

Assessment of Adaptive Performance and its Role as a Moderator of the Relationship Between Person-Organization Fit and Organizational Citizenship Behaviors

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Abstract

Background: Adaptive performance is of central interest for today's organizations, insofar as employees increasingly need to be able to adjust their behaviors to dynamic, changing work situations. The aims of this study were to develop a Spanish adaptation of Charbonnier-Voirin and Roussel's (2012) scale for measuring adaptive performance, and to examine whether the dimensions of adaptive performance moderate the relationship between person-organization fit (PO fit) and organizational citizenship behaviors (OCBs). We hypothesized that the relationship between PO fit and OCBs would be stronger in individuals with a higher level of adaptive performance. **Method:** The sample comprised 678 employees (65% women) in the public sector in the Basque Country. They ranged from 21 to 63 years old ($M = 44.63$; $SD = 7.66$). **Results:** The Spanish version of the scale has good psychometric properties. Furthermore, the Interpersonal Adaptability dimension of adaptive performance moderates the relationship between PO fit and OCBs directed both at the organization and at individuals, following the expected direction. The relationship between PO fit and OCBs directed at individuals was also moderated by the Reactivity in the Face of Emergencies dimension. **Conclusions:** We discuss the practical implications of these results in the field of personnel selection.

Keywords: Adaptive performance, person-organization fit, organizational citizenship behaviors, work performance, test adaptation.

Resumen

Evaluación del Desempeño Adaptativo y su Rol Moderador en la Relación Entre el Ajuste Persona-Organización y la Ciudadanía Organizacional. **Antecedentes:** el desempeño adaptativo es una variable crucial en las organizaciones actuales dado que la flexibilidad y la capacidad de adaptación son necesarias en un entorno laboral tan dinámico y cambiante como el actual. Los objetivos de este estudio fueron adaptar al castellano el instrumento de Charbonnier-Voirin y Roussel (2012), que mide el desempeño adaptativo y examinar si las dimensiones que configuran el desempeño adaptativo moderan la relación entre el ajuste persona-organización (PO fit) y las conductas de ciudadanía organizacional (OCBs). Se pronosticó que la relación entre PO fit y OCBs sería más intensa en aquellas personas con mayor desempeño adaptativo. **Método:** la muestra estuvo compuesta por 678 empleados/as (65% mujeres) del sector público del País Vasco, con edades comprendidas entre 21 y 63 años ($M = 44.63$; $SD = 7.66$). **Resultados:** los resultados muestran que la versión española de la escala posee buenas propiedades psicométricas. Además, la dimensión Adaptabilidad Interpersonal del desempeño adaptativo modera la relación entre el PO fit y las OCBs. En la predicción de las OCBs dirigidas a otros individuos, la Reactividad ante emergencias también modera la relación. **Conclusiones:** se discuten las implicaciones prácticas que pueden tener en el ámbito de la selección de personal los resultados derivados del estudio.

Palabras clave: desempeño adaptativo, ajuste persona-organización, ciudadanía organizacional, desempeño laboral, adaptación de tests.

Adaptive performance has become of growing interest and importance for organizations, insofar as new technologies and the restructuring of firms in response to financial crises mean that employees increasingly need to be able to adapt to changing work systems and roles (Koopmans et al., 2011; Landy & Conte, 2016). Pulakos et al. (2000) defined adaptive performance as the ability of individuals to adapt their behavior to a changing environment or the demands of a new situation or event, and they proposed what is

regarded as the most rigorous theoretical model of the concept to date (Baard et al., 2014). Based on this model, Charbonnier-Voirin and Roussel (2012) developed a scale for measuring adaptive performance that showed adequate psychometric properties. The scale considers five dimensions of adaptive performance applicable to all types of jobs within the framework of a solid conceptual model (Pini & Mariani, 2014; Walker, 2015).

Charbonnier-Voirin and Roussel (2012) developed their scale to overcome the limitations of the existing instruments. Alternative measures of adaptive performance are either too long or too short to adequately assess this domain; the items are not available, information on their psychometric properties is lacking, they focus on a very specific context, or they are not generalizable to all types of positions. Therefore, given the lack of instruments in Spanish for measuring adaptive performance and its importance

in the workplace (Ramírez, 2013), the first aim of this study was to develop a Spanish version of the scale created by Charbonnier-Voirin and Roussel (2012).

One predictor of individual work performance that is often used in personnel selection is person-organization fit (PO fit), that is, the compatibility between the characteristics of the individual (e.g., personality, values, goals or attitudes) and those of the organization (e.g., culture, climate, values, goals or norms) (Ostroff & Zhan, 2012; Ryan & Ployhart, 2014). However, its capacity to predict performance is modest, with a corrected mean correlation of .25 with organizational citizenship behaviors (OCBs) when PO fit is assessed with questionnaires focusing on fit in values (Hoffman & Woehr, 2006; Schmidt et al., 2016). Despite this, and even though PO fit is widely used in personnel selection, scant attention has been paid to identifying the factors or conditions that strengthen or weaken the relationship between PO fit and work performance, although some studies have suggested possible moderators of the relationship, including the individual's ability to adapt (Barrick & Parks-Leduc, 2019; De Cooman et al., 2019). Related to this, psychological empowerment, a construct that includes adaptive behaviors such as tolerance of unexpected situations, tolerance of differences in opinions and coping with stress, acts as a moderator between organizational commitment (a construct strongly correlated to PO-fit) and OCB (Farzaneh et al., 2014; Muduli, 2017).

In this context, Ployhart and Bliese (2006) proposed a theoretical model that places adaptive performance within the framework of a nomological network of antecedents (values, personality, etc.) and consequences (facets of job performance such as task performance and contextual performance), and thus promotes research on relationships and effects. According to this model, adaptability is a predictor of certain dimensions of work performance, such as task performance or OCBs (a construct very similar to contextual performance). These authors consider that each dimension of work performance requires adaptability on the part of individual employees, and to illustrate this they discuss how voluntarily helping coworkers (an example of OCB) may require adaptation to their changing behaviors, as might helping new colleagues from different organizational cultures.

OCBs are an important dimension of work performance in that they help to improve the effectiveness and management of organizations (Chiaburu et al., 2017; Organ, 2018; Podsakoff et al., 2009). These are behaviors that go beyond those required by a given role, and they have a positive impact on the workplace atmosphere by helping to create the psychological, social and organizational context necessary to carry out the formal responsibilities of the job (Dávila & Finkelstein, 2010). Research indicates that OCBs explain 73% of the variance in work performance (Chiaburu et al., 2017; Ramírez, 2013). Williams and Anderson (1991) distinguished between two broad types of OCBs according to the intended target: *OCBs directed at the organization (OCB-O)*, for example, proposing ideas to improve the functioning of the organization, and *OCBs directed at individuals (OCB-I)*, for example, helping a workmate with a personal problem or with a specific task (Dávila & Finkelstein, 2010).

In light of the above, we believe it is important to delve into the relationship between PO fit and OCBs, and to examine whether adaptive performance moderates this relationship. More specifically, and given that values are a direct determinant of adaptive performance (Ployhart & Bliese, 2006; Tucker et al., 2010), there is a need to explore whether, as Barrick and Parks-

Leduc (2019) suggest, the dimensions of adaptive performance moderate the relationship between PO fit and OCBs. This was the second aim of the present study. Based on the literature reviewed, our hypothesis was that adaptive performance would moderate the relationship between PO fit and OCBs, such that the relationship would be stronger among those individuals who scored higher on the different dimensions of adaptive performance. The confirmation of this hypothesis would provide evidence of validity based on relations to other variables, for the Spanish adaptation of the scale.

Method

Participants

The sample comprised 678 employees (65% women) from various public sector agencies in the Basque Country (northern Spain), all of whom participated voluntarily. They ranged in age from 21 to 63 years ($M = 44.63$; $SD = 7.66$). Mean time in the organization was 11.46 years ($SD = 9.71$; range = .08-43 years) and the mean job tenure was 7.71 years ($SD = 7.82$; range = .08-39 years).

Instruments

Adaptive performance was assessed using the scale developed by Charbonnier-Voirin and Roussel (2012), adapted into Spanish as part of the present study. The scale is rooted in the performance construct approach, which considers adaptive performance as a unique performance dimension in the same vein as task or contextual performance (Baard et al., 2014). The original scale comprises 19 items that measure five dimensions of adaptive performance (*Managing Work Stress, Training Effort, Interpersonal Adaptability, Reactivity in the Face of Emergencies, and Creativity*), with each item being rated on a 7-point Likert-type scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*). According to the authors, *Managing Work Stress* “corresponds to an individual’s ability to maintain his or her composure and to channel his or her team’s stress”; *Training Effort* “captures the tendency to initiate action to promote personal development”; *Interpersonal Adaptability* “represents employees’ ability to adjust their interpersonal style to work effectively with different others, whether within their own organization or in partner firms”; *Reactivity in the Face of Emergencies* “combines items that account for the ability to manage priorities and to adapt to new work situations”; and *Creativity* “represents the employees’ ability to find solutions for, or new approaches to, complex or previously unknown problems” (Charbonnier-Voirin & Roussel, 2014, p. 285). In the original version of the instrument, the five-factor model of the CFA presented an adequate fit. The internal consistency reliability (Jöreskog’s rho) of each of the five factors exceeded .70.

PO fit was measured using the Spanish adaptation (Cáceres, 2014) of the 5-item questionnaire developed by Piasentin (2007), on which each item is rated using a 5-point Likert-type scale, from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Internal consistency in the present sample was .69 (Cronbach’s alpha). The questionnaire measures supplementary adjustment (the similarity between the employees’ values and characteristics) from a direct perspective (employees themselves evaluate their adjustment to the organization) and its items focus on the consistency of the values held, in accordance with most research on PO-fit (Cáceres,

2014). Some examples of the items are: “My coworkers and I share the same workplace ethics” and “My values match those of current employees in my organization”.

OCBs were assessed with the 16 items originally employed by Lee and Allen (2002), but using here the Spanish versions developed by Dávila and Finkelstein (2010). Each item is rated on a 5-point Likert-type scale, from 1 (*Never*) to 5 (*Always*). This instrument assesses both types of OCBs (i.e., those directed at the organization, OCB-O, and those directed at individuals, OCB-I), with Cronbach’s alphas in the present sample being .80 and .77, respectively. Some examples of the items are: “Demonstrate concern about the image of the organization” (OCB-O), “Give up time to help others who have work or non-work problems” (OCB-I).

Procedure

The study was approved by the Ethics Committee for Research Involving Humans of the University of the Basque Country (UPV/EHU).

The adaptive performance scale developed originally by Charbonnier-Voirin and Roussel was adapted following the recommendations of Hambleton and Patsula (1999). Thus, after the translation and back translation process in which the final wording of items was agreed by consensus in a multidisciplinary team, we carried out cognitive interviews with 10 people (50% women; mean age = 48.6 years; $SD = 9.7$) and we piloted the Spanish version of the scale in a sample of 80 public sector employees (61% women) ranging in age from 23 to 63 years (mean = 46.01 years; $SD = 7.72$). In the cognitive interviews, the complexity and the degree of understanding of the items, specific words, the instructions and the task to be carried out were explored individually using an interview script. Participants in the pilot study were also asked about the complexity of the items and the terms used, and the extent to which they understood them. In this case, two open questions were added to the items of the scale. Based on suggestions made by participants in the cognitive interviews and in the pilot study, the team of translators reformulated items 13, 16 and 18 in order to facilitate their understanding. As part of the pilot study, item discrimination indices were also calculated; only item 10 yielded an index below .30. The wording of this item was consequently revised by the team of translators with the aim of improving its match to the corresponding theoretical dimension (*Managing Work Stress*). As this dimension comprises just three items in the original scale, and given that a problematic item could undermine the psychometric properties of our adaptation, we decided to add a further three items (items 20, 21, and 22) to this dimension before employing our scale in the validation sample. Another reason for adding these three new items, whose content was clearly related to managing work stress, was that the content of two of the three original items (items 10 and 15) could link them to the *Interpersonal Adaptability* dimension. The three new items were derived from items that had been included by Charbonnier-Voirin and Roussel (2012) in the initial version of their scale, but which were not part of the final 19-item instrument.

The instruments were completed in the following order: Spanish version (Dávila & Finkelstein, 2010) of the 16 items used by Lee and Allen (2002) to assess OCBs; Spanish adaptation (Cáceres, 2014) of the questionnaire employed by Piasentin (2007) to evaluate PO fit; and Spanish version (derived from the pilot phase of the present study) of the scale developed by Charbonnier-Voirin

and Roussel (2012) to assess adaptive performance. Participants completed the measures in their respective workplaces, in each case collectively under conditions that ensured anonymity.

Data Analysis

Analysis of dimensionality and construct validity of the adaptive performance scale

To obtain evidence of validity based on the internal structure of the test we tested two confirmatory factor analysis (CFA) models and an exploratory structural equation model (ESEM) with the WLSMV method of estimation and target rotation. In some measures linked to psychological variables, it is normal that the data do not present an adequate fit to the theory in CFA because the items are not usually pure indicators of a single factor (Marsh et al., 2014). For this reason, the CFA was complemented with ESEM, which is less restrictive with regard to measuring the factor structure and integrates the best aspects of CFA, Structural Equation Models and Exploratory Factor Analysis (EFA), providing confirmatory tests of a priori factor structures (Marsh et al., 2014). Furthermore, the target rotation is particularly appropriate when there is a clearly defined a priori factor structure (Marsh et al., 2014). Regarding these statistical analyses, beyond the technical, methodological and instrumental developments, Ferrando (2021) emphasizes the importance of the design, the theoretical basis and the interpretation of the results. The author claims that if researchers were capable of breaking down the rigid and dogmatic distinction between EFA (fully unrestricted solution) and CFA (totally restricted solution) they would find a wide range of possibilities that would allow them to carry out data analyses that would better fit the characteristics of their research. It should also be noted that two items on the scale were reversed items. In a recent article, Vigil-Colet et al. (2020) proposed a method to control the undesirable effects of these items while maintaining their positive effect for controlling acquiescence when analyzing the dimensionality and reliability of an assessment tool. We did not consider it necessary to apply this method because we had only two reversed items, both of which presented good discrimination indices and means similar to those of the direct items.

Model fit was evaluated using the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). For an acceptable fit, the rules of thumb are: TLI and CFI $\geq .90$; RMSEA $\leq .08$ (Hu & Bentler, 1999).

Item response analysis

In order to evaluate the items’ functioning in accordance with Item Response Theory (IRT), and taking into account the character of the items, we used Samejima’s (1969) Graded Response Model (GRM). We calculated the slope parameter (a) and threshold parameters (b_1 to b_6) of each item, as well as the fit of each item to the GRM using $S-\chi^2$ index (Orlando & Thissen, 2003). Items with a discrimination parameter $\geq .65$ were taken as showing acceptable functioning (Baker, 2001). We considered that the item fitted the GRM if $p > .01$ (Toland, 2014).

Assessment of reliability

In accordance with the analyses conducted by Charbonnier-Voirin and Roussel (2012) when developing the original scale,

we calculated Jöreskog's rho as a measure of reliability in terms of internal consistency. We also computed Cronbach's alpha, McDonald's omega, and the marginal reliability index based on IRT. The temporal stability of scale dimensions was examined by test-retest and calculation of Pearson's correlation coefficients, with a sub-sample of 151 participants completing the adaptive performance scale a second time one month after the original administration.

Analysis of the relationship between PO fit and OCBs, with adaptive performance as a moderator variable

Regression models were used to determine whether the dimensions of adaptive performance moderate the relationship between PO fit and OCBs. To reduce the possible effect of non-essential multicollinearity, the independent variables were centered on the mean prior to calculating the interaction terms. These analyses helped to provide evidence of validity based on relations to other variables, for the Spanish adaptation of the scale.

Before applying the regression models, we calculated descriptive statistics and correlations between the variables.

Statistical analyses were performed using Mplus, IRTPRO, and SPSS. For the regression analyses, we used the PROCESS macro (Hayes, 2013).

Results

Dimensionality and Construct Validity

The CFA indicated a better fit for the five-factor model, $\chi^2(199) = 1862.62, p < .01$; RMSEA = .11; CFI = .87; TLI = .84, than for the model with a single dimension, $\chi^2(209) = 2992.17, p < .01$; RMSEA = .14; CFI = .78; TLI = .75. However, the fit was not good. We therefore proceeded to carry out an ESEM analysis, which yielded the following results for the model with five dimensions: $\chi^2(131) = 519.77, p < .01$; RMSEA = .07; CFI = .97; TLI = .95. In this case, the data showed a good fit to the model.

Table 1 shows the loading of items on the different dimensions in the ESEM analysis. The median value of the primary factor loadings was .57, whereas the median of secondary loadings was .05. With the exception of items 10 (*Managing Work Stress*), 13 (*Interpersonal Adaptability*), and 15 (*Managing Work Stress*) all the items had a statistically significant loading that was above the recommended threshold of .30 on their corresponding theoretical dimension. It can be seen in the table that item 7 had a loading above 1 on its theoretical dimension (*Reactivity in the Face of Emergencies*). However, if the factors are correlated, the factor loadings are regression coefficients and not correlations, and hence they can be greater than 1 in magnitude (Jöreskog, 1999). Also of note in the table is that the three items we added to the *Managing Work Stress* dimension (items 20, 21, and 22) yielded high factor loadings of greater magnitude than those of the other items belonging to this dimension, which supports their inclusion in the Spanish version of the scale.

Item response analysis

Table 2 shows the parameters of the Graded Response Model. It can be seen that all the items showed adequate discrimination. However, items 10, 13, 17 and 20 did not present a good fit to

the GRM ($p < 0.01$). Regarding the difficulty parameters, the b values for each item are in ascending order, indicating that their functioning was adequate.

Reliability

Table 3 shows the internal consistency coefficients for the five dimensions of the adapted scale. The median values of the rho and alpha coefficients were .77 and .74, respectively, which may be considered adequate, while the medians for the omega coefficient and marginal reliability index were .84 and .82, respectively, considered high. The median value for the test-retest coefficient over a one-month interval was .75, which may be interpreted as adequate. Item-total correlations ranged between .42 and .71, except for item 10 whose correlation was .30.

Relationship between PO Fit and OCBs, with Adaptive Performance as Moderator Variable

As noted in the Data Analysis section, prior to applying the regression models to test the main study hypothesis, we calculated descriptive statistics and the correlations between the variables (see Table 3). The means of the variables obtained in this study were similar to those reported in the validations of the original instruments (Cáceres, 2014; Charbonnier-Voirin & Roussel, 2012; Dávila & Finkelstein, 2010).

With OCB-I as the criterion, and as can be seen in tables 5 to 9, the interactions between PO fit and *Interpersonal Adaptability* ($B = .05, t = 2.16, p < .05$) and between PO fit and *Reactivity in the Face of Emergencies* ($B = .04, t = 2.21, p < .05$) were statistically significant. With OCB-O as the criterion, the interaction was only significant between PO fit and *Interpersonal Adaptability* ($B = .05, t = 2.59, p < .01$).

In those cases where the interaction was statistically significant, we plotted the conditional slopes at high, intermediate, and low levels of the independent variable and the moderator variables (Figures 1-3).

Discussion

The first objective of this study was to develop, using both qualitative and quantitative methods, a Spanish adaptation of Charbonnier-Voirin and Roussel's (2012) scale for assessing adaptive performance. A multidisciplinary team first employed the back translation method to produce a Spanish version, which was then subjected to a series of qualitative and quantitative analyses. Regarding qualitative analyses, cognitive interviews and a pilot study were used to evaluate the complexity of the items and the terms used and the extent to which the participants understood them, the instructions, and the task to be carried out. Quantitative analyses were used to evaluate item functioning, to examine internal consistency and temporal stability, and to obtain evidence of dimensionality, construct validity, and validity based on relations to other variables.

The analysis of dimensionality supported the internal structure of five dimensions (*Managing Work Stress*, *Training Effort*, *Interpersonal Adaptability*, *Reactivity in the Face of Emergencies*, and *Creativity*) that was proposed by the authors of the original scale. The majority of items yielded good loadings on their corresponding theoretical dimension, and those items that were problematic in terms of their factor loading (items 10, 11, 13, and

Table 1
Factor loadings in the exploratory structural equation model (ESEM)

Item	Dimensión	F1	F2	F3	F4	F5
5. <i>Conservo la calma en las situaciones en las que debo tomar muchas decisiones</i> [I keep my cool in situations where I am required to make many decisions]	MWS	.50	-.14	.13	.14	.17
10. <i>Busco soluciones discutiendo con tranquilidad con mis colegas</i> [I look for solutions by having a calm discussion with colleagues]	MWS	.13	-.01	.46	-.08	.33
15. <i>Cuando las situaciones son difíciles, normalmente mis colegas me piden consejo debido a mi auto-control</i> [My colleagues ask my advice regularly when situations are difficult because of my self-control]	MWS	.28	-.02	.03	.14	.50
20. <i>Me siento tranquilo/a incluso si mis tareas cambian o se presentan muy rápidamente</i> [I feel at ease even if my tasks change and occur at a very fast pace]	MWS	.71	.08	.04	.10	-.07
21. <i>Tener que asumir un trabajo extra de manera inesperada me pone nervioso/a</i> [Having to take on additional work unexpectedly makes me anxious]	MWS	.92	-.02	-.14	-.11	-.04
22. <i>El estrés ocasionado por mi trabajo repercute en la calidad de lo que hago</i> [Work-related stress impacts the quality of what I do]	MWS	.69	.02	-.09	-.03	-.19
4. <i>Me formo con regularidad dentro o fuera del trabajo para mantener al día mis competencias</i> [I undergo training on a regular basis at or outside of work to keep my competencies up to date]	TE	.07	.71	-.08	-.01	.13
9. <i>Estoy atento/a a las últimas innovaciones en mi profesión para mejorar mi forma de trabajar</i> [I am on the lookout for the latest innovations in my job to improve the way I work]	TE	.08	.67	-.11	.01	.28
14. <i>Busco todas las oportunidades que me permiten mejorar mi desempeño –formación, grupos de trabajo, intercambios con mis colegas, etc.–</i> [I look for every opportunity that enables me to improve my performance –training, group project, exchanges with colleagues, etc.–]	TE	-.07	.80	.19	.02	.00
19. <i>Me preparo para el cambio participando en cada proyecto o tarea que me permita hacerlo</i> [I prepare for change by participating in every project or assignment that enables me to do so]	TE	.14	.46	.37	.09	-.08
3. <i>Desarrollar buenas relaciones con todos mis interlocutores es un elemento importante de mi eficacia</i> [Developing good relationships with all my counterparts is an important factor of my effectiveness]	IA	.04	-.01	.58	.09	.01
8. <i>Intento entender los puntos de vista de mis interlocutores/as para poder interactuar mejor con ellos/as</i> [I try to understand the viewpoints of my counterparts to improve my interaction with them]	IA	.06	.01	.58	.04	.14
13. <i>Aprendo nuevas maneras de hacer mi trabajo para colaborar con otras personas</i> [I learn new ways to do my job in order to collaborate better with others]	IA	-.02	.54	.22	.17	.07
18. <i>Adecío mi comportamiento cuando lo necesito para trabajar bien con otros/as</i> [I adapt my behavior whenever I need to in order to work well with others]	IA	.10	.10	.55	.15	-.08
2. <i>Consigo centrar toda mi atención en la situación para actuar rápidamente</i> [I am able to achieve total focus on the situation to act quickly]	RE	.15	-.07	.17	.46	.05
7. <i>Decido rápidamente las acciones a llevar a cabo para resolver problemas</i> [I quickly decide on the actions to take to resolve the problem]	RE	-.08	-.14	-.09	1.06	.02
12. <i>Analizo rápidamente las posibles soluciones y sus implicaciones para elegir la más apropiada</i> [I analyze possible solutions and their ramifications quickly to select the most appropriate one]	RE	-.05	.05	.01	.80	.02
17. <i>Reorganizo fácilmente mi trabajo para adaptarme a las nuevas circunstancias</i> [I easily reorganize my work to adapt to the new circumstances]	RE	.28	.11	.16	.40	-.09
1. <i>No dudo en cuestionar ideas establecidas para proponer una solución innovadora</i> [I do not hesitate to go against established ideas to propose an innovative solution]	CRE	.03	.06	.05	.12	.40
6. <i>En mi departamento la gente cuenta conmigo para proponer nuevas soluciones</i> [Within my department, people rely on me to suggest new solutions]	CRE	.10	-.06	.10	.04	.64
11. <i>Utilizo fuentes de información muy variadas para encontrar una solución innovadora</i> [I use a variety of sources/types of information to come up with an innovative solution]	CRE	.10	.40	.03	.09	.36
16. <i>Desarrollo nuevas herramientas y métodos para resolver problemas nuevos</i> [I develop new tools and methods to resolve new problems]	CRE	.08	.24	-.04	.21	.46

Note: Item loadings on the corresponding theoretical dimension (primary factor loadings) are shown in bold. MWS = Managing Work Stress; TE = Training Effort; IA = Interpersonal Adaptability; RE = Reactivity in the Face of Emergencies; CRE = Creativity

15) showed a satisfactory level of discrimination from the point of view of IRT. In addition, the reliability analysis yielded acceptable indices of internal consistency (evaluated in several ways) and temporal stability.

Regarding the second study objective, the results provide evidence to support that adaptive performance moderates the relationship between PO fit and OCBs, with this relationship being stronger among employees with moderate or high scores on the dimensions *Interpersonal Adaptability* and *Reactivity in the Face of Emergencies* (in the latter case, only with respect to the relationship

between PO fit and OCB-I). The study hypothesis is thus partially confirmed, and in addition to providing some evidence of validity based on relations to other variables for the Spanish adaptation of the scale, the results help to clarify the relationship between PO fit and work performance.

The moderating role of *Interpersonal Adaptability* may be related to the ability to work effectively with a wide range of coworkers that is implied in this dimension. Employees with high scores on *Interpersonal Adaptability* tend to consider different opinions and points of view, and to adapt to various personalities, which may

Table 2
Graded Response Model parameter estimates

Item	Dimension	a	b ₁	b ₂	b ₃	b ₄	b ₅	b ₆	χ ²
5	MWS	1.69	-3.44	-2.33	-1.69	-0.51	1.53		70.17
10	MWS	0.75	-9.02	-7.17	-4.89	-3.27	-1.09	2.36	114.41*
15	MWS	1.08	-4.71	-3.01	-2.10	-0.24	0.99	3.21	98.76
20	MWS	2.55	-3.69	-2.16	-1.22	-0.76	0.17	1.56	102.68*
21R	MWS	1.97	-2.78	-1.52	-0.58	-0.14	0.49	1.89	73.95
22R	MWS	1.20	-3.18	-1.89	-0.69	-0.21	0.44	2.28	106.10
4	TE	2.27	-3.51	-2.48	-1.94	-1.43	-0.55	0.78	57.42
9	TE	2.30	-3.45	-2.60	-1.94	-1.26	-0.38	1.09	60.51
14	TE	2.97	-3.35	-2.69	-1.97	-1.20	-0.36	0.82	56.13
19	TE	1.51	-4.64	-3.56	-2.76	-1.67	-0.50	1.44	59.57
3	IA	1.66	-4.03	-3.85	-2.45	-1.39	0.36		33.34
8	IA	1.93	-3.69	-2.99	-2.64	-1.42	0.58		32.00
13	IA	1.25	-4.91	-4.09	-3.00	-1.72	-0.37	1.89	92.80*
18	IA	1.60	-4.37	-3.34	-2.43	-0.84	1.32		41.15
2	RE	1.56	-4.86	-3.70	-2.97	-2.01	-0.80	1.56	63.88
7	RE	3.40	-3.12	-2.34	-1.55	-0.90	0.09	1.50	41.66
12	RE	2.88	-3.55	-2.72	-1.87	-1.06	-0.11	1.42	49.69
17	RE	1.44	-4.16	-2.94	-2.03	-0.51	1.63		69.28*
1	CRE	1.24	-4.78	-3.28	-2.43	-1.69	-0.44	1.61	53.41
6	CRE	1.56	-4.10	-2.88	-2.32	-1.15	-0.30	1.54	56.39
11	CRE	1.75	-4.31	-2.98	-2.31	-1.17	-0.12	1.34	72.45
16	CRE	2.19	-2.98	-2.11	-1.40	-0.38	0.56	1.93	69.42

Note: MWS = Managing Work Stress; TE = Training Effort; IA = Interpersonal Adaptability; RE = Reactivity in the Face of Emergencies; CRE= Creativity; a = Slope parameter; b₁ ... b₆ = Threshold parameters. * p<.01

Table 3
Reliability (internal consistency and test-retest coefficients)

Dimension	Jöreskog's rho	Cronbach's alpha	McDonald's omega	Marginal reliability index	Test-retest (Pearson)
MWS	.77	.74	.79	.82	.75
TE	.83	.81	.85	.83	.82
IA	.67	.66	.98	.71	.70
RE	.79	.78	.84	.84	.75
CRE	.73	.72	.76	.77	.66

Note: MWS = Managing Work Stress; TE = Training Effort; IA = Interpersonal Adaptability; RE = Reactivity in the Face of Emergencies; CRE = Creativity

enable them to help others to cope with common problems, a key aspect of OCB-I. Furthermore, interpersonal attraction may be linked conceptually to *Interpersonal Adaptability* (Edwards and Cable, 2009); this would explain why there is a stronger positive relationship between PO fit and OCBs directed at individuals among employees with moderate or high scores on *Interpersonal Adaptability*. Similarly, the relationship that Edwards and Cable (2009) found between interpersonal attraction and trust in the organization might explain the moderating effect of *Interpersonal Adaptability* on the relationship between PO fit and OCB-O.

As for the moderating role of *Reactivity in the Face of Emergencies*, this may be explained by the link between perceived social support and control expectancies in ambiguous or stressful situations. Individuals who tend to tolerate uncertainty well also

Table 4
Descriptive statistics and intercorrelations between variables

Variable	M	SD	1	2	3	4	5	6	7	8
1. MWS	30.03	5.25	(.74)							
2. TE	22.55	3.62	.38**	(.81)						
3. IA	23.63	2.51	.47**	.59**	(.66)					
4. RE	22.02	3.13	.54**	.41**	.53**	(.78)				
5. CRE	21.16	3.58	.45**	.56**	.50**	.52**	(.72)			
6. PO fit	19.03	3.04	.26**	.21**	.32**	.22**	.20**	(.69)		
7. OCB-O	29.90	4.05	.40**	.41**	.47**	.48**	.57**	.25**	(.80)	
8. OCB-I	28.60	4.22	.33**	.36**	.46**	.43**	.43**	.26**	.73**	(.77)

Note: N = 678. Internal consistency coefficient for the variables is shown in brackets. MWS = Managing Work Stress; TE = Training Effort; IA = Interpersonal Adaptability; RE = Reactivity in the Face of Emergencies; CRE = Creativity; OCB-O = OCBs directed at the organization; OCB-I = OCBs directed at individuals. ** p < .01

Table 5
Moderator effect of Managing Work Stress on the relationship between PO fit and OCBs

Variable	OCB-I				OCB-O					
	B	SE	t	95% CI		B	SE	t	95% CI	
				LL	UL				LL	UL
PO fit	.26	.07	3.96**	.13	.39	.21	.06	3.72**	.10	.31
MWS	.22	.03	6.76**	.16	.29	.27	.03	8.96**	.21	.33
PO fit x MWS	.01	.01	0.90	-.01	.03	.01	.01	.80	-.01	.03
Multiple R			.38					.43		
R ²			.14					.18		
F			32.09**					43.50**		

Note: N = 644. Bootstrap sample size = 5000; B = unstandardized coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. **p < .01; MWS = Managing Work Stress

Table 6
Moderator effect of Training Effort on the relationship between PO fit and OCBs

Variable	OCB-I				OCB-O					
	B	SE	t	95% CI		B	SE	t	95% CI	
				LL	UL				LL	UL
PO fit	.26	.06	4.16**	.14	.39	.22	.06	3.88**	.11	.33
TE	.38	.05	7.82**	.29	.48	.43	.04	9.68**	.35	.52
PO fit x TE	.02	.02	.88	-.02	.05	.02	.01	1.32	-.01	.05
Multiple R			.41					.45		
R ²			.17					.20		
F			34.05**					47.85**		

Note: N = 644. Bootstrap sample size = 5000; B = unstandardized coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. **p < .01; TE = Training Effort

Table 7
Moderator effect of Interpersonal Adaptability on the relationship between PO fit and OCBs

Variable	OCB-I				OCB-O					
	B	SE	t	95% CI		B	SE	t	95% CI	
				LL	UL				LL	UL
PO fit	.16	.06	2.49**	.03	.28	.13	.06	2.25*	.02	.24
IA	.74	.08	9.27**	.59	.90	.74	.07	11.25**	.61	.87
PO fit x IA	.05	.02	2.16*	.00	.10	.05	.02	2.59**	.01	.09
Multiple R			.49					.49		
R ²			.24					.24		
F			13.68**					62.12**		
Conditional effects at levels of IA										
(-1SD)	.03	.08	.33	-.14	.19	.00	.08	-0.02	-.16	.15
M	.16	.06	2.49**	.03	.28	.13	.06	2.25*	.02	.24
(+1SD)	.29	.09	3.16**	.11	.47	.25	.07	3.64**	.12	.39

Note: N = 644. Bootstrap sample size = 5000; B = unstandardized coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. *p < .05 **p < .01; IA = Interpersonal Adaptability

tend to initiate cooperative behaviors with others and to seek help in order to create a supportive environment for dealing with change and challenges at work (Quick et al., 2001). Our results are consistent with this theoretical link between control over

unexpected situations and the search for interpersonal support, insofar as the relationship between PO fit and OCB-I was stronger among employees with moderate or high scores on *Reactivity in the Face of Emergencies*.

Table 8
Moderator effect of Reactivity in the Face of Emergencies on the relationship between PO fit and OCBs

Variable	OCB-I				OCB-O					
	B	SE	t	95% CI		B	SE	t	95% CI	
				LL	UL				LL	UL
PO fit	.23	.06	3.59**	.10	.35	.20	.05	3.65**	.09	.30
RE	.52	.05	9.68**	.41	.63	.58	.05	12.57**	.49	.67
PO fit x RE	.04	.02	2.21*	.00	.07	.02	.01	1.08	-.01	.05
Multiple R			.47					.51		
R ²			.22					.26		
F			49.04**					68.92**		
Conditional effects at levels of RE										
(-1SD)	.11	.09	1.23	-.06	.28					
M	.23	.06	3.59**	.10	.35					
(+1SD)	.35	.08	4.27**	.19	.51					

Note: N = 644. Bootstrap sample size = 5000; B = unstandardized coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. *p < .05; **p < .01; RE = Reactivity in the Face of Emergencies

Table 9
Moderator effect of Creativity on the relationship between PO fit and OCBs

Variable	OCB-I				OCB-O					
	B	SE	t	95% CI		B	SE	t	95% CI	
				LL	UL				LL	UL
PO fit	.25	.06	3.96**	.13	.38	.18	.05	3.56**	.08	.28
CRE	.47	.05	9.24**	.32	.52	.62	.05	13.05**	.53	.72
PO fit x CRE	.03	.02	1.90	.00	.06	.03	.02	1.70	.00	.06
Multiple R			.47					.59		
R ²			.22					.35		
F			45.30**					81.35**		

Note: N = 644. Bootstrap sample size = 5000; B = unstandardized coefficient; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. **p < .01; CRE = Creativity

Although they were not the main focus of the study, it should be noted that the direct relationships between adaptive performance dimensions and OCBs were of medium-high size, which coincides with the findings of Charbonnier-Voirin and Roussel (2012). According to Murphy (2015), this is because both constructs include skills for assessing the situation and for using information to adjust behaviors effectively. By dimensions, the effect of Creativity on OCB-O can be explained by the importance that people with high OCB-O scores attach to commitment to the organization, which may lead them to make a special effort to try to solve atypical, poorly defined or complex problems that involve creativity. Creativity is also strongly related to altruism and courtesy, behaviors that fall under the umbrella of OCB-I (Obiora & Okpu, 2015). Managing Work Stress behaviors are associated with both OCB-I and OCB-O through their calming effect on others and the demonstration of individual resilience. Similarly, Learning effort implies an enthusiasm that could be contagious and beneficial for the organization through the improvement of deficient performance. Finally, Reactivity in the face of emergencies implies an ability to manage priorities and analyze options, which may promote OCB-O (Charbonnier-Voirin & Roussel, 2012).

Research by Echchakoui (2013), based on the I-ADAPT theoretical model of Ployhart and Bliese (2006), indicated that adaptive behaviors, along with other variables of interest in organizational psychology, play an important role in explaining and supporting employees' performance. In this respect, our results here provide further support for Ployhart and Bliese's (2006) theory.

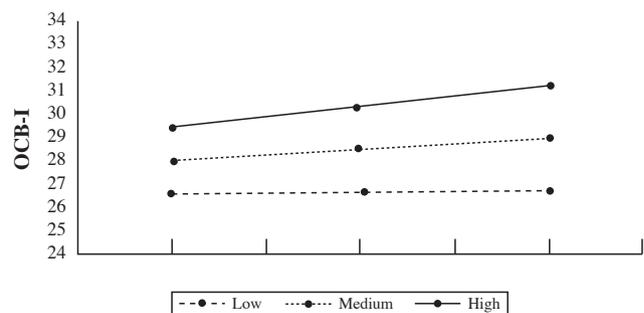


Figure 1. Interaction between PO FIT and Interpersonal Adaptability predicting OCB-I

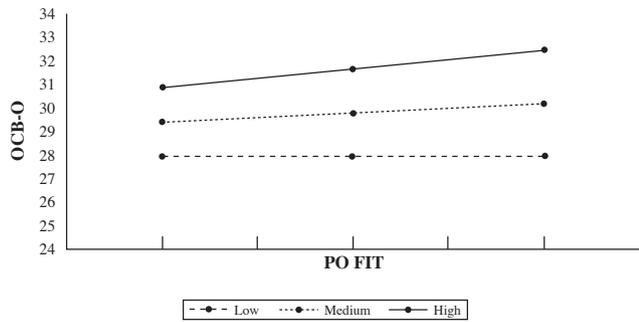


Figure 2. Interaction between PO fit and Interpersonal Adaptability predicting OCB-O

Our findings also support a point made by Cullen et al. (2014), namely that selecting candidates who score high on adaptability can be crucial for identifying those who will be productive and whose performance will match the objectives of the organization. Indeed, given that meeting objectives can be challenging in a changing environment such as that which characterizes today's workplace, organizations should, during the selection process, look favorably on those candidates with a dispositional tendency to adapt in the face of change.

The study has some limitations. The data were obtained through a cross-sectional research design and in a non-selective context. This may have modified the size of the correlations between .05 and .10 compared to those obtained through predictive validity designs in selective contexts. In addition, participants were public sector workers, and so the results cannot be generalized to the private sector context. Furthermore, the data were collected through self-report performance measures. Although it should be noted that the studies by Demerouti et al. (2014) and Conway and Lance (2010), as well as the meta-analysis by Carpenter et al. (2014), indicate that self-appraisals may be the best approach of measuring OCBs, appraisals by coworkers or managers would have provided a complementary perspective. As regards the possible effect of common method variance (CMV), interaction effects cannot, as Siemsen et al. (2010) point out, be artifacts of CMV, and in fact they are likely to be deflated through CMV, making them more difficult to detect. Finally, it should be noted that the adaptation

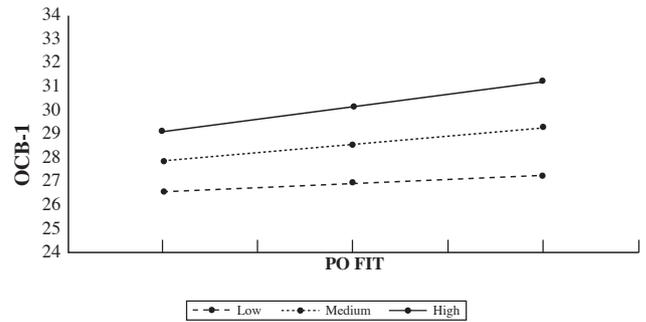


Figure 3. Interaction between PO fit and Reactivity in the Face of Emergencies predicting OCB-I

process would have improved if adaptive performance had been measured using different instruments or methods and establishing correlations between these measures. This would have provided evidence of the convergent validity of the Spanish adaptation of the scale.

In future research, it would be interesting to use predictive validity designs in order to examine whether the moderating role and direct effects of adaptive performance are maintained over time. It would also be interesting to try to replicate the results using samples from the private sector and collecting evaluations from coworkers and managers. In addition, since obtaining evidence of validity of an instrument is an open process, this objective should be pursued in future studies. Finally, another possible line for research would be the study of the relationship between PO fit, adaptive performance and another relevant facet of job performance, task performance. In fact, task performance is an integral part of the theoretical model of Ployhart and Bliese (2006).

To conclude, in addition to providing a reliable and valid instrument for measuring the important construct of adaptive performance in the Spanish population, the present study has practical implications for work and organizational psychology, insofar as the models proposed bring greater clarity to the relationship between PO fit, the dimensions of adaptive performance, and the two broad types of OCBs. Our findings may therefore help organizations to select the best employees for today's demanding and changing workplace.

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