Psychometric Properties of the Italian Version of the Utrecht Work Engagement Scale (UWES-9)

A Cross-Cultural Analysis

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Abstract. Work engagement may be defined as a positive, fulfilling, work-related psychological state characterized by the dimensions of vigor, dedication, and absorption. In this study, the psychometric properties of the Italian version of the Utrecht Work Engagement Scale (UWES-9) were investigated by using two samples of Italian ($n = 668$) and Dutch ($n = 2213$) white-collar employees. In addition to reliability analyses, we also conducted a series of multiple-group confirmatory factor analyses of the UWES-9. The validity of the UWES-9 was investigated by studying its correlations with the Job-Related Affective Well-Being Scale (JAWS) and with a measure of work performance. Results showed that a three-factor solution of the UWES-9 is invariant across the Italian and Dutch samples, with data supporting factor variance and covariance invariance in addition to metric invariance. Internal consistencies of the vigor, dedication, and absorption scales are good. The UWES-9 and its subscales show significant correlations in the expected direction with the JAWS and with work performance. The Italian version of the UWES-9 behaves consistently with its original Dutch version and may be used for future studies of work engagement.

Keywords: work engagement, positive organizational behavior, measurement, cross-cultural validation

Introduction

Traditionally, organizational and occupational health psychology, like psychology more in general, has been concerned with the study of dysfunctional aspects of behavior, cognition, and emotion, in order to understand their causes and to develop interventions to protect or re-establish individuals' health (Quick & Tetrick, 2003). All work done in the area of work-related stress is a very telling example in this respect (Quick, Quick, Nelson, & Hurrell, 1997). Since the end of last century, however, it has become increasingly acknowledged that negative psychological states constitute only one part of the spectrum of the experienced psychological states in the workplace, and that positive behaviors, cognitions, and emotions are also prevalent and in need of study. This has created an increasing impulse toward the investigation of what has been termed positive organizational behavior (Bakker & Schaufeli, 2008; Luthans, 2002; Nelson & Cooper, 2007).

One of the aspects of positive organizational behavior is work engagement, a psychological state considered the opposite pole of burnout (Schaufeli & Salanova, 2007). Work engagement is defined as "a positive, fulfilling, work-relat-ed state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). The dimension of vigor refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication is characterized by the experience of a sense of significance, enthusiasm, inspiration, and pride in connection with one's work. Absorption means being fully concentrated on one's work, whereby time passes quickly and one has difficulties in detaching oneself from work.

A scale to measure work engagement was derived from this definition. This scale, called the Utrecht Work Engagement Scale (UWES), is composed of 17 items and was found to have good psychometric properties, with Cronbach's α generally higher than .80 (Duran, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003; Schaufeli & Bakker, 2004). Moreover, confirmatory factor analysis showed that a three-factor structure of the scale (Vigor, Dedication, Absorption) is superior in terms of fit to a one-factor structure (Engagement) (Schaufeli et al., 2002). However, the three dimensions of engagement are strongly intercorrelated when analyzed either at the lev-

el of the measuring scales (*r* usually higher than .65) or at the level of the latent factors (*r* usually higher than .80) (Shaufeli & Bakker, 2003). Validity studies also showed that the three engagement dimensions correlate negatively with the three dimensions of burnout (e.g., Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001; Montgomery et al., 2003), and that workers scoring high on the UWES tend to be committed to a high-quality performance, usually obtaining positive feedback from superiors (e.g., good appraisal), from the organization (e.g., promotion), and from customers (e.g., gratitude) (Schaufeli et al., 2001).

Encouraged by these results, the authors (Schaufeli, Bakker, & Salanova, 2006) recently proposed a shorter version of the UWES, reduced to nine scale items. Using a large international database, Schaufeli et al. (2006) demonstrated that the UWES-9 has psychometric properties comparable to those of the original version of the scale, with a Cronbach's α higher than .80 across 10 countries. In a multiple-group confirmatory factor analysis they also found that a three-factor solution better fit the data than did a one-factor solution, although the one-factor solution generally showed an acceptable fit; and that the internal consistencies of the three engagement scales (Vigor: VI, Dedication: DE, and Absorption: AB) were above the value of .70 in most of the national databases. In two of the investigated countries, Australia and Norway, the UWES-9 also showed a 1-year stability coefficient of .64 and .73, respectively, with the VI, DE, and AB subscales showing a stability coefficient higher than .60.

In the present study we assess aspects of validity and reliability of the Italian version of the UWES-9, for which psychometric data are not yet available. First, we examine the internal consistency of the UWES-9 and then investigate the factorial validity of the UWES-9 by adopting a multiple-group (Italian and Dutch) confirmatory factor analysis approach. Third, we assess the validity of the UWES-9 by studying its correlations with four different measures of job-related affective well-being varying along the dimensions of arousal and pleasure, and with a measure of work performance. Finally, we explore differences in work engagement according to main sociodemographic characteristics. In line with what has been found in several countries (Schaufeli & Bakker, 2003; Schaufeli et al., 2006), we expected to replicate in Italy results indicating good psychometric properties of the UWES-9. More specifically, we hypothesized (Hypothesis 1) that a three-factor solution of work engagement invariant across the Italian and Dutch samples would best fit the data. We also hypothesized (Hypothesis 2) that the UWES-9 and its subscales would show positive significant correlations with an overall measure of job-related affective well-being. Because work engagement is conceptualized as a positive psychological state characterized by elevated activation, we expected (Hypothesis 3) that the UWES-9 and its subscales would show the strongest correlations with the measure tapping high-pleasure/high-arousal work-related affective

well-being. Finally, we also expected (Hypothesis 4) that the UWES-9 would converge in terms of a positive significant correlation with the used measure of work performance.

Materials and Methods

Participants

The Italian data were collected in the context of a psychosocial risk assessment conducted in a public administration agency in central Italy. As part of this assessment, workers were requested to fill in a structured, anonymous questionnaire investigating a number of psychosocial aspects of work and health outcomes, including those focused on the present study. The administration took place during working hours, separately for each department of the organization, at a time agreed in advance with management and workers representatives. Participation was on a voluntary basis. Data were collected from 743 white-collar employees in nonmanagerial positions; this sample represents 47.5% of the employees of the agency. Listwise deletion of cases focused on the UWES-9 left data available on 668 participants, of whom 48.7% were females. For reasons of anonymity, the age of participants was scored in age classes: 23.0% of participants were 30–39 years, 44.0% were 40–49, and 33.0% were 50 or older. Most of participants (97.8%) had a permanent job contract.

The Dutch sample was extracted from the UWES international database, which contains data from more than 30,000 participants from different countries and occupations. The database was made available by the third author. In order to ensure comparability with the Italian data, only Dutch white-collar employees were selected. The sample consisted of 2296 employees coming from both the public and the private sector who filled in an anonymous questionnaire as part of a work and well-being survey. There was only one exception to this rule, namely, 124 Dutch individuals who responded to a call in a newspaper to be interviewed about their work; they voluntarily provided their names and addresses. After listwise exclusion, data on 2213 participants remained available, of whom 54.2% were females. The mean age of the participants was 34.9 years ($SD = 9.7$).

Scales

Work engagement was measured by means of the UWES-9 (Schaufeli & Bakker, 2003), which investigates the experience of aspects of the construct by means of three three-item scales: Vigor (VI), Dedication (DE), and Absorption (AB) (see Table 1). Responses to items are given on a frequency scale varying from 0 (*never*) to 6 (*always*). The

UWES-9 was translated from English into Italian by a bilingual psychologist.

Work-related affective experiences were measured by means of a shortened 12-item version (Schaufeli & van Rhenen, 2006) of the Job-Related Affective Well-Being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). The JAWS investigates the frequency of experience of positive and negative emotions associated with one's work in the last 30 days, with responses given on a frequency scale ranging from 1 (*never*) to 5 (*very often*). Based on a two-dimensional model of work-related affect which builds upon the work of Russell (1980) and Warr (1987), four three-item subscales may also be derived from the JAWS: high-pleasure/high-arousal emotions (HPHA; e.g., enthusiasm); high-pleasure/low-arousal emotions (HPLA; e.g., satisfaction); low-pleasure/high-arousal emotions (LPHA; e.g., anger); low-pleasure/low-arousal emotions (LPLA; e.g., pessimism). In the present study these scales showed a Cronbach's αs of .84, .75, .73, and . 79, respectively. Self-rated work performance was assessed by the following question taken from the WHO Health and Work Performance Questionnaire (HPQ; Kessler et al., 2003): "On a scale from 0 to 10, where 0 is the worst performance and 10 is the top performance, how would you rate your overall job performance on the days you worked during the past 4 weeks?" For all the measures used in this study, higher scores mean higher levels of the investigated construct.

Analyses

Most of the analyses were run by means of well-known analytical tools available in SPSS. However, the core of the analyses consisted of a multiple-group confirmatory factor analysis (CFA) of the UWES-9, which was implemented by AMOS (Arbuckle & Wothke, 1999) by using the maximum likelihood estimator. The fit of the one-factor model of work engagement was first compared to the fit of the three-factor model on the Italian and Dutch data separately. This was done to ascertain that the latter fit the

data better than the former in both countries, and to establish the models that best fit the data in each country. Yet these best-fitting models need not be completely identical across groups (Byrne, 2001). Next, a series of multiple-group CFA was run, by which progressively more stringent forms of factorial invariance were tested (Byrne, 2001; Steenkamp & Baumgartner, 1998; Vanderberg & Lance, 2000). CFA results were evaluated by using the χ^2 statistic and a variety of other more practical fit indices (see Byrne, 2001; Tabachnick & Fidell, 2007, for a discussion on this topic): The goodness of fit index (GFI); the adjusted goodness of fit index (AGFI); the root mean square error of approximation (RMSEA); the normed fit index (NFI); the nonnormed fit index (NNFI); and the comparative fit index (CFI). Models showing values of up to .08 at the RMSEA (Jöreskog & Sörbom, 1996) and values of .90 or higher at the NFI, NNFI, and CFI (Bentler, 1992) were judged as having an acceptable fit. Models showing values of up to .06 at the RMSEA and values close to .95 at the NFI, NNFI, and CFI were judged as having a good fit (Hu & Bentler, 1999). In addition to the $\Delta\chi^2$, which – like its absolute value – is sensitive to sample size (e.g., Kelloway, 1995), nested models were evaluated by using the ΔCFI, with values in this statistic up to .01 indicating that the models are equivalent in terms of fit (Cheung & Rensvold, 2002).

Results

Descriptive Analyses of the UWES-9 Items

Table 1 reports the UWES-9 items (the Italian version of the scale may be downloaded from www.schaufeli.com) and associated descriptive statistics obtained from the Italian dataset. The mean values of the items suggested that all the different aspects of work engagement were experienced relatively frequently (i.e., weekly) by participants. Most of the UWES-9 items presented significant skew and kurtosis. However, skew and kurtosis were only moderate

Table 1. Descriptive statistics of the UWES-9 items on the Italian sample (*n* = 668)

	M (*SD*)	Min–Max	Skew (*SE*)	Kurtosis (*SE*)
1. At my work, I feel bursting with energy (VI-1)	3.87 (1.96)	0–6	−.59 (.10)	−.94 (.19)
2. At my job, I feel strong and vigorous (VI-2)	3.62 (2.03)	0–6	−.49 (.10)	−1.07 (.19)
3. I am enthusiastic about my job (DE-1)	3.36 (2.08)	0–6	−.22 (.10)	−1.31 (.19)
4. My job inspires me (DE-2)	2.90 (2.19)	0–6	−.02 (.10)	−1.45 (.19)
5. When I get up in the morning, I feel like going to work (VI-3)	3.84 (2.18)	0–6	−.65 (.10)	−1.09 (.19)
6. I feel happy when I am working intensely (AB-1)	4.05 (1.95)	0–6	−.82 (.10)	−.51(.19)
7. I am proud of the work that I do (DE-3)	3.85 (2.08)	0–6	−.58 (.10)	−1.01 (.19)
8. I am immersed in my job (AB-2)	4.39 (1.85)	0–6	−1.10 (.10)	.11 (.19)
9. I get carried away when I am working (AB-3)	4.45 (1.89)	0–6	−1.14 (.10)	.12 (.19)

Note. VI = Vigor; DE = Dedication; AB = Absorption.

in size, and they were in the same negative direction for all the items. In addition, inspection of the 36 bivariate scatterplots failed to show evidence for nonlinear relationships between the scale items. Taken together, and considering that a cross-validation approach to data analysis was also adopted (see below), the degree of departure from normality of the UWES-9 items was judged as tolerable.

Factorial Validity of the UWES-9

First, both the Italian and Dutch databases were randomly split into two halves, thus producing two calibration samples ($n = 330$ for Italy, and $n = 1095$ for the Netherlands) and two validation samples ($n = 338$ in for Italy, and $n = 1118$ for the Netherlands). Table 2 reports the χ^2 and other fit indices of a series of CFA. Models from 1 to 9 refer to analyses conducted on the calibration samples, model 10 to analysis conducted on the validation samples. Model 2 in comparison to Model 1 and Model 4 in comparison to Model 3 suggested that in both the Italian and Dutch samples a 3-factor (Vigor, Dedication, and Absorption) solution better fit the data than a 1-factor (Engagement) solution. However, as indicated by the RMSEA, which showed a value of .14 in Italy and .09 in The Netherlands, the 3-factor solution didn't fit the data well. The fit was ameliorated by freeing four error covariances in Italy (VI-1/VI-2, VI-2/VI-3, AB-1/AB-2, and AB-2/AB-3) and two in the Netherlands (VI-1/VI-2 and AB-2/AB-3), thus obtaining slightly different baseline models (Model 2a and Model 4a) in the investigated countries. The first multiple-group analysis thus tested a model (Model 5) of configural invariance by simultaneously evaluating the fit of Model 2a and Model 4a. The practical fit indices of Model 5 (RMSEA = .057; NFI = .970; NNFI = .958; CFI = .975)

all indicated a good fit, suggesting an invariant three-factor solution of the UWES-9 in both Italy and The Netherlands. Model 6 tested for metric invariance (i.e., equal factor loadings), and it also achieved a good fit, while the χ^2 of this model deteriorated slightly with respect to its predecessor model ($\Delta\chi^2$ (6) = 12.6, $p = .05$); the fit indices and a null ΔCFI indicated that it was well supported by the data. Model 7 (scalar invariance, i.e., equal items' intercepts) determined a considerable deterioration in fit in comparison to Model 6 ($\Delta\chi^2$ (6) = 294.6, $p < .001$); a ΔCFI = .037 suggested that this model could not be accepted.

This result may be a consequence of the fact that the two samples were not sufficiently homogeneous and implies that a meaningful comparison on the engagement dimensions between the two investigated countries is precluded (see Byrne, 2001). The following models of invariance were nested within the metric invariance model (Model 6). Both Model 8 and Model 9, testing for factor variance invariance and for factor variance and covariance invariance, achieved a good fit. For example, Model 8 showed good fit indices (RMSEA = .059; NFI = .961; NNFI = .955; CFI = .968) and overcame the stringent threshold of a ΔCFI = .01 or less with its predecessor model (i.e., Model 6). The standardized factor loadings for the final model (Model 9) were all statistically significant with a $p < .001$, and ranged from .60 to .81 in Italy and from .64 to .89 in The Netherlands. Correlations between the three latent dimensions of engagement were very high: $r = .90$ between Vigor and Dedication; $r = .94$ between Dedication and Absorption; and $r = .92$ between Vigor and Absorption. Finally, Model 10 cross-validated the factor variance and covariance invariance model with the obtained Italian and Dutch validation samples, and, as shown in Table 2, it achieved an acceptable fit. Overall, these results support Hypothesis 1.

Table 2. Goodness of fit statistics for tests of factorial validity of the UWES-9

	χ^2	df	GFI	AGFI	RMSEA	NFI	NNFI	CFI
Model 1 (1-factor, Italy)	586.3*	27	.76	.60	.23	.77	.71	.78
Model 2 (3-factor, Italy)	172.9*	24	.898	.809	.137	.919	.894	.929
Model 3 (1-factor, Netherlands)	400.0*	27	.916	.860	.112	.931	.913	.935
Model 4 (3-factor, Netherlands)	215.0*	24	.959	.923	.085	.963	.950	.967
Model 2a (3-factor improved, Italy)	58.6*	20	.961	.913	.077	.973	.967	.982
Model 4a (3-factor improved, Netherlands)	175.3*	22	.967	.932	.080	.970	.956	.973
Model 5 (m.g.ᵃ – configural invariance)	233.9*	42	.965	.926	.057	.970	.958	.975
Model 6 (m.g. – metric invariance)	246.5*	48	.963	.931	.054	.969	.962	.975
Model 7 (m.g. – scalar invariance)ᵇ	541.1*	54	n.a.ᶜ	n.a.	.080	.932	.917	.938
Model 8 (m.g. – factor variance invariance)	302.2*	51	.954	.918	.059	.962	.955	.968
Model 9 (m.g. – factor variance and covariance invariance)	331.8*	54	.948	.913	.060	.958	.953	.965
Model 10 (m.g. – factor variance and covariance invariance, cross-validation)	479.6*	54	.928	.880	.074	.944	.933	.950

Note. ᵃm.g. = multiple group, ᵇTo obtain an identified model, the intercept of the reference item for each factor was constrained to "0" across countries. ᶜn.a. = not available (GFI and AGFI do not generalize to the case where means and intercepts are model parameters [Byrne, 2001]). *$p < .01$.

Table 3. Correlations between the UWES-9 and the JAWS scales (*n* = 668)

	M (*SD*)	1	2	3	4	5	6	7	8	9	10
1. UWES-9	34.33 (14.31)	1.00									
2. VI	11.33 (5.45)	.91	1.00								
3. DE	10.11 (5.76)	.92	.78	1.00							
4. AB	12.90 (4.73)	.85	.66	.67	1.00						
5. JAWS	38.61 (9.00)	.51	.49	.53	.33	1.00					
6. JAWS-HPHA	8.19 (2.77)	.61	.57	.59	.45	.75	1.00				
7. JAWS-HPLA	8.93 (2.60)	.49	.47	.49	.34	.81	.73	1.00			
8. JAWS-LPHA	7.19 (2.89)	−.29	−.27	−.31	−.17	−.81	−.34	−.37	1.00		
9. JAWS-LPLA	7.34 (3.08)	−.25	−.26	−.28	−.12	−.81	−.47	−.43	.73	1.00	
10. Work performance	7.24 (1.80)[a]	.38	.32	.35	.35	.19	.28	.23	−.07[a]	−.08[a]	1.00

Note. VI = Vigor; DE = Dedication; AB = Absorption; JAWS = Job-related Affective Well-Being Scale; JAWS-HPHA = high pleasure/high arousal affective states; JAWS-HPLA = high pleasure/low arousal affective states; JAWS-LPHA = low pleasure/high arousal affective states; LPLA = low pleasure/low arousal affective states. Unless otherwise indicated, all the correlations are statistically significant at the .01 level.
[a]*ns.*

Additional Psychometric and Descriptive Analyses

Additional analyses were run on the Italian overall dataset (*n* = 668). Internal consistency reliability (Cronbach's α) of the UWES-9 was excellent (.92), as was the internal consistency of the VI, DE, and AB subscales (.86, .89, and .76, respectively).

Descriptive statistics and intercorrelations of study variables (i.e., the UWES-9, the JAWS, and their component scales, as well as the single item performance measure) are reported in Table 3. In the Dutch sample the following descriptives were obtained for the measures of work engagement: UWES-9, *M* = 34.60, *SD* = 10.56; VI, *M* = 12.43, *SD* = 3.52; DE, *M* = 11.95, *SD* = 4.16; AB, *M* = 10.22, *SD* = 4.01. As expected (see Table 3), the UWES-9 showed a high (although not unduly high) correlation with the JAWS (*r* = .51); the VI, DE, and AB subscales were also substantially correlated with the JAWS, with *r* values varying between .33 to .53. Furthermore, consistent with the nature of the measured construct (which reflects a pleasant emotional experience indicating work-related excitement), the UWES-9 and its subscales showed significant correlations in the expected direction with the JAWS subscales, i.e., negative correlations with the low pleasurable scales and positive correlations with the high pleasurable scales. As a more stringent proof of the construct validity of the UWES-9, the tool and its subscales showed stronger correlations with the HPHA scale than with the HPLA scale. For example, the correlation between the UWES-9 and the HPHA scale was *r* = .61; the correlation between the UWES-9 and the HPLA scale was *r* = .49; a test for the difference between two nonindependent *r* values (Howell, 1997) indicated that this difference was statistically significant, *t*(644) = 4.34, *p* < .05. Similarly, the VI, DE, and AB subscales showed statistically stronger correlations with the HPHA emotions than with the HPLA emotions. These results are consistent with Hypotheses 2 and 3. In line with

Hypothesis 4, the UWES-9 as well as the VI, DE, and AB scales all showed positive statistically significant correlations with self-assessed work performance, with coefficients varying between .32 (VI/Work performance) and .38 (UWES-9/Work performance).

To test for age and gender differences in the level of engagement, two one-way MANOVAs were conducted, with the scores on VI, DE, and AB serving as dependent variables. Both MANOVAs (Wilk's criterion) were statistically significant: *F*(6, 1256) = 2.17, *p* < .05 for age, and *F*(3, 620) = 14.71, *p* < .001 for gender. Follow-up *F*-tests and posthoc tests for age revealed that, in general, older employees (50 years or more) scored higher on VI and AB and males scored higher on VI and DE. However, the effect size associated with the univariate *F*-tests (η^2 = .01 in all cases) indicated that these differences were practically negligible. This is consistent with findings from international research on work engagement (Schaufeli & Bakker, 2003).

Discussion

With data obtained from a sample of white-collar employees of a public administration, the present study provided evidence for the reliability and validity of the Italian version of the UWES-9. In line with what has been found for the original Dutch version of the scale (Schaufeli & Bakker, 2003), we found that the UWES-9 shows an excellent internal consistency reliability, well above the suggested threshold of .70 (Nunnally & Bernstein, 1994). Separate CFA of the Italian and Dutch data showed that a three-factor (Vigor, Dedication, and Absorption) solution better fit the data than a one-factor (Engagement) solution in both countries. In the subsequent multiple-group CFA analyses, evidence for metric invariance was found, which can be considered proof of strong factorial invariance (Vandenberg & Lance, 2000) of the UWES-9, meaning that Italian

workers conceptualize work engagement in the same way as comparable Dutch workers. In addition to metric invariance, evidence for factor variance and covariance invariance was also found, meaning that Italians and Dutch use similar ranges of the three constructs' continua by which work engagement may be conceptualized, and that the relationships between the constructs are similar across countries (Vanderberg & Lance, 2000).

The internal consistency of the three engagement scales was also adequate. Thus, adopting a psychometrically rigorous approach, in future research on work engagement in Italy one should use the VI, DE, and AB subscales – rather than the overall 9-item measure. However, in line with what was recently proposed for the original Dutch version of the measure (Schaufeli et al., 2006), in future research on work engagement in Italy we argue for interchangeably using both the 9-item scale or the 3-item scales. This proposal is based on the following reasons. First, the internal consistency of the 9-item scale is very high and well above a suggested stringent criterion of .80 for basic research (Nunnally & Bernstein, 1994). Second, the latent variables Vigor, Dedication, and Absorption are strongly intercorrelated (mean $r = .92$), as are the corresponding observed scales (mean $r = .70$). Third and most important, research has still to gain a clear understanding of whether VI, DE, and AB have at least partially different nomological networks (i.e., different causes and consequences). Thus, for now, as suggested by Schaufeli et al. (2006), one may opt for using a single engagement scale in multiple regression analysis (since the three scales could generate problems of collinearity) and resort to the three scales as indicators of a latent engagement factor when testing structural equation models involving work engagement. For practical applications of the UWES-9 – such as for individual or group assessment as part of a psychosocial risk evaluation – normative data should be obtained for Italian workers, paralleling what has already been done for Dutch workers (Schaufeli & Bakker, 2003). Unless a clear differentiation between the UWES-9 dimensions is established in future research, national norms at the overall scale level, rather than at the three component scales level, would suffice for interpretation.

As expected, a positive relationship between the UWES-9 and the JAWS emerged, particularly so when the subscale HPHA emotions was used as an indicator of job-related affective well-being. The JAWS was derived from a conceptualization of job-related affect, according to which it varies along the two dimensions of pleasure and activation (Van Katwyk et al., 2000). Thus, the results obtained in the present study – that work engagement and its dimensions converge with the measure tapping the high pleasure/high activation quadrant of the JAWS model – support the view of work engagement as a psychological state characterized by energy, identification with, and positive emotions toward one's work (Schaufeli & Bakker, 2003) The correlations of the UWES-9 and its subscales with the measure of work performance – an indicator that has been validated against independent performance measures such as supervisory ratings (Kessler et al., 2003) – were significant and in the expected positive direction. Overall this indicates that the Italian version of the UWES-9 behaves consistently with the theory of work engagement (Schaufeli & Salanova, 2007), providing evidence for its construct and predictive validity.

A limitation of the present study is that it was not possible to obtain entirely comparable occupational samples in both countries. The Italian sample included white-collar employees from a public organization, while the Dutch sample included white-collars from both public and private organizations. Also, there was a clear difference in age between the Italians and the Dutch, 77% of the Italians being at least 40 years old, while the Dutch had a mean age of 34.9 years. Particularly the latter difference may have been important, since research has shown a positive association between work engagement and age (e.g., Schaufeli et al., 2006). This suboptimal comparability between the two national samples may have influenced the results of the analyses, e.g., causing the lack of scalar equivalence of the tool, which in turn precluded a meaningful comparison of the level of work engagement between countries. Thus, further research is necessary for a more stringent test for this important level of cross-cultural equivalence of the UWES-9.

To conclude, this paper demonstrated that the Italian version of the UWES-9 has psychometric properties similar to those of the original Dutch version of the scale, showing encouraging reliability, factorial, construct, and predictive validity. It is hoped that this evidence will further stimulate research on this aspect of positive organizational behavior.

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