# Teams make it work: How team work engagement mediates between social resources and performance in teams

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In this study we analyze the mediating role of team work engagement between team social resources (i.e., supportive team climate, coordination, teamwork), and team performance (i.e., in-role and extra-role performance) as predicted by the Job Demands-Resources Model. Aggregated data of 533 employees nested within 62 teams and 13 organizations were used, whereas team performance was assessed by supervisor ratings. Structural equation modeling revealed that, as expected, team work engagement plays a mediating role between social resources perceived at the team level and team performance as assessed by the supervisor.

Cómo el engagement en el trabajo del equipo media entre los recursos sociales y el desempeño. En este estudio analizamos el rol mediador del engagement en el trabajo en equipo entre los recursos sociales (i.e., clima de apoyo, coordinación, trabajo en equipo) y el desempeño del equipo (i.e., desempeño inrol y extra-rol) tal como predice el Modelo de Demandas-Recursos Laborales. Se utilizó una muestra de 533 empleados anidados en 62 equipos y 13 organizaciones. El desempeño del equipo fue evaluado por los supervisores. Los Modelos de Ecuaciones Estructurales revelaron que, tal como se esperaba, el engagement en el trabajo del equipo juega un rol mediador entre los recursos sociales percibidos por el equipo y su desempeño evaluado por el supervisor.

The study of work engagement has become a popular topic since the turn of the century (Bakker, Rodríguez-Muñoz, & Derks, 2012). Work engagement is a positive affective-motivational and work-related psychological state characterized by vigor, dedication and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Despite its relevance in work settings, the vast majority of scholars have focused on work engagement at the individual level, thus ignoring the role of teams (Richardson & West, 2010). This is even more remarkable if we consider that teams play a crucial role in employee health and well-being (Wilson, DeJoy, Vandenberg, Richardson, & McGrath, 2004), and productivity (Salanova, Llorens, Cifre, Martínez, & Schaufeli, 2003). In order to fill this gap, this study analyzes the role of team work engagement as a mediator between social resources and team performance, as assessed by the team supervisor, using aggregated data at the team level of analysis.

The Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) is a heuristic and parsimonious model that posits how two sets of employees' working conditions (i.e., job demands and job resources) relate with their psychosocial health and wellbeing, which in turn are associated with several employee and organizational outcomes (Llorens, Bakker, Schaufeli, & Salanova, 2006). The JD-R model has been successfully studied in different

countries as well as in different occupations such as white-collar workers (Schaufeli & Bakker, 2004) and blue-collar workers (Bakker, Demerouti, De Boer, & Schaufeli, 2003).

The JD-R Model assumes two independent processes in order to explain the impact of job demands and job resources on various work-related outcomes. The health-impairment or erosion process posits that the presence of chronic job demands consumes energy and effort, and may therefore undermine employee health and wellbeing and lead to burnout, which in turn can lead to an increase in psychological and somatic complaints (Hakanen, Bakker, & Schaufeli, 2006). In contrast, the motivational process posits that job resources foster employees' motivation and induce positive emotions, as is the case for work engagement. Next, this affective-motivational state may lead to positive results for the organization, such as a decrease in turnover intention (Schaufeli & Bakker, 2004) and sickness absence (Schaufeli, Bakker, & Van Rhenen, 2009).

The erosion process of the JD-R Model has also been tested at the team level of analysis by Bakker, Van Emmerik and Van Riet (2008), whose results showed the mediating role of burnout between job demands and resources on the one hand and performance on the other. However, despite the fact that work engagement plays a mediating role in the motivational process at the individual level of analysis by linking resources to outcomes (Llorens et al., 2006), the positive path of the JD-R Model remains to be tested at the collective, team level. In order to analyze whether engaged teams are also better-performing teams, we include the aggregated perceptions of team social resources and team work engagement as well as the supervisor-rated team performance. Following the JD-R Model, social resources may constitute the starting point of a virtuous process.

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According to the JD-R Model (Demerouti et al., 2001, p. 501), job resources are defined as «those physical, psychological, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development». Previous research shows that social resources can influence work engagement at the individual level. For instance, teachers with high levels of social resources (i.e., innovative climate, supervisor support, and supportive social climate) experience more work engagement than teachers with low levels of such resources (Hakanen et al., 2006). Longitudinal research has also supported this relationship, as illustrated by Schaufeli and colleagues (2009), who examined a Dutch telecom company and found that social support predicted work engagement over a period of one year, controlling for baseline-level engagement. Recent team-level research also revealed that social phenomena, such as vertical trust (Acosta, Salanova, & Llorens, 2011) or healthy organizational practices that include team social resources (Salanova, Llorens, Cifre, & Martínez, 2011), have a positive relationship with work engagement at the team level.

Although previous research suggests that a relationship exists among social resources and work engagement, two issues remain problematic: (1) social resources have been tested together with employee and organizational level variables, i.e., including variables from different levels of analysis in the same structural model, and (2) to date the relationship between social resources and work engagement has only been tested at the individual level, and not at the team level. Therefore, in the current study social resources are considered at the team level in order to explore their relationship with team work engagement and team performance as rated by the supervisor.

Work engagement has traditionally been described as «a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption» (Schaufeli et al., 2002, p. 72). Vigor suggests a willingness to invest high levels of energy and mental resilience while working. Dedication refers to a particularly strong work involvement and identification with one's job. Finally, absorption denotes being fully concentrated and engrossed in one's work.

To date work engagement has been studied mainly at the individual level (e.g., Llorens et al., 2006, 2007), but it may also exist as a collective psychosocial construct. The fact that people who work together experience collective emotions (Barsade, 2002) may also be applied to work engagement. For instance, Bakker, van Emmerik and Euwema (2006) identified emotional contagion as the main crossover mechanism behind the emergence of a shared psychological state such as team work engagement. Thus, we conceptualize team work engagement as a positive, fulfilling, work-related and shared psychological state characterized by team work vigor, dedication and absorption which emerges from the interaction and shared experiences of the members of a work team (Salanova et al., 2003).

Previous research has shown that collective work engagement increases: (1) task performance of students working in groups (Salanova et al., 2003); (2) service climate in service employees (Salanova, Agut, & Peiró, 2005); (3) collective positive affect and collective efficacy beliefs (Salanova, Llorens, & Schaufeli, 2011); and (4) individual-level work engagement (Bakker et al., 2006). However, as far as we know, no study has explored the relationship between team work engagement and team-level performance, with

the *team* as a referent and not the individual employee. One of the innovations of the present study is that team performance is not reported by individuals but is assessed by their immediate supervisor.

According to Goodman and Svyantek (1999), in-role and extrarole performance are related to task and contextual performance, respectively. Specifically, task performance includes activities that are related to the formal job. On the other hand, contextual performance refers to actions that exceed what the employee is prescribed to do, e.g., helping others or voluntary overtime. Hence, considering both complementary types of job performance provides a comprehensive picture of employees' performance.

Different scholars have confirmed the positive relationship between employees' well-being and job performance at the individual level. For instance, Schaufeli, Taris and Bakker (2006) concluded that engaged employees show more in-role and extrarole performance in a broad range of companies and occupations. Furthermore, in another recent study in a fast-food restaurant (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009) engaged employees managed to accomplish higher objective financial returns for the business. This relationship has also been found at the team level. For example, Salanova et al., (2011) showed that a set of indicators for healthy employees (i.e., collective efficacy, work engagement and resilience) had a positive association with various outcomes (i.e., performance and commitment).

Based on the JD-R Model (Demerouti et al., 2001), our hypothesis is that team work engagement (i.e., team work vigor, team work dedication, and team work absorption) fully mediates the relationship between social resources (i.e., supportive team climate, coordination and teamwork) and the supervisor's rating of performance in teams (i.e., in-role and extra-role performance; see Figure 1).

# Method

Sample and procedure

A convenience sample consisting of 533 employees (average response rate 58%) nested within 62 teams (with 62 team supervisors; average response rate 76%) from 13 enterprises was used in the study. Of the total number, 82% worked in the service sector, 10% in industry, and 8% in construction. Moreover, 54% were women, 70% had a tenured contract, 16% were self-employed, and 14% had a temporary contract. The average job tenure was 4.39 years (SD=3.47) and the average tenure in the company was 6.6 years (SD=5.54). Regarding the supervisors, 52% were male, 82% had a tenured contract, 13% were self-employed, and 5% had a temporary contract. The average job tenure was 6.25 years (SD=4.95) and the average tenure in the company was 13.94 years (SD=5.88). Finally, teams had an average of almost nine members (M=8.6, SD=8.7).

After reaching an agreement about the company's participation in the study, questionnaires were administered to the participants, who were asked to take part voluntarily. Teams with more than one supervisor were not included in the data analysis. To lead respondents' attention away from the individual level to the team level, all items focused on team perceptions as stipulated in the HERO (HEalthy and Resilient Organizations) questionnaire (Salanova et al., 2011). The confidentiality of the answers was guaranteed.

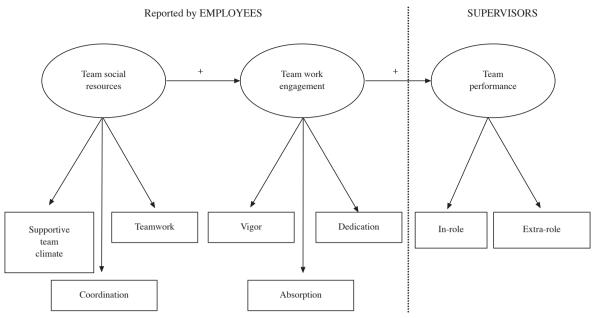


Figure 1. Proposed fully mediated model

### Measures from employees

Team social resources were assessed by nine items in three different scales: supportive team climate (three items; e.g., 'In my team, constructive criticism is rewarded'; alpha=.76), coordination (three items; e.g., 'My team is well-coordinated'; alpha=.79), and teamwork (three items; e.g., 'My team has well-defined work goals'; alpha=.75). Respondents answered using a 7-point Likert-type scale ranging from 0 (never) to 6 (always).

Team work engagement was assessed by nine items validated for aggregated data at the team level by Torrente, Salanova, Llorens and Schaufeli (in press). Specifically, we tested three dimensions: team work vigor (three items; e.g., 'While working, my team feels full of energy'; alpha= .76), team work dedication (three items; e.g., 'My team is enthusiastic about the task'; alpha= .84), and team work absorption (three items; e.g., 'While working, we forget everything else around us'; alpha= .75). Respondents answered using a 7-point Likert-type scale ranging from 0 (never) to 6 (always).

### Measures from supervisors

Team performance was assessed by six items adapted from the Goodman and Svyantek scale (1999). Two different scales were considered: in-role performance (three items; e.g., 'The team that I supervise achieves its work goals'; alpha= .82) and extrarole performance (three items; e.g., 'In the team that I supervise employees help each other when somebody is overloaded'; alpha= .72). The supervisors answered using a 7-point Likert-type scale ranging from 0 (totally disagree) to 6 (totally agree).

# Data analyses

Firstly, the Harman's single factor test (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) was carried out using AMOS 18.0 (Arbuckle, 2009) for the variables assessed by the employees. Secondly, the agreement of employee perceptions in teams was

checked using various indices: following a consistency-based approach, both ICC, and ICC, indices were calculated. Values greater than .12 for ICC, indicate an adequate level of withinunit agreement (James, 1982). For the ICC2, values greater than .60 support aggregation (Glick, 1985). From a consensus-based approach, the Average Deviation Index was computed (AD<sub>M(I)</sub>; Burke, Finkelstein, & Dusig, 1999), whereby team agreement was concluded when  $AD_{M(I)}$  was equal to or less than 1 (Burke et al., 1999). Finally, Analyses of Variance (ANOVA) were computed in order to ascertain whether there was significant between-group discrimination for the measures. Thirdly, we computed descriptive statistics and intercorrelations among the variables at the individual and the aggregated levels. Finally, AMOS 18.0 (Arbuckle, 2009) was used to implement Structural Equation Modeling (SEM) using the maximum likelihood estimation method. Three competitive models were compared: M0, the independence model; M1, the fully mediated model; and M2, the partially mediated model.

Two absolute goodness-of-fit indices were assessed: (1) the  $\chi^2$  goodness-of-fit statistic; and (2) the Root Mean Square Error of Approximation (RMSEA). The  $\chi^2$  goodness-of-fit index is sensitive to sample size and so the use of relative goodness-of-fit measures is recommended (Bentler, 1990). Accordingly, three relative goodness-of-fit indices were used: (1) the Normed Fit Index (NFI); (2) the Tucker-Lewis Index (TLI); and (3) the Incremental Fit Index (IFI). Values smaller than .05 are indicative of an excellent fit for RMSEA (Brown & Cudeck, 1993) and values higher than .95 are indicative of an excellent fit for the relative indices (Hoyle, 1995). Finally, we computed the Akaike Information Criterion (AIC; Akaike, 1987) to compare competing non-nested models; the lower the AIC index, the better the fit is.

#### Results

## Descriptives and aggregation analyses

Firstly, the results of the Harman's single factor test (e.g., Podsakoff et al., 2003) revealed a poor fit to the data:  $\chi^2(9)$ =

46.398, RMSEA= .261, NFI= .820, TLI= .744, IFI= .850. Results also showed that the model considering two latent factors (i.e., team social resources and team work engagement) fit the data well:  $\chi^2(8)=5.499$ , RMSEA= .000, NFI= .979, TLI= 1.019, and IFI= 1.010. The difference between both models is also significant in favor of the model with two latent factors, Delta  $\chi^2(1)=40.899$ , p<.001. Consequently, common method variance is not a serious deficiency in these data.

Table 1 shows means, standard deviations, intercorrelations, and aggregation indices of all the study variables. ICC., ICC, and  $AD_{M(I)}$  indices ranged from .12 to .28, from .54 to .77, and from .64 to 1.13, respectively. Results for these indices were modest in the case of  $AD_{M(I)}$  for supportive team climate ( $AD_{M(I)} = 1.13$ ) and of ICC, for team work vigor (ICC,= .54). However, one-way ANOVA results showed statistically significant between-group discrimination for supportive team climate, F(61, 465) = 3.66, p < .001; coordination, F(58, 461) = 3.02, p < .001; teamwork, F(61, 461) = 3.02468)= 4.30, p<.001; team work vigor, F(61, 471)= 2.19, p<.001; team work dedication, F(61, 471) = 2.68, p < .001; and team work absorption, F(61, 471) = 2.96, p < .001. By implication, there was a significant degree of between-group discrimination, and therefore the validity of team social resources and the three dimensions of team work engagement was supported. In conclusion, overall aggregation results indicated within-group agreement in the teams so that unit members' perceptions can be aggregated.

Further analyses were conducted in order to control for the influence of interorganizational variability in the study variables.

Intraclass Correlation Coefficients (ICCs) were calculated by testing an intercept-only model using a multilevel methodology (Hox, 2010). ICCs for the study variables ranged from .002 to .14. Thus, it was concluded that there were no extreme differences between organizations that could be biasing the results.

Finally, as expected the work engagement dimensions were positively interrelated (mean r=.74) and positively related to team social resources (mean r=.54) at the team level. Regarding the intercorrelations between employee and supervisor variables, teamwork, coordination, team work vigor, and team work absorption were significantly related to in-role performance (mean r=.27). In-role and extra-role performance were also significantly interrelated (r=.68).

## Model Fit: Structural Equation Modeling

To compute SEM, we used the aggregated database that included team social resources and team work engagement as well as the supervisor's team performance rating (N= 62). Table 2 shows the results of the SEM analysis indicating that the proposed fully mediated model fits the data well, with all fit indices satisfying their corresponding criteria. The chi-square difference test between M1 (the Fully Mediated model) and M0 (the Independence Model) shows a significant difference between the two models in favor of M1, Delta  $\chi^2(10)=297.24$ , p<.001. The chi-square difference test between M1 (the Fully Mediated Model) and M2 (the Partially Mediated Model) shows a non-

Table 1  Means, standard deviations, intercorrelations, and aggregation indices for the study variables													
Variables	Mean	SD	ICC <sub>1</sub>	ICC <sub>2</sub>	$AD_{M(J)}$	1	2	3	4	5	6	7	8
1. Supportive team climate	3.10	.99	.24	.73	1.13	-	.69***	.53***	.40**	.44***	.43**	.11	.06
2. Teamwork	4.63	.76	.28	.77	.77	.58***	_	.78***	.61***	.64***	.62***	.31*	.22
3. Coordination	4.75	.76	.19	.67	.78	.47***	.68***	-	.59***	.57***	.55***	.26*	.20
4. Team work vigor	4.42	.57	.12	.54	.64	.29***	.40***	.35***	-	.80***	.65***	.26*	.16
5. Team work dedication	4.65	.71	.16	.62	.65	.32***	.46***	.39***	.66***	-	.78***	.24	.12
6. Team work absorption	4.17	.73	.18	.66	.82	.31***	.37***	.28***	.54***	.67***	-	.26*	.09
7. In-role performance <sup>a</sup>	4.68	.82	-	_	-	-	-	-	-	-	-	_	.68***
8. Extra-role performance <sup>a</sup>	4.55	.96	-	_	-	-	-	_	-	-	-	-	_

Notes: Intercorrelations are presented at the individual-level (below the diagonal) and at the team-level (above the diagonal)

<sup>\*</sup> p<.05; \*\* p<.01; \*\*\* p<.001

Table 2 Goodness-of-fit indices for the SEM models											
Models	$\chi^2$	df	RMSEA	NFI	TLI	IFI	AIC	$\Delta\chi^2$	Δdf	ΔΑΙΟ	
M0	307.07	28	.40	.00	.00	.00	323.07				
M1	11.66	19	.00	.96	1.04	1.03	45.66				
ΔM0-M1								295.41***	9	277.42	
M2	9.83	18	.00	.97	1.05	1.03	45.83				
ΔM2-M1								1.83 ns	1	.17	

Notes:  $\chi^2$  = Chi-square; df= degrees of freedom; RMSEA= Root Mean Square Error of Approximation; NFI= Normed Fit Index; TLI= Tucker-Lewis Index; IFI= Incremental Fit Index; AIC= Akaike Information Criterion

<sup>&</sup>lt;sup>a</sup> Reported by the supervisors

<sup>\*\*\*</sup> p<.001; ns= non-significant

significant difference between the two models, Delta  $\chi^2(1)$ = 1.83, ns, which is to be interpreted in favor of the most parsimonious one, namely M1. On comparing all models, M1 was the model that showed the lowest AIC value.

To assess the mediation effect, the Sobel test (Sobel, 1988) was conducted, which showed non-significant results (Sobel t=0.36, p=.72). However, further analyses were conducted using the approach developed by Baron and Kenny (1986): (1) team social resources were positively and significantly related to the supervisor's perception of team performance ( $\beta$ = .33, p<.05); (2) team work engagement was positively and significantly related to the supervisor's perception of team performance ( $\beta$ = .29, p<.05); and finally, (3) the relationship between team social resources and team performance became non-significant ( $\beta$ = .28, p= .117) when team work engagement was introduced. The fact that the relationship between team social resources and team performance became non-significant suggests that team work engagement mediated the relationship between team social resources and team performance. Mediation was also tested by comparing the chi-square statistic of the partially mediated model (M2) with a third model constraining the path from team work engagement to team performance (M3) to the unstandardized coefficient of this path in M1 (for an application see Salanova et al., 2005). M3 fit the data with all goodness-of-fit indices meeting the criteria but the chi-square difference between M2 and M3 was not significant. Therefore, the influence of team social resources on team performance was mediated by team work engagement.

In conclusion, previous results using SEM and mediation analyses provide some evidence for M1, that is, the fully mediated model. The final model is depicted in Figure 2. As expected, team social resources have a positive and significant influence on team work engagement ( $\beta$ = .73, p<.001), which in turn is positively and significantly associated with team performance ( $\beta$ = .29, p<.05). It is interesting to note that team social resources explain 53% of the variance in team work engagement (R<sup>2</sup>= .53), and that this in turn accounts for 8.4% of the variance in team performance (R<sup>2</sup>= .08).

#### Discussion

Based on the JD-R Model (Demerouti et al., 2001), we hypothesized that team work engagement mediates the relationship between social resources of the team and performance, as measured by the supervisor's rating. Results suggest that team social resources are positively related to a commonly shared psychological state, namely team work engagement, which is in turn related to team performance.

At the theoretical level, the present study extends current knowledge about the key role of team work engagement in the process by linking team social resources and the supervisor's view of team performance. The JD-R Model receives support from the findings since they provide evidence of its theoretical validity to explain team-level processes. The underlying motivational process is also reinforced as team work engagement is observed to be a meaningful team well-being construct that mediates the impact of social resources on performance in teams. At the same time, the three inner components of team work engagement have been replicated at the team level, which enhances the validity of the three-factor model of work engagement.

As suggested by previous research, emotional contagion could be considered the fundamental underpinning process explaining how team members share a common idea about a team property such as team work engagement. This rationale could be applied to team social resources and team work engagement, since these constructs were aggregated from individual perceptions of team properties. Although the underlying crossover mechanism has not been revealed by our findings, we assume that emotional contagion could be the explanatory mechanism that is responsible for employee agreement – a prerequisite to be aggregated. Team social resources may trigger emotional contagion of team work engagement among employees through offering a pool of shared experiences. Embedded within the organizational environment, this common background (e.g., a supportive team climate, need for coordination and task interdependence within team working) can

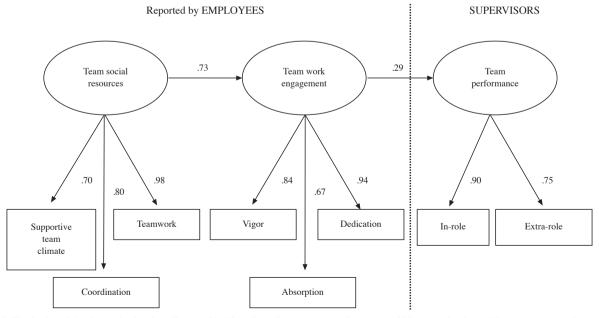


Figure 2. The final model with standardized coefficients (N= 62). All coefficients are significant at p<.001, except for the path between team work engagement and team performance, which is significant at p<.05

elicit the functioning of interactive processes between individuals at work. At this point, employees dispose of a shared scenario to interact both consciously and unconsciously in order to influence each other reciprocally and trigger the emergence of a positive shared state, as is the case of team work engagement (Bakker et al., 2006).

With regard to practical implications, results can be used as recommendations following the advice offered previously from the individual perspective of work engagement (Schaufeli & Bakker, 2004), but going deeper into the idea of fostering teambased resources. When teams are the main work structure in a given organization, promoting team-oriented policies will be the most efficient management behavior. Thus, the findings in the present study warn organizations of the need to take care of team social resources if positive consequences regarding employees and outcomes are desired. Therefore, engaged teams will provide enterprises with a unique competitive advantage (Macey & Schneider, 2008).

Specifically, results show the relevance of promoting a supportive team climate, coordination and team working in order to build more vigorous, dedicated and absorbed teams, which in turn will enhance their performance at work. Promoting a climate of psychological safety and rewarding constructive criticism as well as dealing with interpersonal problems in such a way that the supervisor is perceived as caring for his/her subordinates are approaches that are capable of fostering a supportive team climate. Coordination can be fostered by ensuring the existence of appropriate channels of communication among the team members. This will make it easier for the team to accomplish its goals while avoiding an additional source of stress that would lead to poor team performance. Lastly, recruiting and selecting applicants who complement team skills and considering the introduction of teambased retribution according to performance would help to boost team working. In general, conclusions derived from the results provide empirical evidence of previous recommendations on how to intervene so as to increase work engagement by focusing on social interactions (Schaufeli & Salanova, 2010).

Another practical implication is related to the relevant voice of supervisors. Obviously, the team leader plays a key role in increasing social team resources so that the team not only feels engaged, but also performs better. Our research shows that in doing so, good team leaders should be both considerate (i.e., improve the psychological team climate) and task-oriented (i.e., set clear goals and coordinate the efforts of team-members).

The present study has several limitations. The first one is that a convenience sample was used, which might compromise the generalizability of the results. However, it is a rather heterogeneous sample, including different teams from different enterprises. Secondly, the data was obtained by self-report measures, which might have caused common method bias. However, data were used from different sources, employees and supervisors. Furthermore, the Harman's single factor test suggested that common method bias is not very likely. Thirdly, two aggregation indices (i.e., ICC, for team work vigor, and AD<sub>M(I)</sub> for supportive team climate), although close to their cut-off values, did not reach the criteria to support aggregation. Although indices of this kind are based on arbitrary rules-of-thumb, these results could be compromising the validity of the team-level measures for these variables in some way. Conducting multilevel confirmatory factor analyses is also encouraged, as this methodology would enhance the multilevel validation of the work engagement measure at different levels of analysis. Finally, the present study is cross-sectional in nature. Although team performance was rated by the immediate supervisor, who is an independent informant, it is not possible to reach decisive conclusions about the causation between the variables included in the model. To deal with this limitation, further research might use longitudinal techniques that would uncover causal paths. The knowledge that emerged using two or more data waves would enhance the validity of the JD-R Model as a useful model of intervention also at the collective, team level, as well as offering a thorough comprehension of the crossover processes involved. Furthermore, reversed and reciprocal relationships could be tested to explore the existence of positive cycles and spirals between the variables analyzed and other key variables such as collective efficacy beliefs. The use of a multilevel methodology would also be highly recommended to explore cross-level relationships with enterprise-level variables that could be influencing and promoting work engagement within teams, as is the case of Human Resources Management practices. By so doing, we really will be ensuring that teams make it work.

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#### References

Acosta, H., Salanova, M., & Llorens, S. (2011). How organizational strategies predict team work engagement: The role of organizational trust. *Ciencia & Trabajo*, 41, 125-332.

Akaike, H. (1987). Factor analysis and AIC. *Psychometrika*, 52, 317-332. Arbuckle, J.L. (2009). *Amos 18 Users' guide*. Chicago, IL: SPSS.

Bakker, A.B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22, 309-328.

Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. Career Development International, 13, 209-223.

Bakker, A.B., Demerouti, E., De Boer, E., & Schaufeli, W.B. (2003).
Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior*, 62, 341-356.

Bakker, A.B., Rodríguez-Muñoz, A., & Derks, D. (2012). La emergencia de la Psicología de la Salud Ocupacional Positiva. *Psicothema*, 24(1), 66-72.

Bakker, A.B., Van Emmerik, H., & Euwema, M.C. (2006). Crossover of burnout and engagement in work teams. Work and Occupations, 33, 464-489.

Bakker, A.B., Van Emmerik, H., & Van Riet, P. (2008). How job demands, resources, and burnout predict objective performance: A constructive replication. *Anxiety, Stress, and Coping*, 21, 309-324.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

- Barsade, S.G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. Administrative Science Quarterly, 47, 644-675.
- Bentler, P.M. (1990). Comparative fit indexes in structural equation models. *Psychological Bulletin*, 107, 238-246.
- Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Burke, N.J., Finkelstein, L.M., & Dusig, M.S. (1999). On average deviation indices for estimating interrater agreement. Organizational Research Methods, 2, 49-68.
- Cooper, C. L., & Cartwright, S. (1994). Healthy mind; Healthy organization

  A proactive approach to occupational stress. *Human Relations*, 47, 455-471.
- Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499-512.
- Glick, W.H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. Academy of Management Review, 10, 601-616.
- Goodman, S.A., & Svyantek, D. (1999). Person-organization fit and contextual performance: Do shared values matter. *Journal of Vocational Behavior*, 55, 254-275.
- Hakanen, J., Bakker, A.B., & Schaufeli, W.B. (2006). Burnout and work engagement among teachers. The Journal of School Psychology, 43, 495-513.
- Hox, J. (2010). Multilevel analyses: Techniques and applications.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6, 1-55.
- James, L.R. (1982). Aggregation bias in estimates of perceptual agreement. Journal of Applied Psychology, 67, 219-229.
- Llorens, S., Bakker, A.B., Schaufeli, W.B., & Salanova, M. (2006). Testing the robustness of the job demands-resources model. *International Journal of Stress Management*, 13, 378-391.
- Llorens, S., Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, 23, 825-841.
- Macey, W.H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Richardson, J., & West, M.A. (2010). Engaged work teams. In S.L. Albrecht (Ed.), *Handbook of employee engagement. Perspectives*,

- issues, research and practice (pp. 323-340). Cheltenham, UK: Edward Elgar.
- Salanova, M., Agut, S., & Peiró, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217-1227.
- Salanova, M., Llorens, S., Cifre, E., Martínez, I.M., & Schaufeli, W.B. (2003). Perceived collective efficacy, subjective well-being and task performance among electronic work groups. *Small Group Research*, 34, 43-73.
- Salanova, M., Llorens, S., & Schaufeli, W.B. (2011). Yes, I can, I feel good, and I just do it! On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology: An International Review*, 60, 255-285.
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.
- Schaufeli, W.B., Bakker, A.B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30, 893-917.
- Schaufeli, W.B., & Salanova, M. (2010). How to improve work engagement? In S.L. Albrecht (Ed.), *Handbook of employee engagement*. *Perspectives, issues, research and practice* (pp. 399-415). Cheltenham, UK: Edward Elgar.
- Schaufeli, W.B., Salanova, M., Gonzalez-Romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Schaufeli, W.B., Taris, T.W., & Bakker, A.B. (2006). Dr. Jekyll and Mr. Hide: On the differences between work engagement and workaholism. In R.J. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193-217). Northhampton, UK: Edward Elgar.
- Sobel, M.E. (1988). Direct and indirect effects in linear structural equation models. In J.S. Long (Ed.), *Common problems/proper solutions* (pp. 46-64). Beverly Hills, CA: Sage.
- Torrente, P., Salanova, M., Llorens, S., & Schaufeli, W.B. (in press). From I to We: The factorial validity of a team work engagement scale. In J. Neves & S.P. Gonçalves (Eds.), *Occupational Health Psychology: From burnout to well-being*. Lisboa: Edições Sílabo.
- Wilson, M., Dejoy, D., Vandenberg, R., Richardson, H., & McGrath, A. (2004). Work characteristics and employee health and well-being: Test of a model of healthy work organization. *Journal of Occupational and Organizational Psychology*, 77, 565-588.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009).
  Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82, 183-200.