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Validation of a Work Engagement Scale. Profiles associated with high Performance and Job Satisfaction

Validación de una Escala sobre *Work Engagement*. Perfiles asociados a alta Performance y Satisfacción Laboral

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Abstract: The aim of this paper was to validate a scale to assess work engagement: a measure of a psychological aspect of the role that includes the attention, absorption and energy that the individual invests in his/her work tasks. Confirmatory factor analysis, internal consistency estimation, and evidences of convergent and discriminant validity indicated that the Argentine Work Engagement Scale is a valid and reliable measure to be used in Argentinean population. Additionally, differences in work engagement levels were studied regarding individual and organizational variables. Higher levels of work engagement were found in younger individuals and in those who were in charge of personal. Lastly, some engagement profiles were found to be associated to higher performance and job satisfaction.

Key Words: engagement, work satisfaction, performance, work psychology, organizational psychology

Resumen: El objetivo principal de este estudio consistía en la validación de una escala para la evaluación del *work engagement* -compromiso con el trabajo-, considerado como una presencia psicológica en el rol que incluye atención, absorción y energía dirigida a tareas laborales. Mediante análisis factorial confirmatorio, estimación de la consistencia interna y evidencias de validez convergente y discriminante, se confirma que la *Escala Argentina de Compromiso con el Trabajo* es una prueba válida y confiable para su uso en población argentina. Además, se buscó analizar si existen diferencias en los niveles de work engagement de acuerdo con variables individuales y organizacionales. Se observaron mayores niveles de atención y absorción en sujetos de menor edad y menores niveles de atención en empleados con personal a cargo. Por último, se identificaron perfiles de *engagement* asociados a alta performance y satisfacción laboral.

Palabras clave: *engagement*, satisfacción laboral, performance, psicología laboral, psicología organizacional

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The purpose of this study was to validate a scale to assess work engagement. In recent years, the interest in studying this topic has increasingly grown due to its central role in achieving good results for both the employee and the organization as a whole (Rothbard & Patil, 2012).

From the *Positive Organizational Scholarship* (POS) - initiated by Dutton, Cameron and Quinn (Cameron & Spreitzer, 2012) - the analysis of phenomena such as employee´s engagement, job satisfaction or organizational commitment was proposed. These topics have not been adequately addressed previously, due to the emphasis placed on the study of negative aspects and their consequences for organizations (Lupano Perugini, 2014).

The definition of *work engagement* has been largely discussed in the field of POS (Bakker, Schaufeli, & Leiter, 2008). Several authors point out inconsistencies in the definitions provided, as well as in the instruments developed for its assessment (e.g. Christian, Garza & Slaughter, 2011; Hirschfeld & Thomas, 2008; Jeung, 2011; Macey & Schneider, 2008; Masson, Royal, Agnew & Fine, 2008; Nienaber & Martins, 2014; Robertson & Cooper, 2010; Rothbard & Patil, 2012; Schaufeli & Salanova, 2011; Viljevac, Cooper-Thomas & Saks, 2012). Such a variety of definitions leads to a series of studies whose results are not able to be comparable or generalizable (Nienaber & Martins, 2014; Vilijevak et al., 2012).

Most aforementioned researchers consider that work engagement is a multidimensional construct that can be confused with other related constructs -such as, organizational commitment, job satisfaction, or job involvement - but the main issue is the lack of agreement regarding the dimensions that conform this concept. The present study is based on the conceptualization proposed by Rothbard and Patil (2012), which gathers the most significant antecedents about this construct. These authors argue that rather than an organizational variable, this is an individual-level variable, defined as 'a psychological presence in the role - 'being there'. It includes the individual's attention, absorption and energy directed towards work-related tasks (p.59). Therefore, this definition takes into account dimensions such as *attention* - which refers to the motivational resources that a person can apply to a given task - *absorption* - which refers to the capacity of applying those resources with intensity - and *energy* - that consists of a physical component that can be directed to the task. Attention and absorption represent the cognitive subcomponents of the construct, while energy depicts the physical subcomponent (Rothbard, 2001).

Regarding the most relevant antecedents of the definition of work engagement, Kahn's studies (1990, 1992) served as the basis to describe it as a state that denotes the individual's psychological presence in his/her role. Subsequently, several studies have analyzed the composition of the construct. For example, Rothbard (2001) was the first to suggest the attention and absorption dimensions. Another significant antecedent is Maslach, Schaufeli and Leiter's work (2001), that defines work engagement as the opposite of burnout, both concepts located at the end of a continuum that ranges from the negative pole, characterized by fatigue, stress, cynicism and depersonalization at work, to the positive pole, depicted by energy, commitment, involvement and sense of belonging.

Later, Schaufeli and Bakker (2004) reviewed this approach as, from their point of view; engagement does not necessarily imply the opposite of burnout. Consequently, three dimensions were proposed: *vigor* - that implies high levels of mental energy and resilience - *dedication* - that refers to being challenged and inspired by work - and *absorption* - that refers to the full concentration on one's work. Although many studies have used this approach, others have criticized their theoretical dependence on the notion of burnout, as some of the dimensions proposed by Schaufeli and Bakker overlap with other constructs, such as positive affect (Zhang, Rich & LePine, 2009). Rich and colleagues have taken Kahn's original conceptualization (1990, 1992) as well as Rothbard's (2001) dimensions, proposing a definition that has three components: 1) physical, that refers to the physical energy put into work; 2) emotional, which involves a pleasurable sensation and the activation of positive affect; and, 3) cognitive, that implies absorption and attention (Rich, LePine, & Crawford, 2010). However, this definition also presents some difficulties. On the one hand, the overlap of the emotional component with the positive affect construct, on the other hand, comprising absorption and attention in a single dimension, when evidence suggests that they are two separate dimensions (Rothbard,

2001). Based on the difficulties previously mentioned, the present study uses the definition proposed by Rothbard and Patil (2012), which comprises two cognitive dimensions (attention and absorption) and one physical dimension (energy).

Nienaber and Martins (2014) stated that, despite differences found in definitions, several instruments have been designed to measure work engagement, either in the academic or in the applied field. The most widely used is the Utrecht Work Engagement Scale (UWES), based on Schaufeli and Bakker's (2004) proposal, that considers the strength, dedication and absorption dimensions. Still, some limitations have been endorsed to the instrument, such as the construct on which the scale is based or the reliability indexes that in many cases were lower than expected (eg Rothman & Rothman, 2010). In addition, factorial studies, particularly in Latin-American contexts (Rodríguez-Montalbán, Martínez-Lugo, & Sánchez-Cardona, 2014), have not been able to replicate the dimensions proposed by the theoretical model. Moreover, most tests used to assess engagement tend to be very brief (the current version of the UWES presents only 9 items), which makes it difficult its adaptation. Therefore, the design of a new test that comprises items proposed by different authors (Rothbard, 2001; Rothbard & Patil, 2012) was decided for the present study, considering the definition previously introduced.

Engagement is particularly relevant in the workplace due to its association with positive outcome and the reason why many researches relate it with high levels of satisfaction and work performance. For example, several studies have found that engagement is strongly associated with job satisfaction, as the psychological state of presence in a role facilitates the sense of wellbeing at work (e.g., Alarcon & Edwards, 2011; Høigaard, Giske, & Sundsli, 2012; Mache, Vitzthum, Klapp, & Danzer, 2013; Karatepe & Karadas, 2015). Job satisfaction refers to the individuals' attitude towards work, which encompasses different facets (e.g., satisfaction with the supervisor, with coworkers, with the remuneration, with the possibilities of promotion, as well as with the work in general) (Cameron & Spreitzer, 2012; Spector, 1997). On the other hand, multiple studies have found an association between work engagement and work performance, that refers to both, how well an individual performs in the tasks required by his/her role; and how positively this performance contributes to the social and psychological environment of the organization (Christian, Garza , & Stalker, 2011). According to Christian et al. (2011), an employee with high levels of engagement would be motivated to carry out its role's tasks with more persistence, intensity and concentration. In this line, Albrecht, Bakker, Gruman, Macey and Saks (2015) argue that Human Resources policies should foster engagement as it impacts on the organization's results, particularly when working on aspects associated with employee´s energy (Owens, Baker, Sumpter, & Cameron, 2016). Additionally, Lin et al. (2016) conducted a study which reveals that it is crucial to intervene on the leadership role of the supervisors to achieve such effects.

Regarding individual and organizational variables, some studies show that engagement vary according to sex, with women presenting slightly lower levels than men (e.g., Liu, Cho & Putra, 2017; Mastenbroek et al., 2015). In relation to age, results are often contradictory, while some studies show an increase (e.g., Goštautaitė & Bučiūnienė, 2015; Schaufeli & Bakker, 2004), others depict a tendency to decrease the levels of engagement (e.g., Avery, McKay, & Wilson, 2007). In addition, it has been shown that the type of task in which employees is involved influences their levels of engagement. For example, those performing teaching tasks tend to report low levels of vigor and energy (Innstrand, 2016). In this sense, a recent work conducted in Argentinean companies revealed that lower levels of satisfaction and positive practices (e.g., respect, support, etc.) were observed in large and public organizations compared to smaller and private companies (Lupano Perugini & Castro Solano, 2017).

Objectives

- To validate a scale that assesses work engagement in its three dimensions (attention, absorption, energy).

- To analyze individual differences in the levels of work engagement according to individual (e.g., gender, age, position) and organizational (e.g., size, type of company) variables.

- To identify engagement profiles associated with high performance and job satisfaction.

Method

Participants

A convenience sample of 569 volunteer Argentinian employees (288 males, 50.6%; 281 females, 49.4%) was studied. The mean age was 36.85 years old (*SD* = 11.7). The majority of the participants (96.8%, *n* = 545) lived in Buenos Aires city, 3.9% (*n* = 22) in other provinces, and only 0.4% (*n* = 2) reported living abroad temporarily.

Regarding organizational variables, 81.9% of the participants (*n* = 466) worked in the private sector while 18.1% (*n* = 103) in the public sector. Concerning companies size, 42.4% (*n* = 241) work for large, 33.9% (*n* = 193) for medium, and 23.7% (*n* = 135) for small organizations. Out of the total, 33.9% (*n* = 193) of participants had a leadership position and managed staff while 66.1% (*n* = 376) were subordinates.

Materials

- *Argentine Work Engagement Scale -EACT-:* This instrument was designed to asses *work engagement* based on the Rothbard and Patil (2012) definition of work engagement as a multidimensional construct related to employee's dedication directed towards work tasks. It includes two cognitive dimensions (attention and absorption) and a physical dimension (energy).

As a result of the validation process, a 11-item version was obtained (e.g., *When I am working, I often lose track of time*). This scale is responded on a 5-point Likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree). Confirmatory factor analysis indicated the adequate fit of a three dimensional model. Cronbach's alpha coefficients were calculated to study internal consistency. All alpha coefficients for the EACT dimensions were satisfactory (See Results for psychometric properties).

- *Organizational Commitment Scale* (Allen & Meyer, 1990; Omar, 2005): This scale comprises 18 items that are responded on a 5-point Likert scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). The three types of organizational commitment are evaluated by six items each: The affective commitment (i.e., *I would be happy if I spent the rest of my career in the company where I work*), normative commitment (i.e., *This organization deserves my loyalty*) and calculative commitment (i.e., *I feel I have few options of work to leave my organization*). This version, adapted to Argentina (Omar, 2005), showed good internal consistency. Cronbach's alpha were .82 for affective commitment, .73 for normative and .76 for calculative.

- *Satisfaction with Life Scale* –SWLS- (Diener, Emmons, Larsen & Griffin, 1985): This 5-item instrument responded on a 7-point Likert scale examine the degree of overall satisfaction with life (i.e. *In most ways, my life is close to my ideals*). An average score indicates the degree of satisfaction perceived by the individual. SWLS is used internationally to evaluate well-being as a cognitive component of satisfaction. Different studies have reported good indexes of validity and reliability (Diener et al., 1985). For this study a version adapted to the Spanish language was used (Castro Solano, 2000). Cronbach's alpha coefficient from the sample of this study was .85.

- *Work Stress Questionnaire* (ILO/ WHO; in Llaneza Álvarez, 2009): This is a test developed by the International Labor Organization (ILO) and the World Health Organization (WHO) to assess the level of stress perceived by workers. This questionnaire covers seven dimensions that reflect possible work stressors (Organizational Climate, Organizational Structure, Organizational Territory, Technology, Leader Influence, Lack of Cohesion, and Group Support). It comprises 25 items that are responded in a 7-point Likert scale that ranges from 1 (never) to 7 (always) (i.e., *Reporting between superior and subordinate makes me feel pressured*). Scores higher than 153 points, indicate a high level of stress. For this sample, Cronbach's alpha for the total scale was .94.

In addition, some surveys for the assessment of other variables considered in the study, were designed. A pilot study was conducted with a small group of employees (*n* = 15) to test their adequacy. Some linguistic expressions, suggested by the participants of the pilot study, were modified. The following descriptions belong to the designed surveys:

- *Socio-demographic Survey:* It collects participants' personal data such as, sex, age, residence, marital status, socio-economic status, education and occupation.

- *Organizational Survey:* this instruments gathers information participants' organization and position, such as type and size of the organization, area in which employees work, position and whether manage staff or not. In addition, it included two items that requested participants to list three positive and three negative features of the organization (i.e. *List three characteristics that you consider positive about the organization in which you work*). These characteristics were analyzed in a previous reattach that studied profiles of positive organizations (Lupano Perugini & Castro Solano, 2016).

- *Job Satisfaction Survey:* The survey included six items in a 7-point Likert scale ranging from 1 (completely unsatisfied) to 7 (completely satisfied) which assess how satisfied the person is in terms of their work in general and different aspects (i.e., salary, bosses, co-workers, workplace) (i.e., "How satisfied am I with the salary I receive?"). The areas (e.g., salary, bosses, co-workers) were selected according the aspects analyzed in previous instruments (e.g., Balzer et al., 1997). Cronbach's alpha coefficient from the sample of this study was .76

- *Organizational and Individual Performance Survey:* As it was not possible to obtain objective indicators of organizational performance, it was inferred from the employee's perception. Some organizational performance indicators mentioned by Cameron, Brigth, and Caza (2004) in their research on virtues and performance, were used as a guide to design this survey, such as, levels of efficiency, innovation, growth, quality, retention of employees and customers, satisfaction, and adaptation. For example, ten items in a 6-point Likert scale ranging from 1 (Little) to 6 (Much) were developed to assess organizational performance. An example of an item is *To what extent do you believe that the organization performed efficiently - managing resources well - with the proposed objectives?* Cronbach's alpha obtained for this section was .89. Following the same criteria, another section was designed to assess individual performance. Six items with the same Likert-type scale as the previous section (1 = Little; 6 = Much) were included. An example of an item is: *To what extent do you think quality results were obtained?*" Cronbach's alpha obtained for this section was .84.

Procedure

Questionnaires were administered by psychology students from a university located in Buenos Aires city, as part of their professional practices in a research program. A senior researcher supervised their work. All participants were volunteers and no incentives were provided for their participation. In addition, the surveys had an introduction on the cover page requesting the informed consent of the participant, ensured the anonymity of the data and its exclusive use for research.

Data was analyzed with SPSS 18.0 and EQS 6.2.

Results

Firstly, the validity of the EACT scale was studied. A confirmatory factor analysis was conducted to study the EACT's factorial structure and test a three-factor model –attention, absorption, energy–. Although the distribution of the items did not seem to differ much from the normal distribution –see table 1-, a policoric correlation matrix was used since it is more appropriate for Likert type responses (Freiberg Hoffmann, Stover, de la Iglesia & Fernández Liporace, 2013; Muthén & Kaplan, 1985). Model fit was evaluated through different fit indexes: CFI (Comparative Fit Index), NFI (Normed Fit Index), IFI (Incremental Fit Index) and RMSEA (Root Mean Square Error of Approximation). Additionally, the regression weights of each item on their correspondent latent variable were assessed.

Table 1.
Descriptive statistics of the items

	Mean(SD)	Skewness	Kurtosis
Item 1	3.18(1.03)	-0.20	-0.56
Item 2	3.54(0.97)	-0.42	-0.46
Item 3	3.57(0.91)	-0.58	0.14
Item 4	3.82(0.83)	-0.82	1.16
Item 5	3.50(1.07)	-0.44	-0.63
Item 6	3.80(0.84)	-0.62	0.50
Item 7	3.05(0.96)	0.08	-0.31
Item 8	3.70(0.88)	-0.74	0.60
Item 9	3.86(0.87)	-0.86	0.88
Item 10	3.89(0.80)	-0.78	1.25
Item 11	3.49(0.87)	-0.47	0.23
Item 12	3.95(0.75)	-0.82	1.60

Results indicated that item 4 showed an inappropriate regression weight (<.40). Therefore, it was eliminated. The analysis was rerun, without that item. Fit indexes showed an excellent model fit: CFI = .986, NFI = .979, IFI = .986, RMSEA = .059 (CI 90% = .046 - .071). Figure 1 shows all regression weights which turned out to be appropriate (Byrne, 2006; Kline, 2000).

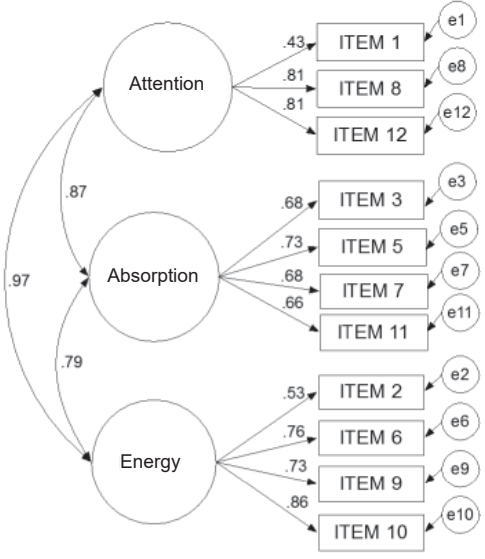

Figure 1.
Three-factor model of the engagement scale

Since the correlations among factors were strong a one-dimensional model was tested. The procedure was the same as for the three-factor analysis. Fit indexes were adequate but lower: CFI = .972, NFI = .964, IFI = .972, RMSEA = .078 (CI 90% = .067 - .089). Also, regressions weights were worse than in the previous model (see figure 2). These results indicate that the three-factor model was the most appropriate.

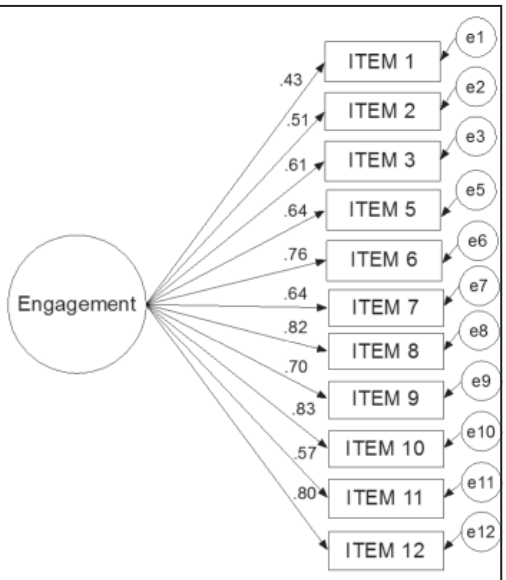

Figure 2.
One-dimensional model of the engagement scale

To obtain evidences of convergent and discriminant validity correlations were calculated among the subscales attention, absorption and energy and several measures used as external criteria: (a) Satisfaction with Life Measure; (b) three measures of Organizational Commitment – Affective, Calculative and Normative; and, (c) a measure of Stress. Positive and weak correlations were found among the three instruments and satisfaction with life (see table 2). This evidences some kind of convergence among the assessed constructs and provides evidence to refute the hypothesis of overlapped constructs. Regarding the Commitment measures, the correlations indicated similar results except for the Affective Commitment, which correlated moderately with attention and energy. Finally, negative and weak correlations were found for attention and absorption with the Stress measure. The correlation between Stress and Energy was no statistically significant ($p > .05$).

Table 2.
Convergent and divergent measures

	Attention	Absorption	Energy
Satisfaction with Life	.249**	.289**	.243**
Affective Commitment	.434**	.270**	.376**
Calculative Commitment	.157**	.109**	.183**
Normative Commitment	.310**	.238**	.296**
Stress	-.101*	-.111**	-.062

** p <.01
* p < .05

Lastly, Cronbach's alphas were calculated in order to estimate internal consistency of the three scales. All values were acceptable (Kline, 2000; Nunnally & Berstein, 1995): attention = .70; absorption = .74; energy = .76

Once the EACT scale was validated, differences in the levels of engagement were studied regarding individual variables such as sex, age, and position. Regarding sex, no differences were found (p > .05). To study differences regarding age, the sample was divided in two groups: those who were younger than 40 years old (n = 380) and those who were 40 years or older (n = 186). A t-test indicated that those who were younger than 40 years old had higher scores in attention (t = -4.427; 564 df; p < .001) and absorption (t = -2.679; 564 df; p = .008). No differences were found in the Energy scale regarding age group (p > .05). On the other hand, those who were in a leadership role had lower levels of attention in comparison of those who did not (t = -5.095; 566 df; p < .001). No differences were found in Absorption and Energy between those who were in a leadership role and those who weren't (p > .05).

Also, differences in organizational variable were studied. An ANOVA one-way test did not verified statistical significant differences in the three subtypes of engagement regarding size of the company (p > .05). Finally, no differences were found in the engagement scales between those who worked in a public or private company (p > .05).

Lastly, in order to identify different engagement profiles, by determining the adequate number of clusters that maximized the difference among groups and minimized the differences within-groups, a hierarchical cluster analysis was conducted using Ward's method and the squared euclidean distance. The conglomeration coefficient history and the dendogram indicated that a three-cluster solution was the most appropriate.

Then, three clusters were requested in a k means cluster analysis. The ANOVAs validated the three clusters solution, indicating statistical significant differences in the three types of engagement among the three clusters (p < .01). The means for each type of engagement for each cluster are depicted in Table 3. Cluster 1 was labeled "low engagement", cluster 2 "moderate engagement", and cluster 3 "high engagement".

Table 3.
Engagement profiles

	Attention	Absorption	Energy
Cluster 1	2.60	2.54	2.81
Cluster 2	3.58	3.32	3.75
Cluster 3	4.34	4.14	4.45

Differences in Job Satisfaction, Organizational and Employee Performance regarding cluster were studied. The ANOVAs indicated statistical significant differences in Job Satisfaction (F = 22.632; 2 df; p < .001), as well as Organizational Performance (F = 39.359; 2 df; p < .001) and Employee Performance (F = 10.927; 2 df; p < .001). Bonferroni post-hoc analyses indicated statistical significant differences among the three clusters. Those who belonged to the "high engagement" cluster" informed to have more Job Satisfaction, Organizational and Employee Performance in comparison to the other two clusters. Those who belonged to the "moderate engagement" cluster had higher scores in the three variables than those of the "low engagement" cluster (see table 4).

Table 4.
Differences between Job Satisfaction and Organizational/Employee Performance according engagement profiles

	High Engagement	Moderate Engagement	Low Engagement
Job Satisfaction	5.22[A]	4.85[B]	4.32[C]
Organizational Performance	4.30[A]	4.05[B]	3.73[C]
Employee Performance	4.95[A]	4.61[B]	4.03[C]

Same letters indicate homogenous subsets according to the post hoc analysis (Bonferroni)

Discussion

The main objective of this study was to validate a scale to assess work engagement based on the theoretical proposal of Rothbard and Patil (2012). According to the confirmatory factor analysis conducted, the three-factor structure has been observed, as proposed by the theoretical model. The structured obtained, has even presented a better fit than a one-dimensional structure tested due to the high correlations found between factors.

In addition, a good internal consistency was verified and evidence of convergent and discriminant validity was obtained. The weak and moderate correlations found between the dimensions of work engagement and work satisfaction, on the one hand, and organizational commitment, on the other hand, revealed that not only variables were related, but also refuted the hypothesis that these constructs overlap, as has been questioned by some authors (e.g., Macey & Schneider, 2008). In this line, Saks (2006) argues that work engagement differs from such constructs, as satisfaction and organizational commitment are considered attitudes towards the organization and work, whereas engagement, rather than an attitude, refers to the presence in a role. In addition, engagement usually comprises the result of such attitudes. That is, people would do their best when they feel committed and satisfied with their workplace and their work-related tasks. On the other hand, correlations showed that engagement is negatively associated with stress. However, as these correlations were weak, Maslach, Schaufeli and Leiter's (2001) theory that work engagement is the opposite pole of burnout, could also be disregarded. These results would justify, then, the choice of the theoretical model selected for this work.

Possible differences in work engagement based on individual and organizational variables were also analyzed in the present research. Overall, evidence of the association with variables such as age and sex are often quite contradictory (Goštautaitė & Bučiūnienė, 2017). No sex differences were found in the present sample, despite previous differences shown in favor of males (e.g. Liu, Cho & Putra, 2017; Mastenbroek et al., 2015). On the other hand, higher levels of attention and absorption were observed in younger subjects. These results are in line with studies that show increased engagement until certain age level (e.g., James, McKechnie, & Swanberg, 2011).

Furthermore, no differences were found either in the size or in the type of company, providing support to Innstrand (2016) hypothesis, who posits that the type of task would have more influence with the commitment established with it, than with variables associated with individual or organizational features. Based on these results, it would be interesting to analyze in future studies, the association present between levels of engagement and the type of task (e.g., customer services, teaching, etc.).

Finally, the last objective of this study was to identify engagement profiles associated with high performance and work satisfaction. Analyzes showed that employees belonging to the "high

engagement" cluster showed high levels of work satisfaction, organizational performance and employee performance. These results confirm that work engagement is associated with high levels of satisfaction and performance, in line with previous studies (e.g., Alarcon & Edwards, 2011; Christian et al., 2011; Høigaard et al., 2012; Karatepe & Karadas, 2015; Mache et al., 2013). An employee with high levels of engagement would be more motivated to conduct work/related tasks with greater persistence, intensity and concentration and in general, that would lead to better outcomes and satisfaction.

Conclusions

The results of this study confirm that the EACT is an instrument with adequate evidence of internal and external validity, which can be considered as a reliable tool to assess work engagement in the Argentinean population. On the other hand, it is possible to immediately appreciate the interest of these results in the applied field. The areas of Personnel or Human Resources could benefit by reinforcing employee's levels of engagement since its influence on their performance has been verified in the present study.

There are some limitations that should be mentioned. Some of them are related to the use of subjective measures to estimate individual and organizational performance. Future studies would benefit by including or developing new complementary measures. Additionally, the sample should be balanced by public and private companies' representation, based on the actual percentage in the local population.

Finally, future studies should favor the analysis of multivariate models that bring together individual-level variables - such as work engagement, psychological capital, organizational commitment, among others - as organizational-level variables. For example, previous studies have shown that the perception of virtues at the organizational level (e.g., support and respect, forgiveness, inspiration) influences positive outcome at the individual and organizational levels (e.g., Cameron, Mora, Leutscher, & Calarco, 2011; Lupano Perugini & Castro Solano, 2017). The design of multivariate models will allow identifying the best personal and organizational predictors of performance and job satisfaction.

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