	112.22	110.08	.06*	.59**	-									
4. Education sector	-	-	-.07**	.21**	.24**	-								
5. Construction sector	-	-	.02	-.05*	-.13**	-.28**	-							
6. Health sector	-	-	.03	-.01	-.07**	-.36**	-.23**	-						
7. Job insecurity	2.07	1.04	-.30**	-.10**	-.15**	-.11**	.21**	-.04	-					
8. Employment (0 Temporary; 1 Permanent)	-	-	.01	.22**	.27**	-.02	-.13**	.04	-.26**	-				
9. Job Self-Efficacy	4.26	.56	-.14**	.03	-.00	.04	-.07**	.04	-.03	.03	-			
10. Collective Efficacy	4.06	.83	.17**	-.01	-.07**	.05	-.03	-.04	-.36**	.02	.14**	-		
11. Well-Being: Calm	3.67	.74	.09**	-.01	-.05	.03	-.05*	-.02	-.37**	-.00	.10**	.36**	-	
12. Well-Being: Enthusiasm	4.03	.73	.04	.01	-.03	.09**	-.08**	-.03	-.37**	.01	.17**	.38**	.77**	-

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$, two-tailed.

Table 2

Hierarchical Regression Analysis for Type of Contract and Job Self-Efficacy Predicting Affective Well-Being (e.g. Calm and Enthusiasm)

	Calm	Enthusiasm
Step 1		
Country (0 Spain; 1 Austria)	.12**	.07**
Age	.06	.06
Tenure	-.12**	-.10**
Sector: education	.01	.07*
Sector: construction	-.07*	-.08*
Sector: health	-.05	-.03
Step 2		
Type of contract (0 Temporary; 1 Permanent)	.01	.02
Job self-efficacy	.12**	.17**
Step 3		
Type of contract*Job self-efficacy	.03	.03
R ²		
R ² change step 1	.02**	.02**
R ² change step 2	.01**	.03**
R ² change step 3	.00	.00

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ two-tailed

B are the standardized regression coefficients from the significant final stage of the regression analysis.

Table 3

Random Coefficient Models Predicting Well-Being (Calm and Enthusiasm)

	Calm		Enthusiasm	
	PE	SE	PE	SE
Intercept	3.710	.115	4.125**	.111
Country (0 Spain; 1 Austria)	.005	.056	-.062	.053
Age	.003	.002	.002	.002
Tenure	-.001**	.000	-.000*	.000
Labour sector: construction	-.036	.083	-.033	.080
Labour sector: health	-.153*	.072	-.095	.069
Labour sector: education	-.151*	.067	-.070	.065
Job Insecurity	-.254**	.026	-.272**	.030
Job Self-Efficacy	.159**	.033	.221**	.032
Collective Efficacy	.256**	.06	.226**	.061
Job Insecurity * Job Self-efficacy	.083*	.033	.126**	.032
Job Insecurity * Collective Efficacy	.094*	.048	.108*	.055

* $p \leq .05$ ** $p \leq .01$

Note: PE, parameter estimate. SE, standard error.

Figure 1. Interaction between job insecurity and job self- efficacy and collective efficacy in predicting calm

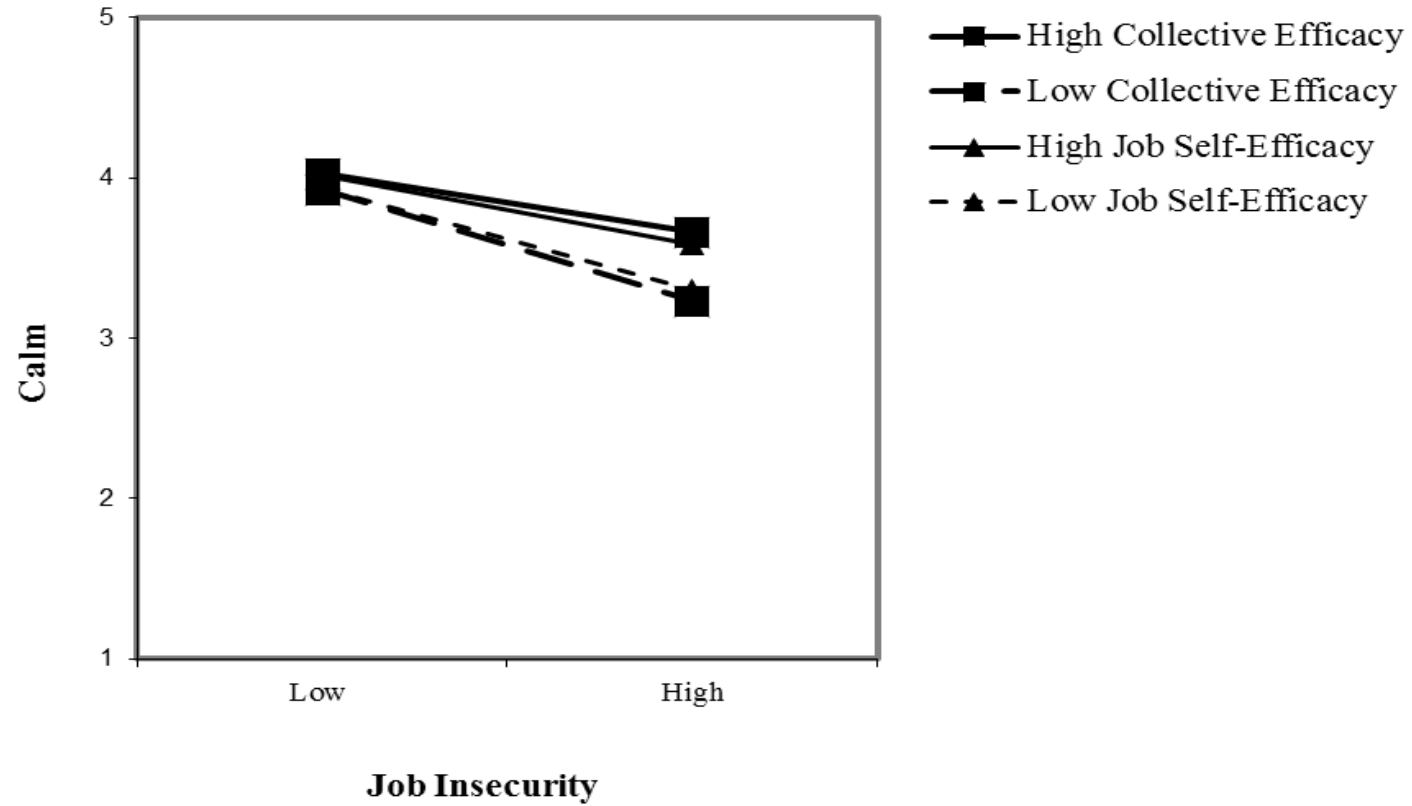


Figure 2. Interaction between job insecurity and job self-efficacy and collective efficacy in predicting enthusiasm

