Measurement of Psychological Capital in Spanish workers: OREA questionnaire

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Título: Evaluación del Capital Psicológico en trabajadores españoles: diseño y estructura empírica del cuestionario OREA.
Resumen: El capital psicológico es un constructo de orden superior formado por cuatro componentes (optimismo, resiliencia, esperanza y autoeficacia) que comprende el desarrollo de aquellas habilidades que tienen un impacto directo en el resultado de distintas variables organizativas. El objetivo de este estudio es el diseño de un cuestionario para evaluar el capital psicológico en el ámbito laboral. Se utilizaron dos muestras de trabajadores (N= 238; N= 338) pertenecientes a empresas de distintos sectores socioeconómicos de la Región de Murcia. Con los resultados de la primera muestra y mediante un análisis factorial exploratorio se confeccionó un cuestionario de 12 ítems, tres por cada una de las facetas del capital psicológico, que se denominó OREA (optimismo, resiliencia, esperanza y autoeficacia). A continuación, se aplicó el cuestionario a la segunda muestra y se realizó un análisis de ecuaciones estructurales, en el que el modelo de cuatro factores presentó valores de ajuste muy adecuados (GFI= .943; CFI= .936; RMSEA= .07). Se concluye que el cuestionario OREA presenta una estructura empírica acorde con el modelo teórico, y niveles de fiabilidad y validez adecuados.
Palabras clave: capital psicológico; trabajadores; organizaciones; psicología positiva.

Abstract: Psychological capital is a higher order construct made up of optimism, resilience, hope, and self-efficacy, which has a strong connection with different organizational variables. The aim of this study was to design a measure for assessing psychological capital in the workplace. Two samples of workers were used (N=238; N=338) belonging to Spanish companies from different socioeconomic sectors. Using the results of the first sample, and by means of an exploratory factorial analysis, a scale of 12 items was created. The 12 items included four triplets, each of which matches with one of the elements of psychological capital. The scale was called OREA (due to the names of these concepts in Spanish: *Optimismo, Resiliencia, Esperanza,* and *Autoeficacia* – Optimism, Resilience, Hope, and Self-efficacy). This measure was then applied to the second sample, and a structural equation analysis was made in order to contrast a one-factor model with a four-factor model. The latter showed very adequate adjustment values (GFI= .943; CFI= .936; RMSEA= .07). We therefore conclude that the OREA questionnaire is a consistent measure of psychological capital in connection with the theoretical model, and it has sufficient evidence of reliability and validity.
Keywords: psychological capital; employees; organisations; positive psychology.

Introduction

Nowadays, the concept of psychological capital is receiving a lot of attention in research and professional practice. This consideration is determined both by the competitive advantage it offers for organizations, because it is related to positive attitudes and behaviours in workers, and because it represents a personal resource open to change and development (Avey, Reichard, Luthans & Mhatre, 2011; Luthans, Avey, Avolio & Peterson, 2010). Moreover, uncertainties and continuous changes in the labour market require workers to have psychological resources that increase their personal and professional efficacy, and allow themselves to confront organisational demands.

Psychological capital is a positive psychological state characterised by being self-efficient or having the self-confidence to deal with challenges and difficult tasks, being optimistic or giving positive attributions to current successes/failures, having hope or visualising and preserving aims and goals, and being resilient or able to self-regenerate after facing adversity (Luthans, Youssef & Avolio, 2007).

Research on psychological capital has indicated that self-efficacy, resilience, optimism, and hope have an underlying common link, transforming into a construct of higher order.

This means that these elements together have a greater effect on diverse organizational variables than each element individually (Avey, Luthans, Smith & Palmer, 2010; Luthans *et al.*, 2007; Luthans *et al.*, 2010).

One of the most important characteristics of psychological capital is the fact that it is made up by 'state-like' variables, that is, they are susceptible to development by means of formative interventions. This converts psychological capital into a resource able to influence both workers and their organisations in a positive way (Luthans, Youssef-Morgan & Avolio, 2015).

The first element, self-efficacy, is defined as 'the belief in one's own abilities to organise and execute the courses of action needed to produce certain achievements or outcomes' (Bandura, 1997, p. 3). This is the element of psychological capital with greater theoretical and empirical foundations; it is not in vain that it is the centrepiece of Bandura's cognitive social theory. Self-efficacy acts as a key element in the perception of human competence and determines to a large extent the choice of activities, motivation, effort, and persistence when facing difficulties (Moriano, Topa, Molero, Entenza & Lèvy-Mangini, 2012). Thus, it is reasonable to think that high expectations of self-efficacy may help in dealing with possible stressors, therefore enabling a better state of perceived health.

Regarding optimism, Seligman (1998) pointed out that this is an ability that enables someone to make inner and stable attributions on positive events –i.e. a job promotion–

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and outer temporary attributions that factor in situational factors on negative events –i.e. job loss. Therefore, optimistic people are those who expect more good than bad things to happen to them, while pessimistic people expect more bad than good things to happen to them (Carver & Scheier, 2002). Optimism has been connected to adequate job performance (Green, Medlin & Withen, 2004), efficacy (Luthans, Avolio, Walumbwa & Li, 2005; Seligman, 1998), perception of a better quality of life and organisational atmosphere (Grau, Suñer & García, 2005), and the use of adequate coping strategies in the face of work stress (Morán & Schulz, 2008).

Resilience is a dynamic process involving people's positive adaptation to significantly adverse situations (Luthar, Cicchetti & Becker, 2000). It is a universal phenomenon characterised by adaptive behavioural patterns in response to risk and opposing contexts (Masten, 2001). Some studies have found positive connections between resilience and organisational commitment (Luthans, Norman, Avolio & Avey, 2008), productivity (Luthans, *et al.*, 2010), and satisfaction in life and work (Youssef & Luthans, 2007).

Finally, hope refers to 'a motivational positive state based on a sense interactively derived from agency (energy aimed to goals) and successful trajectories (planning to achieve goals)' (Snyder *et al.*, 1991, p. 287). Hope has been connected to academic achievement, sporting successes, and capacity to recover from disease (Curry, Snyder, Cook, Ruby & Rehm, 1997; Onwuegbuzie & Snyder, 2000), as well as a satisfactory job performance (Morrow, 2006; Peterson & Byron, 2008).

Several studies have shown positive and negative connections between psychological capital and different work and organisational variables such as job satisfaction (Badran & Youssef-Morgan, 2015; Karatepe & Karadas, 2015; Luthans *et al.*, 2007), organisational commitment (Larson & Luthans, 2006), engagement (Avey, Hughes, Norman & Luthans, 2008), efficacy (Avey *et al.*, 2011), intention to leave the organisation (Avey, Luthans & Jensen, 2009; Schulz, Luthans & Messersmith, 2014), burnout (Cheung, Tang & Tang, 2011; Ding*et al*, 2015), and health and welfare in workers (Avey, Wernsing & Mhatre, 2011; Krasikova, Lester & Harms, 2015).

The consideration of psychological capital as a construct of higher order led Luthans, Avolio, Avey and Norman (2007) to create the Psychological Capital Questionnaire (PCQ). This measure emerged from widely known scales of each of the elements of psychological capital: they used the State Hope Scale (Snyder et al., 1996) for hope, the Resilience Scale (Wagnild & Young, 1993) for resilience, the Life Orientation Test (Scheier & Carver, 1985) for optimism, and the Role Breadth Self-efficacy (Parker, 1998) for self-efficacy.

The PCQ has been the subject of validation studies in different countries, and it has generally been shown to have good psychometric properties (Cheung *et al.*, 2011; Clapp-Smith, Vogelgesang & Avey, 2009; Görgens-Ekermans &

Herbert, 2013; Luthans *et al.*, 2005; Nigah, Davis & Hurrell, 2012; Rego, Sousa, Marques & Pinha, 2012; Wang, Liu, Wang & Wang, 2012).

Azanza, Domínguez, Moriano and Molero (2014) wrote the Spanish adaptation of the PCQ, validating it in a sample of 372 workers. They concluded that the results of this version presented a high reliability, and an adequate convergent and discriminant validity. However, the sample used in this study was unusual as 74.4 % of the participants had university degrees, and 70.3 % held managerial or directing positions. Furthermore, if the content of PCQ's items is examined, it can be verified that they are remote from the average worker's reality, as they do not correspond to the activities and tasks that most workers undertake in their workplaces. It presents difficulties because some items will not be representative of workers at any hierarchical level, such as 'I trust myself when representing my department in meetings with the management board', or 'I feel confident when introducing new information to a peer group', or 'I trust in contributing to the discussions about the organisation strategy'.

In order to analyse the discriminant validity, job satisfaction, psychological health and psychosomatic symptoms, which have evident theoretical interest due to their connections with psychological capital, were included. Luthans *et al.*, (2007) have pointed out that psychological capital explains variability in levels of job satisfaction as a construct of second order in a manner that is clearer than every one of its elements individually. Larson and Luthans (2006) have shown that psychological capital has a greater impact in job satisfaction than social or human capital. Karatepe and Karadas (2015) have highlighted that workers with higher marks in psychological capital are more satisfied with their jobs, professional paths, and lives. Regarding the links between psychological capital and health, Avey *et al.*, (2010) conducted a longitudinal study with a sample of 280 employees, and showed that psychological capital is positively and significantly connected to two different measures of welfare. In a similar way, Avey *et al.* (2011) found connections between psychological capital and welfare, and that these are mediated by stress and emotions. Finally, Krasikova *et al.*, (2015) conducted a study with 1889 professional soldiers from the US army, and their results showed that, before a military deployment, soldiers with high levels of psychological capital were less likely to be diagnosed with mental illnesses upon their return.

Given the above situation, the main objective of this study was to create a measure of psychological capital adapted to the Spanish population that is based on the most relevant measurement scales in each of the four elements and that may be useful with any kind of worker.

Method

Participants

Two samples were used, made up of workers in Spanish companies from different socioeconomic sectors and occupations. Sample 1 consisted of 238 workers, of whom 124 (52.1 %) were men and 113 (47.5 %) were women, with an average age of 36.33 years old (*SD*=11.86, *range*= 17-63 years old), and an average length of professional experience of 10.22 years (*SD*=11.15, *range*= 1 month to 45 years). In terms of educational achievements, 31 % had only finished primary school, 28.4 % had gone to university, 22.9 % had studied a vocational training, and 17.7 % had finished secondary school. Regarding job post, 48.5 % held basic posts (operators and administrative staff), 40.3 % were technicians, and 11.2 % were managers. Concerning the type of contract, 53.2 % had permanent contracts and the rest of them were temporary employees.

Sample 2 was composed of 338 workers of whom 53.1 % (165) were men, and 46.9 % (146) were women, with an average age of 38.35 years old (*SD*= 12.11, *range*= 18-62 years old), and with an average length of professional experience of 10.9 years (*SD*= 9.99, *range*= 1 month to 41 years). In terms of educational achievements, 31 % had university studies, 31 % had finished primary school, 20 % had studied a vocational training and 18 % had finished secondary school. Concerning the job post, 53.1 % held basic posts (operators and administrative staff), 33.9 % were technicians, and 13 % were managers. Finally, regarding the type of contract, 75.1 % had permanent contracts.

Instruments

The following measures were used to create the psychological capital questionnaire. The General Self-efficacy Scale by Schwarzer and Baessler (1996), was used for self-efficacy, making use of the Spanish version by Sanjuan, Pérez and Moreno (2000). It assesses the stable feeling of personal competence to handle a wide range of situations in an effective way. The scale has ten items (e.g. item 7: 'come what may, I am usually able to handle it'). Optimism was assessed with the LOT-R Scale (Life Orientation Test-Revised) by Scheier, Carver and Bridges, (1994) making use of the Spanish version by Otero, Luengo, Romero, Gómez and Castro (1998). This scale consists of ten items, three of which measure optimism, another three pessimism, and the last four are neutral 'padding'. In this case, we just used the three optimism items (e.g. item 4: 'In hard times, I usually expect the best'). Resilience was estimated by means of the ten item CD-RISC scale (Connor-Davidson Resilience Scale) by Connor and Davidson (2003), adapted for Spanish by Notario-Pacheco *et al.*, (2011). In this questionnaire participants are asked to answer to what extent they agree with each of the ten sentences presented to them (e.g. item 6: 'I achieve my goals despite difficulties'). Finally,

a shortened HHI scale (Herth Hope Index) by Herth (1992), making use of the Spanish adaptation by Meseguer, Fernández and Soler (2013), was used for hope. This scale asks participants to answer each of the ten statements presented to them (e.g. item 2: 'I can see solutions at the centre of difficulties'). All the measures had the same format for responses: a four-point Likert scale from 1 (totally disagree) to 4 (completely agree).

In order to analyse the validity of the designed scale, job satisfaction and two measures of health were also assessed. Job satisfaction was assessed by means of the Overall Job Satisfaction scale by Warr, Cook and Wall (1979), adapted by Pérez and Fidalgo (1995), that scores satisfaction in different aspects of job. It consists of 15 items (e.g. item 10: 'Recognition obtained for a job well done') with seven response options, from 1, 'Very unsatisfied', to 7, 'Very satisfied'.

As measures of health, the following scales were used: the GHQ-12 (General Health Questionnaire) by Goldberg and Williams (2000), applying the Spanish adaptation by López and Dresch (2008), and the CCP (Psychosomatic Symptoms Questionnaire) by Hock (1988), using the Spanish version made by García-Izquierdo, Castellón, Albadalejo and García-Izquierdo (1993). The GHQ-12 consists of 12 items about health and welfare issues suffered over recent weeks (e.g. item 5: 'Have you felt constantly weighed down and tense?'). Assessment was made using a four-point Likert scale from 1, 'Absolutely not', to 4, 'Much more than usual'. It is necessary to take into account that high marks indicate a worse level of health. The CCP ask participants to answer how often during the last three months they have suffered any of the symptoms described in the 12 items (e.g. item 1: 'Inability to get to sleep'), with 5 possibilities of response ranging from 1, 'Never', to 5, 'Very often'.

Procedure

The surveys were completed in the workplace. Participants were given written notice about the scientific objectives of the study and the corresponding instructions. Besides the different scales described above, questions about sociodemographic and labour variables were included. Materials were handed out by members of the research team, and once the tasks were finished, each participant put the questionnaires inside a white envelope, that was collected. All participants took part voluntarily, and anonymity and confidentiality were guaranteed. Data collection from sample 1 was made from January to March 2014. In this sample, 300 questionnaires were delivered and 238 were correctly filled and given back (giving a response rate of 79 %). Data from sample 2 were collected with the same procedure from January to March 2015, this time in a different set of companies from those included in sample 1. In this case, 400 questionnaires were delivered, and 370 were given back, of which 32 were discarded (giving a response rate was 84.5 %).

Statistical Analysis

In order to construct the measure of psychological capital, two basic criteria were considered: a) the selection of the three most important items from each element of psychological capital in a bid to reduce the number of items, and b) that resulting elements were related to variables associated with this construct such a health and job satisfaction. In order to select the three items per psychological capital dimension, an Exploratory Factorial Analysis (EFA) was carried out with the data from sample 1, following a main axes extraction method and *oblimin* rotation with the software FACTOR 7.2 (Lorenzo-Seva & Ferrando, 2006).

Participants from sample 2 filled in the new psychological capital scale made up of the 12 selected items (three per dimension), and the results were analysed by means of the EQS 6.1 software, according to the structural equation model with the aim of verifying the validity of the construct. The statistic χ^2 was used for goodness of fit, however, other fit indicators were taken into account, such the absolute fit GFI (Goodness of Fit Index) and the relative fit CFI (Comparative Fit Index). As a rule, values over .90 indicate a good fit of the model, especially if they are above .95 (Hu & Bentler, 1999). The RMSEA (Root Mean Square Error of Approximation) index was also used, which demands a value <. 9 to indicate an adequate fit, recommending values of between .8 and .5 (Hu & Bentler, 1999).

Finally, using the software SPSS 21 and the data from sample 2, reliability was analysed by means of the Composite Reliability (CR), which measures the inner consistency of every indicator in connection with the construct they represent and the validity of the scale created. Average Variance Extracted (AVE) was used both for convergent and discriminant validity, with marks equal or over .50 suitably considered to represent the latent factor; it was then compared to the estimations of job satisfaction, health and psychosomatic symptoms. Two criteria were used for convergent validity (Hair, Black, Babin, Anderson & Tatham, 2006): for the first one, the latent variable of each ítem (λ) explains at least the 50 % of the total variance of the factor, and for the second one, the AVE indicates that the items as a whole represent the same construct. Regarding the discriminant validity, the square root of AVE was used. According to the criteria proposed by Fornell and Larcker (1981), the correlation of a construct with its items must be higher than the correlation established between them.

Results

The items were selected in order to measure psychological capital in sample 1. After completing an EFA, the three items of each dimension that had greatest factorial importance with regard to the psychological capital construct were chosen, except for optimism, where the three items that were chosen were the only three that make up the LOT-R scale. The Bartlett sphericity test and the Kaiser-Meyer-Olkin sample suitability test were satisfactory (see Table 1).

Table 1. AFE, Factorial Loads, Barlett test and Kaiser-Meyer-Olkin test for each of the components of Psychological Capital.

	Resilience	Factorial load	Hope	Factorial Load	Self-efficacy	Factorial Load	Optimism	Factorial Load
	RES12	.71	ESP12	.87	AUT4	.78	OPT1	.61
	RES18	.69	ESP11	.84	AUT7	.78	OPT4	.76
	RES11	.67	ESP10	.84	AUT8	.75	OPT10	.72
Barlett test	2297.23***		1062.28***		981.56***		196.28**	
Kaiser-Meyer-Olkin test	.91		.83		.91		.70	

RES: Resilience; ESP: Hope; AUT: Self-efficacy; OPT: Optimism. ***p < .001.

Table 2. Descriptive analysis of the 12 items of OREA Questionnaire.

	M	*SD*	*Skewness*	*Kurtosis*
OPT1	2.80	.76	-.23	.15
OPT4	3.05	.73	-.35	.08
OPT10	3.15	.73	-.51	.22
RES11	3.42	.77	-1.27	1.10
RES12	3.57	.73	-1.83	3.01
RES18	3.54	.71	-1.57	2.08
ESP10	3.50	.62	-1.17	1.81
ESP11	3.45	.66	-.97	.59
ESP12	3.59	.59	-1.29	1.30
AUT4	3.11	.66	-.48	.69
AUT7	3.02	.66	-.29	.22
AUT8	3.27	.59	-.42	.70

OPT: Optimisms; RES: Resilience; ESP: hope; AUT: Self-efficacy.

Once the 12 items were selected, a new measure called OREA (an acronym of the words for Optimism, Resilience, Hope, and Self-Efficacy in Spanish) was made and provided to the participants in sample 2, with whose data the follow-ing statistical analysis was made. First of all, a descriptive study of the OREA scale was conducted. Measures, standard deviations, and the skewness and kurtosis indexes of the items can be observed in Table 2. For latter analysis of structural equations, skewness and kurtosis values have to respect the condition of not being above 3 and 10, respectively, in the index (Kline, 2005), a requirement that was met.

Secondly, two different models of psychological capital were contrasted by means of a structural equation analysis. The first model hypothesised a structure of just one factor, that is that the 12 items make up a single dimension. The se-

cond model hypothesised that those items make up a structure of four main factors: optimism, resilience, hope and self-efficacy, plus another general factor of a lower order

made up of all of these four items. According to the results, which can be observed in Table 3, the adjustment indexes support the second model.

Table 3. Measurement Models using Structural Equation Modeling (SEM).

Model	x^2/gl	CFI	GFI	RMR	RMSEA
One-factor	3.62	.859	.890	.057	.094
Suitability	Acceptable	Poor	Poor	Good	Poor
Four-factor + second order factor	3.44	.946	.940	.022	.070
Suitability	Acceptable	Good	Good	Good	Good

Table 4. Composite Reliability (CR), *t* value and Average Variance Extracted (AVE).

Construct	Indicator	λ	t	CFC	AVE
Optimism	OPT 1	.66	7.47	.73	.50
	OPT 4	.81	4.45		
	OPT 10	.60	8.40		
Resilience	RES11	.73	7.23	.75	.52
	RES 12	.67	5.77		
	RES 18	.71	6.02		
Hope	ESP 10	.83	3.93	.89	.74
	ESP 11	.86	5.76		
	ESP 12	.89	4.97		
Self-Efficacy	AUT 4	.77	5.94	.82	.59
	AUT 7	.78	7.50		
	AUT 8	.77	7.33		

OPT: Optimism; RES: Resilience; ESP: Hope; AUT: Self-efficacy.

Reliability was then analysed by means of the CR, the results of which showed adequate indexes (see Table 4). A convergent validity estimate was made using, according to Hair *et al.* (2006), the following criteria: the latent variable of each item (λ) explains at least the 50 % of the factor total variance, λ is above .60, and *t* is above 1.96 for *p* <. 05, as is the AVE. All criteria were met, as shown in Table 4.

After this, the discriminant validity was assessed by means of AVE, the results of which were adequate. According to the proposal that psychological capital is a construct of higher order, however, the four elements have to be connected significantly with the selected variables (job satisfaction, general health and psychosomatic symptoms), and, being different constructs, their values must be below .50. For that purpose, a correlation analysis was made. As can be seen in Table 5, all correlations were statistically significant in the expected theoretical sense and below .50.

Table 5. Correlations of components of Psychological Capital, OREA questionnaire and job satisfaction, psychosomatic symptoms and health.

	M (SD)	OPT	RES	ESP	AU	OREA	JS	PSYS
Optimism	3.01 (.58)	**.70**						
Resilience	3.50 (.60)	..41**	**.70**					
Hope	3.51 (.57)	.33**	.38**	**.86**				
Self-efficacy	3.13 (.54)	.30**	.49**	.24**	**.78**			
OREA	3.29 (.41)	.71**	.80**	.69**	.69**			
Job Satisfaction	4.65 (1.06)	.31**	.42**	.22**	.22**	.41**		
Psychosomatic symtoms	2.49 (.90)	-.30**	-.31**	-.26**	-.24**	-.39**	-39**	
Health	1.78 (.44)	-.32**	-.36**	-.36**	-.26**	-.45**	-.40**	.56**

OPT: Optimism; RES: Resilience; ESP: Hope; AUT: Self-efficacy; OREA: Psychologial Capital. JS: Job Satisfaction. PSYS:Psychosomatic symptoms.
Bold the AVE square root of the components of Psychological Capital.
**p < .01

Discussion

The objective of this work was to design a measure of psychological capital for use in Spanish workers. The PCQ questionnaire, designed by Luthans *et al.* (2007), is the one most often used to measure psychological capital, however, in terms of content validity, the different PCQ items do not fit all categories of workers.

Based on this motivation, a measure containing the four dimensions of psychological capital was designed, starting from items of the most used scales that have been adapted to the Spanish population, mirroring the methods used by Luthans *et al.* (2007) in the construction of the PCQ. In this way, a 12 item –three items per dimension– questionnaire

was obtained and called the OREA. All reliability and validity indicators have shown favourable evidence.

Correlations between the four elements of psychological capital point out that they are positively and significantly associated with each other, reinforcing the idea of them being part of a single construct. These results are in line with Avey *et al.* (2011). At the same time, the intensity of these associations enables us to highlight the degree of multicollinearity.

The associations found with the measured variables are significant and they are in the theoretical sense indicated in other studies. Thus, the correlation is positive with job satisfaction (Larson & Luthans, 2006; Luthans *et al.*, 2007; Luthans *et al.*, 2008) and negative both with perceived ill health– indicating that the higher the psychological capital levels are, the better health they enjoy (as according to the

measure of health GHQ-12, the higher marks they got, the worse health perception they had) –and psychomatic symptoms, a result also in accordance with the previous findings (Avey *et al.*, 2010; Avey, Wernsing & Mhatre, 2011).

These results, obtained by means of structural equation, suggest that psychological capital is a construct of higher order, as was pointed out by Luthans *et al.* (2007). The Hobfoll Conservation of Resources Theory (2002) also provides additional support to this statement, as it highlights that individual resources such as, in this case, the elements of psychological capital, must be treated as a part of a global construct rather than separately. Moreover, these psychological resources have proven to have an interactive and synergistic nature (Luthans *et al.*, 2007).

As advised by Luthans (2002), an organisational psychological behaviour such as psychological capital must meet an array of operational criteria: (1) it must be based on theory and research, (2) it must have valid measures, (3) it must use unique concepts (Positive Organizational Behaviour is related to positive constructs that are relatively new in terms of their implementation in the workplace), (4) it must be open to development (this criterion means that the construct must be of state type, that is, situational and open to learning, change, and development, instead of representing a personality trait or dispositional type), (5) it must be administered to improve performance (Positive Organizational Behaviour deals with the workplace and how to implement the positive psychological capacity in order to improve human performance).

OREA, the measure of psychological capital that has been designed here, follows these guidelines and enables us to answer the second point, thus providing an adequate assessment instrument in the line of work focused on positive phenomena in organisations and on individual strengths that can help to foster greater development of the human potential of workers. Likewise, the idea of psychological capital supporting a higher construct of psychological capital and its main dimensions is reinforced, even starting from different measures from those used by Luthans *et al.* (2007).

Regarding the limitations of the study, firstly, it can be pointed out that the data have been collected by means of self-report. This is a common practice in studies that may lead to a bias in the response of participants, exacerbate common variance and artificially increase correlations between variables (Spector, 2006).

Secondly, both samples are made up of Spanish workers, who have their own cultural features. Therefore, the results obtained cannot be easily extrapolated to other samples in different countries. In accordance with this, Avey *et al.* (2011) observed that the magnitude of the psychological capital effect upon individual results differs according to the type of profession, and they call for studies to be conducted that are targeted to specific professional collectives.

Thirdly, a cross-sectional and correlational design was used. Although this is common in research, it still presents drawbacks: for example, the impossibility of establishing causal connections. These limitations lead to consideration of the convenience of using more sophisticated designs in future studies (Avey, Luthans & Mhatre, 2008).

In reference to future lines of research, it would be interesting to conduct intercultural or transnational studies in order to verify if the results obtained are similar to those of studies completed in other countries.

Finally, it is also worth pointing out the theoretical and practical implications of the results obtained. From theoretical point of view, the second order structure of psychological capital and its four elements is confirmed, once again. From a practical point of view, there is a measurement scale of psychological capital adapted to any kind of worker with adequate psychometric properties and with little time cost, which should be deeply interesting both for research and professional practice in human resources management. In this respect, it would be interesting to use it in different processes such as staff selection, training and development.

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Annex I. Measurement of Psychological capital: Orea questionnaire

Por favor, marque con una X el número que mejor represente su opinión acerca de las siguientes afirmaciones.

1 TOTALMENTE INCIERTO	2 APENAS INCIERTO	3 MÁS BIEN CIERTO	4 TOTALMENTE CIERTO				
1. En tiempos difíciles suelo esperar lo mejor (O)				1	2	3	4
2. Consigo alcanzar mis metas aunque haya obstáculos (R)				1	2	3	4
3. Pienso que mi vida tiene sentido (E)				1	2	3	4
4. Tengo confianza en que podría manejar eficazmente acontecimientos inesperados (A)				1	2	3	4
5. Cuando pienso en mi futuro siempre soy optimista (O)				1	2	3	4
6. Aunque las cosas vayan mal, no me rindo (R)				1	2	3	4
7. Creo que cada día es valioso (E)				1	2	3	4
8. Venga lo que venga, por lo general, soy capaz de manejarlo (A)				1	2	3	4
9. En general, espero que me ocurran más cosas buenas que malas (O)				1	2	3	4
10. Soy capaz de tomar decisiones difíciles (R)				1	2	3	4
11. Siento que mi vida tiene valor y merece la pena (E)				1	2	3	4
12. Puedo resolver la mayoría de los problemas si me esfuerzo lo necesario (A)				1	2	3	4

R: Resiliencia; E: Esperanza; A: Autoeficiacia; O: Optimismo.