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Spanish validation of the Job Insecurity Scale JIS-8: Viability of the cognitive and affective model

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Abstract

Background: This instrumental study is the Spanish adaptation and validation of the Job Insecurity Scale in its 8-item version (JIS-8). This is one of the reference tests in this field and it also allows the distinction between affect and cognition in quantitative job insecurity to be tested. **Method:** The JIS-8 was carried out on a Spanish sample with 592 participants (186 men, 406 women; Mean age = 36.68), together with mental health and job satisfaction tests. An exploratory factor analysis and confirmatory factor analysis were carried out, and the relationship between the scale and other variables was examined. **Results:** The Spanish validation shows good construct validity, internal consistency and a Cronbach a = .88, higher than the value obtained in the validation of the original instrument. The analysis shows the consequences of job insecurity on workers' mental health, as well as on their job satisfaction. The exploratory factor analysis as well as the confirmatory analysis, in which a one-dimensional and a two-dimensional model were tested, maintain the presence of two factors: the cognitive and the affective dimensions. **Conclusions:** The results underpin the fact that the test is appropriate for application to people in active employment in the Spanish population.

Keywords: Job insecurity, cognitive and affective model, health, job satisfaction, instrumental study.

Resumen

Validación española de la escala de incertidumbre laboral JIS-8: viabilidad del modelo afectivo y cognitivo. **Antecedentes:** a través del presente estudio instrumental se adapta al castellano y se valida la Job Insecurity Scale en su versión de 8 ítems (JIS-8), una de las pruebas de referencia en este campo, que además permite poner a prueba la distinción cognitiva y afectiva en la incertidumbre laboral cuantitativa. **Método:** el JIS-8 fue administrado a una muestra española de 592 participantes (186 hombres, 406 mujeres; Media de edad = 36,68), junto a pruebas de salud mental y satisfacción laboral. Se realizó un análisis factorial exploratorio y confirmatorio, y se ha estudiado la relación de la escala con otras variables. **Resultados:** la adaptación española muestra validez de constructo, buena consistencia interna y Cronbach α = .88, superior a la obtenida en la validación del instrumento original. El análisis llevado a cabo prueba las consecuencias de la incertidumbre laboral sobre la salud mental de los trabajadores, así como sobre su satisfacción laboral. Tanto el análisis factorial exploratorio como confirmatorio, donde se pusieron a prueba un modelo unidimensional y otro bidimensional, mantiene la presencia de dos factores: las dimensiones cognitiva y afectiva. **Conclusiones:** los resultados muestran que la prueba es adecuada para su uso en personas en situación laboral activa en población española.

Palabras clave: incertidumbre laboral, modelo cognitivo y afectivo, salud, satisfacción laboral, estudio instrumental.

The global socioeconomic crisis, which has especially impacted the European context, has transformed the labour market and labour relations, increasing labour precariousness and instability (Blanch, 2014; López-Araújo & Segovia, 2010; Standing, 2017). This precariousness has resulted in a sharp deterioration of well-being, and the physical and psychological health of the active population (Serrano Rosa, Moya Albiol, & Salvador, 2009; Vives et al., 2011), as well as of the family and social bonds of those affected (Sverke, Hellgren, & Näswall, 2006). In this context, job insecurity emerges as a subjective perception of workers when faced with the threat of an objective restructuring process inside their organization, which may result in job loss or a worsening of their working conditions, together with the decrease of promotion opportunities, salary reduction or other relevant aspects. It is, therefore, a social process generated among the members of a joint organization (Piccoli & De Witte, 2015), which also has individual effects (Cheng & Chan, 2008).

The job insecurity concept is defined as: "the subjectively perceived and undesired possibility of losing the present job in the future" (Vander Elst, De Witte, & De Cuyper, 2014, p. 365). This phenomena has been related to poor mental health, depressive symptoms, psychological distress, anxiety, incident coronary heart disease, and organizational issues like burnout or job satisfaction (De Witte, Pienaar, & De Cuyper, 2016).

Although Greenhalgh & Rosenblatt (1984) are usually regarded as the precursors in the study of subjective job

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insecurity, when referring to cognitive and emotional factors on which perceptions are built, it was not until 1992 when the cognitive and affective model of job insecurity was formulated in a more operational manner (Borg & Elizur, 1992). "This conceptualisation distinguishes between the ideas and thoughts with regard to losing one's job (cognitive job insecurity), and the feelings and fears associated with that cognition, on the other (affective job insecurity) (Pienaar, De Witte, Hellgren, & Sverke, 2013, p. 3). Despite the fact that much of the literature empirically supports the existence of these two factors (Borg & Elizur, 1992; Huang, Niu, Lee, & Ashford, 2012). Some authors question whether they are actually independent factors. In fact, there are firm methodological hints that point to both components as indivisible elements in the analysis of job insecurity (Vander Elst et al., 2014).

Thus, at present, people tend to accept the existence of a cognitive and emotional reaction to job insecurity, but the independence of both factors is yet to be proven. Therefore, over the last few years there has been a shift towards the quantitative and qualitative taxonomy. "Quantitative job insecurity refers to concerns about the future existence of the present job. Qualitative job insecurity pertains to perceived threats of impaired quality in the employment relationship, such as deterioration of working conditions, lack of career opportunities, and decreasing salary development" (Hellgren, Sverke, & Isaksson, 1999, p. 182). However, the complexity of delimiting qualitative job insecurity has implied that research in this field and measurement tests have focused on quantitative job insecurity.

As different job insecurity conceptualizations have emerged, several assessment scales have been developed. In terms of the scales using conceptualization based on cognitive and affective dimensions, all of them quantitative measures of job insecurity: Ashford, Lee and Bobko (1989); Borg and Elizur (1992); De Witte (2000), or Pienaar et al. (2013).

However, in the Spanish speaking context there are hardly any evaluation instruments that are statistically valid. To solve this problem, out of all the existing scales it was decided to adapt to Spanish and validate the quantitative job insecurity measurement tool Job Insecurity Scale (JIS) in its 8-item version (Pienaar et al., 2013), given its good track record in research and due to the fact that it enables the two-factor conceptual model of job insecurity (cognitive, affective) to be put to the test, with satisfactory psychometric results and recognition in the scientific community (Llosa, Menéndez-Espina, Agulló-Tomás, & Rodríguez-Suárez, In press). The test to be validated is the 2013 8-item Job Insecurity Scale version (Pienaar et al., 2013), used in recent years in international comparative studies (Vander Elst et al., 2014). The Job Insecurity Scale questionnaire (De Witte, 2000), was originally developed in German. It included 11 items. This version has given way to other validated versions with a different number of items and adapted to different cultural frameworks (Sora, Caballer, & Peiró, 2011; Vander Elst et al., 2014). The fact that this test has been adapted in other contexts increases the interest in Spanish validation for its international character. The 8-item scale was chosen because it is adapted in English-speaking contexts and maintains both factors (cognitive and affective), thus trying to facilitate international comparisons for the researchers who use it.

Method

Participants

The sample was obtained through non probabilistic random-accidental sampling. The questionnaires were completed by participants in a self-administered way, in paper form as well as online (through the Survey Monkey platform). It was composed of 592 participants from the Spanish general population, active in the labour market. The sociodemographic characteristics of the sample are described in Table 1.

Instruments

Four scales were used in the validation process:

JIS-8: The version of JIS (Pienaar et al., 2013) used in this case was developed by some of the members of the team who had designed the original German test and it had been validated in South Africa with a large sample, offering a reliability factor the cognitive dimension of $\alpha = .80$, and for the affective dimension of $\alpha = .84$. It includes 8 items to measure the cognitive dimension (4 initial items) and the affective dimension (4 final items) of job insecurity, and it also provides a global score. Cognitive dimension is relative to thinking about job insecurity and affective dimension to feelings about job insecurity (Pienaar et al., 2013). The response modality is presented in a 5-point Likert scale: from "Strongly disagree" to "Strongly agree". The first 4 items of the scale require a reverse coding of the scores, whereas the last 4 items provide a direct measurement.

GHQ-28: in order to replicate the original validation, the 28-item version of the General Health Questionnaire was administered (Goldberg & Hillier, 1979), validated in Spanish population (Retolaza Balsategui et al., 1993). The GHQ assesses the general status of mental health or well-being in the non-clinical population and internationally it is most widely used tool of its nature. The 28 items included in this version provide a global

Table 1
Sociodemographic characteristics of the sample

Characteristics	N	M(SD)
Gender		
Men	186	
Women	406	
Age		36.68 (11.61)
Educational		
None	4	
Basic and intermediate	344	
University	236	
Sector		
Public	182	
Private	370	
Mixed enterprise	40	
Nature of the contract		
Permanent	228	
Temporary	322	
Freelance	9	
No contract	31	

score and 4 sub-scales: somatic symptoms, anxiety measurement, social dysfunction and major depression. The response modality is the 4 alternative Likert scale (coded from 0 to 3). This test has been used for a long time in clinical practice and research, with a reliability score of $\alpha = .90$ for the Spanish population.

EWCS 2010 (Eurofound): The set of working conditions of the European Working Conditions Surveys 2010 consists of 16 items with a 5 Likert response modality. Elements concerning satisfaction, realization and participation in the labour context are evaluated in the test. The reliability score obtained was $\alpha = .82$ in the sample selected for the study.

Socio-demographic data: a scale designed ad hoc on the basis of questions taken from the methodological databases of the European Union Labour Force Survey (EU LFS) that Eurofound has for population surveys on EU Member States.

Procedure

The instruments where completed in this order: GHQ, EWCS, JIS-8 and socio-demographic data. All participants took part voluntarily and gave their consent after having been informed about the objectives and methodology of the research project. Their anonymity was respected and data confidentiality was guaranteed. This research follows the requirements and protocols of the Ethical Committee of the Psychology Department of the University where it was carried out.

This validation was performed following the instructions recommended by Muñiz, Elosua, & Hambleton (2013).

In terms of the tool to be validated, before administering the JIS-8, a blind back translation was done to ensure language equivalence between the English and the Spanish versions. The research team did a first conceptual translation of the items from English into Spanish, and then, the back translation was done (from the target language to the source language) by three native bilingual people with ample knowledge of both languages and without any information whatsoever about the topic or the aims of the study. The results confirmed the equivalence of the items between both versions. The test was validated in the final sample after having conducted a pre-test with 137 participants to evaluate the translation quality, its cultural adequacy as well as the questionnaire applicability.

Data analysis

Firstly, half of the sample was selected at random and an exploratory factor analysis was applied (EFA). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test and Bartlett's test of sphericity tested the data matrix adequacy to apply the EFA. Once verified the required asssumptions, the extraction method used was Maximum Likelihood and the rotation one, the direct Oblimin. After that, a confirmatory factor analysis (CFA) was carried out with the other half of the sample by means of the Maximum Likelihood method and the model adequacy was checked by applying the adjustment tests, SRMR, RMSEA, TLI and CFI. A factorial invariance test was carried out across genders to was studied to detect a possible gender bias in the test. First, a baseline model was estimated for each group, and then four nested invariance models ere estimated: configural, weak, strong and strict. The scale reliability was assessed by calculating Cronbach's alpha. The construct validity of the instrument was studied on the basis of the results of the exploratory and confirmatory factor analyses.

Then, with the total sample, the correlation between the scales obtained and other variables related to job insecurity (such as general mental health, somatic symptoms, anxiety, social dysfunction, depression, job satisfaction and time spent in the company) was studied. To identify the functioning of the dimensions obtained, a linear regression analysis was carried out with the following variables: job satisfaction and general mental health, after verifying the assumptions.

The SPSS 23 and AMOS 21 programs were used for the analyses.

Results

Exploratory factor analysis

KMO sampling adequacy test (.871) and Bartlett`s sphericity test (X^2_{28} = 1426.488; p<.001) confirmed the adequacy of the analysis. Two factors were extracted with the Maximum Likehood method. These accounted for 71.86% of the variance: one that included items 5 to 8, related in theory to the cognitive dimension, and another that included items 1 to 4 concerning the affective dimension. Table 2 shows the factor loads of each item on both

Table 2
Factor loading of each item on the factors extracted from the AFE

Items	Factor I	Factor II
Item 1. Estoy muy seguro de que seré capaz de mantener mi trabajo *(I am very sure that I will be able to keep my job)*	.12	**.79**
Item 2. Estoy seguro de/en mi entorno de trabajo *(I am certain/sure of my job environment)*	-.01	**.75**
Item 3. Creo que voy a poder seguir trabajando aquí *(I think that I will be able to continue working here)*.	,07	**.80**
Item 4. Solo hay una pequeña posibilidad de que vaya a perder mi empleo *(There is only a small chance that I will become unemployed)*	-.03	**.40**
Item 5. Me temo que podría ser despedido *(I fear that I might get fired)*	**.71**	.15
Item 6. Me preocupa la continuidad de mi Carrera *(I worry about the continuation of my career)*	**.86**	-.07
Item 7. Me temo que podría perder mi trabajo *(I fear that I might lose my job)*	**.87**	.03
Item 8. Siento incertidumbre sobre el futuro de mi trabajo *(I feel uncertain about the future of my job)*	**.84**	-.00
% variance explained	56.94	14.91
Factor correlation	.62	

factors after having applied the oblique rotation (direct Oblimin). These dimensions have a correlation factor of .62 (Table 2).

Confirmatory factor analysis

The confirmatory factor analysis tested a one-dimensional model, a two-dimensional model, a one-dimensional model with a method effect involving items 5 to 8, and a two-dimensional model with a latent second-order factor. The model adjustment values taken as a benchmark and the values to be adopted to illustrate a good or acceptable fit were the following: SRMR≤.08, RMSEA≤.10, TLI>.95 and CFI≥.95 (Schreiber, Nora, Stage, Barlow, & King, 2006). With these criteria, the one-dimensional model did not show a good fit (SRMR= .08; RMSEA= .20; TLI= .75 and CFI= .81), while the two-dimensional model showed a perfect fit (SRMR= 0.02; RMSEA= .08; TLI= .96; CFI= .97). Figure 1 shows the two-factor model, with the factor load of each variable or item in each of the scales (Figure 1). Table 3 shows the results of the factorial invariance test. The goodness of fit for the strict invariance model shows that JIS-8 do not has bias related to gender.

Internal consistency

Cronbach's alpha value is α= .88 for the global scale, and α= .78 for the affective sub-scale, and .90 for the cognitive scale. The

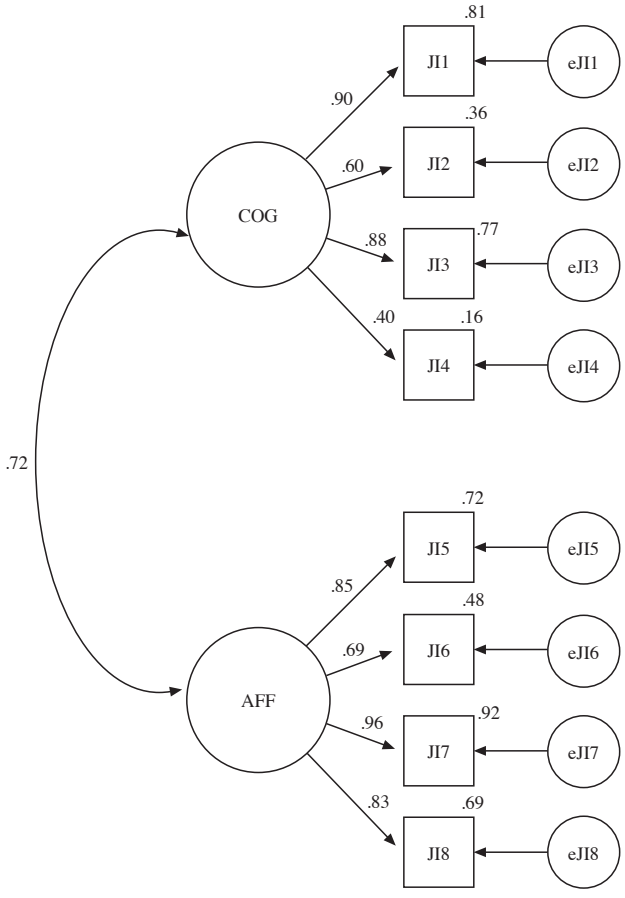

Figure 1. Confirmatory factor analysis of the two-factor model. AFF= Affective job insecurity; COG= Cognitive job insecurity; JI= Item; eJI= Error

Table 3
Tests for invariance models of JIS-8 in men and women

	χ^2	*df*	SRMR	RMSEA	TLI	CFI
Men	50.73	19	.038	.095	.951	.967
Women	74.30	19	.031	.085	.957	.971
Configural	125.03	38	.038	.062	.955	.970
Weak	129.53	44	.041	.057	.962	.970
Strong	141.29	50	.041	.054	.966	.969
Strict	174.64	60	.049	.057	.963	.960

analysis of the discrimination index and correlations between items is shown in Table 4. Only item 4 slightly reduces the internal consistency as it stays in the scale, although the item-test correlation is above .20 (Table 4).

Validity and relation with other variables

Table 5 shows the JIS-8 correlation, and the cognitive and affective dimensions with the other variables subject to study. The correlation is statistically significant (p<.05), and direct with the variables of general mental health, somatic symptoms, anxiety, social dysfunction, major depression, job satisfaction, and reverse with time spent in the company.

The results of the linear regression analysis with the variables of mental health and job satisfaction are shown in Table 6. The Beta coefficients are significant for job satisfaction (β_{cog} = .12; β_{af} = .35; p<.05) and for general mental health (β_{cog} = .12; β_{af} = .17; p<.05). This fact illustrates that both dimensions are good predictors of these variables, especially the affective one which shows higher coefficients. The model obtained underscores that the JIS-8 predicts a higher variance percentage in job satisfaction (adjusted R^2 = .19) than in general mental health (adjusted R^2 = .06) (Table 6).

Discussion

Firstly, this study aims to be the Spanish adaptation of the Job Insecurity Scale test including 8 items (JIS-8) developed by Pienaar et al. (2013) on the basis of the De Witte JIS scale (2000). Originally, the test was comprised of two factors, affective dimension and cognitive dimension, respectively. Later, this test was adapted to include measurements of just one factor and a variable number of items (Sora et al., 2011). The results obtained in our study show that the test is adequate to be applied to the Spanish labour force. The reliability results obtained in the Spanish adaptation model are higher than those found in the validation of the original test.

Two factors are maintained in the factor analysis of the Spanish population adaptation, for the cognitive and affective dimensions, corresponding to the initial four items of the cognitive dimension and the final four items of the affective dimension.

Another major aim of this work was to study the job insecurity model. Thus, in the face of unitary measures, our analysis underpins that the model proposed in the original validation, distinguishing between cognitive and affective job insecurity, is maintained in the Spanish adaptation, as two closely related dimensions. In this regard, Anderson and Pontusson (2007) assume that cognitive

Table 4
Discrimination index, skewness, kurtosis and Pearson correlations between items

	Discrimination index	Skewness	Kurtosis	1	2	3	4	5	6	7	8
Item 1	.736	.293	-.516	1							
Item 2	.551	.457	-.286	.605**	1						
Item 3	.707	.435	-.436	.763**	.580**	1					
Item 4	.315	-.158	-.893	.309**	.268**	.378**	1				
Item 5	.746	.461	-.735	.574**	.433**	.529**	.227**	1			
Item 6	.646	-.131	-1.108	.447**	.321**	.415**	.164**	.588**	1		
Item 7	.795	.293	-.958	.602**	.382**	.561**	.223**	.801**	.686**	1	
Item 8	.737	-.164	-1.116	.543**	.385**	.486**	.210**	.663**	.712**	.761**	1

Note: ** $p < .001$

Table 5
Descriptive statistics and correlations between the JIS-8 scale, its dimensions and other related variables

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Cognitive dimension	11.2	3.5	1	*								
2. Affective dimension	11.3	4.5	.585**	1								
3. Total JIS-8	22.5	7.1	–	–	1							
4. General mental health	22.6	12.4	.224**	.244**	.263**	1						
5. Somatic symptoms	6.0	4.0	.180**	.199**	.214**	.841**	1					
6. Anxiety	6.6	4.7	.198**	.205**	.226**	.891**	.713**	1				
7. Social dysfunction	7.4	2.8	.139**	.155**	.166**	.748**	.526**	.526**	1			
8. Major depression	2.4	3.5	.203**	.231**	.245**	.760**	.441**	.559**	.514**	1		
9. Job satisfaction	46.1	10.3	.333**	.431**	.435**	.211**	.158**	.146**	.213**	.193**	1	
10. Time spent in the company	83.6	117.2	-.297**	-.391**	-.391**	-.026	-.014	-.030	.018	-.051	-.136**	1

Note: * $p < .05$; ** $p < .001$

Table 6
Regression analysis of the dimensions of the JIS-8 scale as predictors of job satisfaction and general mental health

	Unstandardised coefficients		Standardised coefficients	t	Sig.	R^2	R^2 Adj.
	B	Standard error	Beta				
Job satisfaction							
(Constant)	32.715	1.312		24.929	.000		
Cognitive	.361	.134	.123	2.696	.007	.196	.193
Affective	.824	.105	.359	7.888	.000		
General Mental Health							
(Constant)	12.438	1.696		7.336	.000		
Cognitive	.424	.173	.123	2.510	.012	.069	.066
Affective	.473	.135	.172	3.506	.000		

job insecurity may be the variable that determines the expression of affective job insecurity, whereas other modelling approaches maintain a reverse sequence: affective job insecurity mediating between cognitive job insecurity and its consequences (Huang et al., 2012). What has been proven, however, is that there is a dual dimension and thus, the discussion focuses on whether the dimensions function in parallel or sequentially.

Our analysis also proves the impact of job insecurity on workers' health (Cheng & Chan, 2008; Vander Elst, Näswall, Bernhard-Oettel, De Witte, & Sverke, 2016) and on variables related to the labour market, in this case, job satisfaction (Vujicic, Jovicic, Lalic, Gagic, & Cvejanov, 2015). There is a direct relationship between the global score of job insecurity and, separately, in the two dimensions of the job insecurity scale and mental health in the four

dimensions of general mental health analysed by the GHQ-28, as well as in the total test score. The regression analysis underscores that the consequences of job insecurity have to be approached in a unitary manner. Cognitive and affective job insecurity are predictors of job satisfaction and of psychological well-being, in line with the conclusions reached by Pienaar et al. (2013). This is in stark contrast with the belief that cognitive job insecurity is a better predictor of the variables related to employment, and that affective job insecurity is a better predictor of the variables related to health conditions (Huang, Lee, Ashford, Chen, & Ren, 2010).

On the other hand, it is difficult to prove the different consequences resulting from cognitive job insecurity as opposed to affective job insecurity (De Witte et al., 2016; Vander Elst et al., 2014); but the existence of a dual dimension of the concept that does not only cause an impact on workers, but is also crucial for the genesis of the meaning of work has also been verified. Job insecurity is a determining factor for the person to give a meaning to work, a function that has two linked components, one affective and the other cognitive, as upheld by the first stress scholars (Lazarus, 1999).

It has also been observed that the shorter the duration of labour relations the higher the scores of job insecurity. This agrees with the fact that job insecurity is currently a complex and growing phenomenon (De Witte, Vander Elst, & De Cuyper, 2015) related to a more flexible labour relationship established in the financial post-crisis framework (Benach et al., 2014).

The results of this study allow us to conclude that the JIS-8 Spanish version and the original version work similarly, as many similarities were found with the validation carried out by Pienaar et al. (2013). In both studies, the performance of item 4 is lower than the others, although its correlation with the test does not imply it should be eliminated. In terms of the capacity of the cognitive and affective dimensions to predict mental health and job satisfaction, both have a stronger bond with the second variable. However, the affective dimension has a greater weight as a predictor than the cognitive dimension, contrary to what Pienaar et al. (2013) concluded.

This study has some limitations, one is that the sample of women is larger than of men. Another problem is the inclusion of four inverted items in the JIS-8, a method that can affect the internal consistency and the factor structure of the scales (Solís Salazar, 2015; Moreno, Martínez, & Muñiz, 2015). For future studies, we suggest adapting the same scale to Spanish speaking Latin American territories, Likewise, an important step forward would be to test the scale in specific population groups, either by age range, activity sector, or contract status. Finally, the adapted scale focuses on the relationship between the worker and his job situation, but neglects the job insecurity environment, a new field of study pertaining to job insecurity.

References

Anderson, C. J., & Pontusson, J. (2007). Workers, worries and welfare states: Social protection and job insecurity in 15 OECD countries. *European Journal of Political Research*, *46*(2), 211-235. https://doi.org/10.1111/j.1475-6765.2007.00692.x

Ashford, S. J., Lee, C., & Bobko, P. (1989). Content, cause and consequences of Job Insecurity: A theory-based measure and substantive test. *Academy of Management Journal*, *32*(4), 803-829. https://doi.org/10.2307/256569

Benach, J., Vives, A., Amable, M., Vanroelen, C., Tarafa, G., & Muntaner, C. (2014). Precarious employment: Understanding an emerging social determinant of health. *Annual Review of Public Health*, *35*, 229-253. https://doi.org/10.1146/annurev-publhealth-032013-182500

Blanch, J. M. (2014). La juventud NINI, un agujero negro psicosocial [Young people who do not study or work, a psychosocial black hole]. *Revista Psicologia: Organizações E Trabalho*, *14*(4), 355-366.

Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, *13*(2), 13-26. https://doi.org/10.1108/01437729210010210

Cheng, G., & Chan, D. (2008). Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology*, *57*(2), 272-303. https://doi.org/10.1111/j.1464-0597.2007.00312.x

De Witte, H. (2000). Arbeidsethos en jobonzekerheid: Meting en gevolgen voor welzijn, tevredenheid en inzet op het werk [Work ethic and job insecurity: Assessment and consequences for well-being, satisfaction and performance at work]. In R. Bouwen, K. De Witte, H. De Witte & T. Taillieu (Eds.), *Van groep naar gemeenschap [From group to community]. Liber Amicorum Prof. Dr. Leo Lagrou* (pp. 225-250). Leuven: Garant.

De Witte, H., Pienaar, J., & 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. https://doi.org/10.1111/ap.12176

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* (pp. 109-128). Netherlands: Springer Netherlands.

Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, *9*(1), 139-145.

Greenhalgh, L., & Rosenblatt, Z. (1984). Job insecurity: Toward conceptual clarity. *The Academy of Management Review*, *9*(3), 438-448. https://doi.org/10.2307/258284

Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: Consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, *8*(2), 179-195. https://doi.org/10.1080/135943299398311

Huang, G., Lee, C., Ashford, S., Chen, Z., & Ren, X. (2010). Affective job insecurity. *International Studies of Management & Organization*, *40*(1), 20-39. https://doi.org/10.2753/IMO0020-8825400102

Huang, G., Niu, X., Lee, C., & Ashford, S. J. (2012). Differentiating cognitive and affective job insecurity: Antecedents and outcomes: Cognitive and affective job insecurity. *Journal of Organizational Behavior*, *33*(6), 752-769. https://doi.org/10.1002/job.1815

Lazarus, R. S. (1999). *Stress and Emotion: A New Synthesis*. New York: Springer Publishing Company.

Llosa, J. A., Menéndez-Espina, S., Agulló-Tomás, E., & Rodríguez-Suárez, J. (In press). Job insecurity and mental health: A meta-analytical review of the consequences of precarious work in clinical disorders. *Anales de Psicología*.

López-Araújo, B., & Segovia, A. O. (2010). The effect of some organizational variables on health and occupational accidents. *Anales de Psicología*, *26*(1), 89-94.

Moreno, R., Martínez, R. J., & Muñiz, J. (2015). Guidelines based on validity criteria for the development of multiple choice ítems. *Psicothema, 27*(4), 388-394. https://doi.org/10.7334/psicothema2015.110

Muñiz, J., Elosua, P., & Hambleton, R. K. (2013). Directrices para la traducción y adaptación de los tests: segunda edición [Guidelines for translation and adaptation of tests: Second edition]. *Psicothema*, *25*(2), 151-157. https://doi.org/http://dx.doi.org/10.7334/psicothema2013.24

Piccoli, B., & De Witte, H. (2015). Job insecurity and emotional exhaustion: Testing psychological contract breach versus distributive injustice as indicators of lack of reciprocity. *Work & Stress*, *29*(3), 246-263. https://doi.org/10.1080/02678373.2015.1075624

Pienaar, J., De Witte, H., Hellgren, J., & Sverke, M. (2013). The cognitive/affective distinction of job insecurity: Validation and differential relations. *Southern African Business Review*, *17*(2), 1-22.

Retolaza Balsategui, A., Mostajo, A., De la Rica, J. R., Díaz de Garramiola, A., Pérez de Loza, J., Aramberri, I., & Markez Alonso, I. (1993). Validación del Cuestionario de Salud General de Goldberg (versión 28 ítems) en consultas de Atención Primaria [Validation of the Goldberg General Health Questionnaire (version 28 items) in primary care attention]. *Revista de la Asociación Española de Neuropsiquiatría*, *13*(46), 187-194.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., & King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research*, *99*(6), 323-338. https://doi.org/10.3200/JOER.99.6.323-338

Serrano Rosa, M. A., Moya Albiol, L., & Salvador, A. (2009). Work stress and health: Cardiovascular and endocrine indicators. *Anales de Psicología*, *25*(1), 150-159.

Solís Salazar, M. (2015). The dilemma of combining positive and negative items in scales. *Psicothema*, *27*(2), 192-200. https://doi.org/10.7334/psicothema2014.266

Sora, B., Caballer, A., & Peiró, J. M. (2011). Consequences of job insecurity. The moderator role of organizational support from a multilevel perspective. *Psicothema*, *23*(3), 394-400.

Standing, G. (2017). *La corrupción del capitalismo [The corruption of capitalism]*. Barcelona: Pasado y Presente.

Sverke, M., Hellgren, J., & Näswall, K. (2006). *Job insecurity: A literature review. Report No 1: 2006*. National Institution of Working Life & SALTSA. Commissioned by National Institution of Working Life & SALTSA.

Vander Elst, T., De Witte, H., & De Cuyper, N. (2014). The Job Insecurity Scale: A psychometric evaluation across five European countries. *European Journal of Work and Organizational Psychology*, *23*(3), 364-380. https://doi.org/10.1080/1359432X.2012.745989

Vander Elst, T., Näswall, K., Bernhard-Oettel, C., De Witte, H., & Sverke, M. (2016). The effect of job insecurity on employee health complaints: A within-person analysis of the explanatory role of threats to the manifest and latent benefits of work. *Journal of Occupational Health Psychology*, *21*(1), 65-76. https://doi.org/10.1037/a0039140

Vives, A., Vanroelen, C., Amable, M., Ferrer, M., Moncada, S., Llorens, C., …, & Benach, J. (2011). Employment precariousness in Spain: Prevalence, social distribution, and population-attributable risk percent of poor mental health. *International Journal of Health Services: Planning, Administration, Evaluation*, *41*(4), 625-646. https://doi.org/10.2190/HS.41.4.b

Vujicic, D., Jovicic, A., Lalic, D., Gagic, S., & Cvejanov, A. (2015). The relation between job insecurity, job satisfaction and organizational commitment among employees in the tourism sector in Novi Sad. *Economic and Industrial Democracy*, *36*(4), 633-652. https://doi.org/10.1177/0143831X14527017