Psicothema

Cognitive processes of emotional regulation, burnout and work engagement

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Abstract

Background: Workers constantly resort to cognitive processes of emotion regulation to deal with emotions they experience in the workplace. These processes belong either to the "automatic" (preconscious and fast) or the "elaborative" (conscious and slow) mode. This study aims to determine the role of these variables in the work setting and to analyze their relationship with positive and negative affect, engagement and burnout. **Method:** 350 employees (54.8% men and 45.2% women) were presented with several instruments measuring burnout, engagement, affect and cognitive emotion regulation strategies in a prospective study. An explanatory model was tested through structural equation modeling analysis. **Results:** Acceptable fit indices and a significant explanatory value both for burnout (61%) and engagement (58%) were obtained. The use of "automatic" cognitive regulation strategies was associated with the presence of negative affect and burnout whereas "elaborative" processes were associated with positive affect and engagement. **Conclusions:** Our findings underscore the importance of the role of cognitive emotion regulation in organizational settings.

Keywords: Cognitive processes, emotion regulation, affect, engagement, burnout.

Resumen

***Procesos cognitivos de regulación emocional, burnout y engagement en el trabajo.* Antecedentes:** los trabajadores apelan constantemente a procesos cognitivos de regulación emocional para lidiar con las emociones que experimentan en el trabajo. Estos procesos se pueden distinguir en dos modos de procesamiento, uno es preconsciente y rápido, llamado "automático"; y otro es consciente y más lento, llamado "elaborativo". El objetivo de este trabajo fue determinar el papel de estas variables en el entorno de trabajo y analizar su relación con el afecto positivo y negativo, el burnout y el engagement. **Método:** 350 trabajadores (54,8% hombres y 45,2% mujeres) completaron varios instrumentos que miden burnout, engagement, afecto y estrategias cognitivas de regulación emocional en un estudio prospectivo. Se testeó un modelo explicativo a través del análisis de ecuaciones estructurales. **Resultados:** se obtuvieron valores aceptables en los índices de ajuste y un valor explicativo significativo tanto para el burnout (61%) como para el engagement (58%). El uso de estrategias cognitivas de regulación emocional "automáticas" se relacionó con la presencia de afecto negativo y burnout, mientras que el uso de procesos "elaborativos" se relacionó con la experiencia de afecto y compromiso positivo. **Conclusiones:** estos resultados corroboran la importancia del papel de la regulación cognitiva de las emociones en el entorno organizacional.

Palabras clave: procesos cognitivos, regulación emocional, afecto, engagement, burnout.

Research on occupational well-being has focused particular attention in recent years on two major topics, burnout and work engagement. Burnout is a persistent mental state related to work, predominated by negative affect such as stress, anxiety and worry, and has a huge impact on people's health (Grandey, 2015). This syndrome is characterized by several dimensions: 1) ex*haustion,* 2) *mental distance* and 3) *professional inefficacy*. Since mental distance includes *cynicism* and *depersonalization* as two separate dimensions, a four-dimension model has more recently been proposed for burnout (Salanova et al., 2005). Engagement has

been proposed as the opposite of the burnout state (Salanova, Schaufeli, Llorens, Peiró, & Grau, 2000) and is defined as a positive motivational construct related to *vigor* (high energy levels while working), *dedication* (manifested by significance, pride, and goals related to the work done), and *absorption* (full concentration levels at work). As indicated by Bakker & Albrecth (2018), engaged employees tend to experience positive affect, such as joy, enjoyment and enthusiasm, which expands the cognitive-behavioral repertoire involved in their work. Moreover, engaged employees can focus and devote all their resources and skills to their work. They also tend to show greater collaboration with their immediate environment, which allows them to effectively meet the demands of their work and benefit the whole organization (Salanova, Llorens, & Schaufeli, 2011). It is therefore highly relevant to identify those factors that promote "healthy" employees who are "engaged" and feel fulfillment in their work, since these aspects have a positive influence both on the workers themselves (Lent &

Brown, 2008) and on the well-being of the company as a whole (Schaufeli, Bakker, & Van Rhenen, 2009). Furthermore, knowing how to prevent the burnout syndrome, which has a negative impact on productivity and people's health, could help tackle one of the biggest problems of the twenty-first century (Prasad, 2016).

Recent studies on Positive Organizational Psychology have highlighted the relevance of emotional factors in the work setting owing to their explanatory value in assessing burnout and engagement as mediators of occupational well-being (Castellano, Cifre, Spontón, Medrano, & Maffei, 2013; Lisbona, Palaci, Salanova, & Frese, 2018; Rodríguez-Mantilla & Fernández-Díaz, 2017). Workers continually appeal to different processes of emotion regulation (ER) in order to take charge of the emotions they experience in their work setting (Grandey, 2015). These same ER processes can be of relevance in preventing burnout (Arnold, Connelly, Walsh, & Martin Ginis, 2015), promoting work engagement on the part of employees (Salanova et al., 2011), creating more adaptive organizational behavior (Rodríguez García, López-Pérez, Férreo Cruzado, Fernández Carrascoso, & Fernández, 2017) and are closely related to job satisfaction (Côté & Morgan, 2002). Indeed, based on the model of emotional dissonance, the latter authors showed that the suppression of pleasant emotions decreased work satisfaction, while their amplification increased it. These findings are consistent with those reported by Grandey & Melloy (2017) who, after a systematic review, concluded that ER in the work setting has a direct impact on variables such as work satisfaction, burnout, work performance and task abandonment.

The concept of ER has been defined as the processes that influence the way in which people experience and express their emotions (Gross, 1998). People are able to reroute the spontaneous flow of their emotions, increasing, maintaining or decreasing them (Gross, 2015). A recent meta-analysis of the most accepted ER strategies in the literature lists ten strategies: acceptance, behavioral avoidance, distraction, experiential avoidance, expressive suppression, mindfulness, problem-solving, reappraisal, reflection and concern (Naragon-Gainey, McMahon, & Chacko, 2017). As seen, there are many strategies for regulating emotions and the cognitive processes involved during an emotional episode play a key role (Garnefski, Kraaij, & Spinhoven, 2001). Along these lines, the latter authors propose a model of cognitive emotion regulation by selecting nine ER cognitive strategies: self-blaming, blaming others, rumination, catastrophizing, putting into perspective, positive focus, positive reappraisal, acceptance, and planning. Such strategies can be grouped into one of two systems: "automatic" or "elaborative" processing (Clore & Ortony, 2000; Medrano, Muñoz-Navarro, & Cano-Vindel, 2017). Automatic processing is characterized by being fast, preconscious and difficult to control whereas elaborative processing is voluntary, conscious, and slow. Automatic ER processes contain functions such as rumination or catastrophizing that enable situations of immediate threat to be dealt with. However, they can in turn increase anxiety or alert responses (Beck & Clark, 1997). Elaborative processes, such as cognitive reappraisal, focusing on plans or acceptance, facilitate a more rational and profitable interpretation of problems, decreasing anxiety responses. These processes, as mentioned by Medrano et al. (2016), could be explained from the perspective of evolutionary psychology. Humans have developed different systems to detect threats and react adaptively throughout evolutionary history, thus increasing their chances of safety and survival. These processes developed at earlier stages of evolution are automatic, simple, fast,

and without voluntary control. However, as our cognition system evolved, we acquired more complex, rational and controlled capabilities for conscious elaborative processes that can influence our experienced emotions in a beneficial manner.

Accordingly, this study aims to determine the role of ER in the work setting and more specifically, to analyze its relationship with workers' positive and negative affect, engagement and burnout. The following hypotheses are proposed: There is a direct, positive relationship between ER elaborative processes and positive affect (*hypothesis 1*) and a direct relationship between ER elaborative processes and engagement (*hypothesis 2*). There is a direct, negative relationship between ER elaborative processes and negative affect (*hypothesis 3*). There is a direct, positive relationship between ER automatic processes and negative affect (*hypothesis 4*) and a direct relationship between ER automatic processes and burnout (*hypothesis 5*). There is a direct, negative relationship between ER automatic processes and positive affect (*hypothesis 6*). There is a direct, negative relationship between negative affect and engagement (*hypothesis 7*) and a direct, positive relationship between negative affect and burnout (*hypothesis 8*). Finally, a direct, negative relationship is hypothesized between positive affect and burnout (*hypothesis 9*) and a direct, positive relationship between positive affect and engagement (*hypothesis 10*).

Method

Participants

This study involved the participation of 350 workers belonging to different companies in the city of Córdoba, Argentina. The sample comprises workers of both genders (45% are women) aged between 20 and 60 years (M = 36.44; SD = 8.28), selected through non-probability, accidental sampling. To ensure a greater heterogeneity in the sample, workers from different sectors and areas were included (Table 1).

Instruments

Burnout: To assess exhaustion, cynicism, and inefficacy, the Spanish version of the Maslach Burnout Inventory-General Survey (MBI-GS) (Salanova et al., 2000) was used. To assess depersonalization, we used the Spanish version of the Maslach Burnout Inventory Human Services-Survey (MBI-HSS; Gil-Monte, 2005). A total of 17 items corresponding to the four dimensions of burnout were administered: *exhaustion* (4 items), *cynicism* (4 items), *depersonalization* (5 items) and *inefficacy* (4 items). To respond to the above-mentioned items a response scale was used ranging from 0 ('never') to 6 ('always/every day'). We used the version adapted to the worker population of Argentina (Spontón, Trógolo, Castellano, & Medrano, *in press*), which has satisfactory psychometric properties. Analyses using the Cronbach alpha coefficient showed that the scales have an acceptable internal consistency (exhaustion = .77, cynicism = .84 depersonalization = .71 and inefficacy = .80). The MBI-GS scores correlated significantly and in the expected direction with the levels of engagement, negative affect and positive affect, thus providing external evidence of validity. The Cronbach alpha coefficients found in the sample of this study for each dimension were: .72 (exhaustion), .80 (cynicism), .87 (depersonalization) and .64 (inefficacy).

	Total sample (n = 350)	
	N	**%**
Gender		
Female	161	46
Male	189	54
Type of work		
Company	175	50
Independent	77	22
Government	35	10
Other	63	18
Sector		
Public	84	24
Private	266	76
Size of the organization		
Small (0-50 employees)	161	46
Medium (50 to 250 employees)	154	44
Large (more than 205 employees)	35	10
Type of Company		
Trade	77	22
Services	231	66
Industry	21	6
Other	21	6
Income		
Less than $15,000	126	36
Between $15,000 and $35,000	168	48
More than $35000	56	16

Table 1
Work and demographic characteristics of sample

Engagement: The Spanish version of the Utrecht Work Engagement Scale (UWES; Salanova et al., 2000) was used, enabling three dimensions of engagement to be evaluated: *vigor* (6 items), *dedication* (6 items) and *absorption* (5 items). All examinees used a seven-point scale (from 0 'never' to 6 'always/every day'), to respond to each item. Studies conducted in Argentina (Spontón, Medrano, Maffei, Spontón, & Castellano, 2012) indicate that the scale retains the same factorial structure as the original scale; the reliability values calculated using the acceptable Cronbach alpha coefficient were .69, .76 and .88 for the dimensions of absorption, vigor and dedication, respectively. In addition, Spontón et al. (2018) provided external evidence of validity by correlating UWES scores with professional self-efficacy. The values of internal reliability for each dimension in this work were: .85 (dedication), .82 (vigor), and .76 (absorption).

Affect: The *Positive and Negative Affect Schedule* (PANAS; Watson, Clark, & Tellegen, 1988) was used, which consists of 20 words describing different feelings and positive emotions (for example, active, strong, inspired) and negative emotions (for example, irritated, fearful, nervous). The evaluated subject used a five-point scale (from 1 = 'very little or nothing' to 5 = 'always or almost always') to show the extent to which he/she experienced each of the mentioned emotions. The validated version for the population of Córdoba, Argentina, was used (Moriondo, Palma, Medrano, & Murillo, 2010; Medrano et al., 2015). The scale has an acceptable level of internal consistency (α = .73 positive affect; α = .82 negative affect). In order to achieve a greater delimitation of the examined construct, the general scale prompt was slightly modified. Thus, workers were asked to indicate how often they experienced positive and negative affect in their workplace. In this study, PANAS's internal consistency was good (α = .88 positive affect; α = .82 negative affect).

Cognitive Emotion Regulation: The *Cognitive Emotion Regulation Questionnaire* (CERQ: Garnefski & Kraaij, 2007) is an instrument consisting of 36 items that examines the ability to regulate personal emotions through the use of nine cognitive-type strategies. A five-point scale as adapted by Medrano, Moretti, Ortiz, and Pereno (2013) was used, ranging from 'never or almost never' (1) to 'always or almost always' (5). The adapted version has nine underlying factors: 1) Self-blame (α = .69), 2) Other-blame (α = .82), 3) Rumination (α = .70), 4) Catastrophizing (α = .68), 5) Positive refocusing (α = .83), 6) Planning (α = .66), 7) Positive reappraisal (α = .77), 8) Putting into perspective (α = .70), and 9) Acceptance (α = .59). The scales can be grouped into two factors, termed automatic processes (rumination, catastrophizing, self-incriminating and blaming others) and elaborative processes (positive reinterpretation, focus on plans, acceptance, positive focus and putting into perspective). CERQ scores have been shown to be valid for predicting emotional interference, positive affect and negative affect (Medrano et al., 2013). The values of internal reliability for each dimension in the present study were low: 1) Self-blame (α = .54), 2) Other-blame (α = .62), 3) Rumination (α = .65), 4) Catastrophizing (α = .60), 5) Positive refocusing (α = .81), 6) Planning (α = .61), 7) Positive reappraisal (α = .67), 8) Putting into perspective (α = .58), and 9) Acceptance (α = .41). Since some of the sub-dimensions of the variables had low levels of internal consistency (alpha values below .70), it was decided to "collapse" the items of each dimension into a single score in order to achieve more reliable measures: automatic processes (α = .75) and elaborative processes (α = .80)".

Procedure

A prospective, ex-post facto study was conducted, with no manipulation of independent variables. A standardized procedure was used to ensure all participants received the same instructions. The instruments were administered collectively and during regular working hours with prior authorization from the administration of each company. The questionnaires were administered in paper format, in a quiet physical space away from the place where the workers habitually carry out their tasks. The approximate time taken to complete the questionnaires was 20 minutes per participant. The investigators were present during the administration of the tests in order to clear up any doubts that arose and to verify the independent administration by the participants.

This research was evaluated and approved by the Institutional Ethics Committee of Siglo 21 University, Córdoba, Argentina. All participants gave informed consent, and the workers' data confidentiality and the anonymity of their responses was guaranteed. Once the data were analyzed, brief and anonymous reports were offered to the participating companies.

Data analysis

To perform the statistical analysis the collected data were loaded into the IBM SPSS 17 version. An initial exploratory data analysis was conducted to evaluate the statistical assumptions required for the use of *Structural Equation Modeling* (SEM). In this way, univariate and multivariate normality were examined, descriptive

statistics were calculated, and the existence of multicollinearity was analyzed considering the bivariate relationships between variables.

As the current study relies exclusively on self-report data, we tested for possible bias due to common method variance using Harman's single factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Different models were specified to examine the hypotheses. First, an orthogonal contribution model of cognitive processes, in which automatic processes only influence negative affect and elaborative processes only influence positive affect (model 1), was compared with a cross-contribution model (model 2), in which automatic and elaborative processes influence both negative and positive affect. We proceeded in a similar manner to contrast the hypotheses referring to the influence of affect on burnout and engagement. An orthogonal contribution model of affect, where positive affect only influences engagement, and negative affect only influences burnout (model 3) was compared with a cross-contribution model, where positive and negative affect influence both burnout and engagement (model 4). All models were specified in the AMOS program, 17 version.

To evaluate the fit of the models, several fit indicators were used: the absolute fit index (χ^2), the goodness of fit index (GFI), the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). GFI, TLI, and CFI values greater than .90 and RMSEA values smaller than .08 indicate acceptable model fit, while values greater than .95 (for GFI, TLI and CFI) and smaller than .05 (for RMSEA) are indicative of excellent fit (Hu & Bentler, 1999). The division of the coefficient χ^2 by the degrees of freedom (χ^2/df) was also considered; according to the literature, values lower than 3 indicate a good adjustment (Medrano & Muñoz-Navarro, 2017). Finally, we calculated the Akaike Information Criterion (AIC; Akaike, 1987) in order to compare competitive models, since it is convenient to compare the suitability of non-tested models that fit into the same correlation matrix. The lower the AIC index, the better the fit (Byrne, 2001).

Results

An initial exploration and descriptive analysis was carried out to assess the pattern of missing cases, to identify univariate and

multivariate atypical cases, to check the assumptions of normality and to determine the behavior of the variables. The "missing values analysis" of the SPSS revealed a random pattern of missing cases, so a method of case allocation was used to replace the missing values (mean in the series). Only 12 univariate atypical cases and 3 multivariate atypical cases were observed; these were retained in the base considering their low ratio. Table 2 shows the descriptive statistics of mean, standard deviation, skewness, and kurtosis of the variables in the study. As can be seen, all variables have levels of skewness and kurtosis lower than ±2, so the univariate normality assumption is corroborated (George & Mallery, 2010).

Using the Pearson correlation coefficient, the bivariate relationships (Table 2) were examined. These are theoretically coherent and no *r* values higher than .90 were observed, thus ruling out the existence of multicollinearity among variables (Tabachnick & Fidell, 2001).

Since some of the sub-dimensions of the variables had low levels of internal consistency (alpha values below .70), it was decided to "collapse" the items of each dimension into a single score, thus providing more reliable measures.

The multivariate normality assumption was examined using the Mardia index (Mardia= 6.36; Z =1.54; p = 0.06). Considering

Table 2
Descriptive statistic of Mean (M), Standard deviation (DT), Asymmetry (A) y Kurtosis (K)

Variables	M	DT	A	K
Exhaustion	2.43	1.34	.12	-.72
Depersonalization	.92	.85	1.03	.99
Cynicism	1.18	1.13	1.06	.72
Inefficacy	.80	.83	1.01	.36
Vigor	4.80	.91	-1.15	1.85
Dedication	4.61	1.14	-1.28	1.57
Absorption	4.24	1.02	-.45	-.37
Positive affect	3.86	.73	-.76	.03
Negative affect	1.54	.54	1.15	.83
Elaborative processes of emotion regulation*	55.40	8.28	-.21	-.21
Automatic processes of emotion regulation**	25.93	6.85	-.03	-.48

Note: * Values between 30 and 73; ** Values between 12 and 42

Table 3
Bivariate correlations between affect regulation, emotions, burnout and engagement

	Variables	1	2	3	4	5	6	7	8	9	10
1	Elaborative processes										
2	Automatic processes	,11									
3	Positive affect	,46**	-,10								
4	Negative affect	-,07	,44**	-,22*							
5	Vigor	,43*	-,13*	,75*	-,21*						
6	Dedication	,36*	-,09	,74*	-,19*	,74**					
7	Absorption	,21*	,01	,45*	-,18*	,58*	,59*				
8	Exhaustion	-,08	,42*	-,31*	,52*	-,30*	-,24*	-,03			
9	Depersonalization	-,01	,31*	-,15*	,41*	-,19*	-,19*	-,14*	,48*		
10	Cynicism	-,19*	,18*	-,57*	,32*	-,57*	-,68*	-,46*	,34*	,26*	
11	Inefficacy	-,17*	,23*	-,28*	,19*	-,29*	-,13	-,07	,20*	,17*	,26*

Note: * p<0,01

that the Mardia values are below the critical value of .70 suggested by Rodríguez Ayán and Ruiz (2008), the "Maximum Likelihood" (ML) was used as the calculation method. This method is recommended in the literature as being the most efficient in cases of a wide sample of normally distributed data (Medrano & Muñoz-Navarro, 2017). Firstly, we conducted Harman's single factor test. The results revealed a poor fit to the data ($\chi2(9) = 95.62$, $GFI = 0.81$, $CFI = 0.72$, $TLI = 0.53$, $RMSEA = 0.25$). Consequently, common method variance is not a serious deficiency in our dataset.

A series of four models was specified, tested and compared (see Figure 1). Table 4 presents the fit indices for these models. Model 4 is the only one of the four models to meet Hu and Bentler's (1999) criteria for a good fit; models 1, 2, and 3 showed a much worse fit. From the analysis of each model it is clear that some of the postulated hypotheses are not verified. The direct relationship between elaborative processes, engagement and negative affect is not statistically significant. It can also be observed that negative affect does not contribute significantly to engagement. In other words, engagement is explained fundamentally by positive affect and not by levels of negative affect.
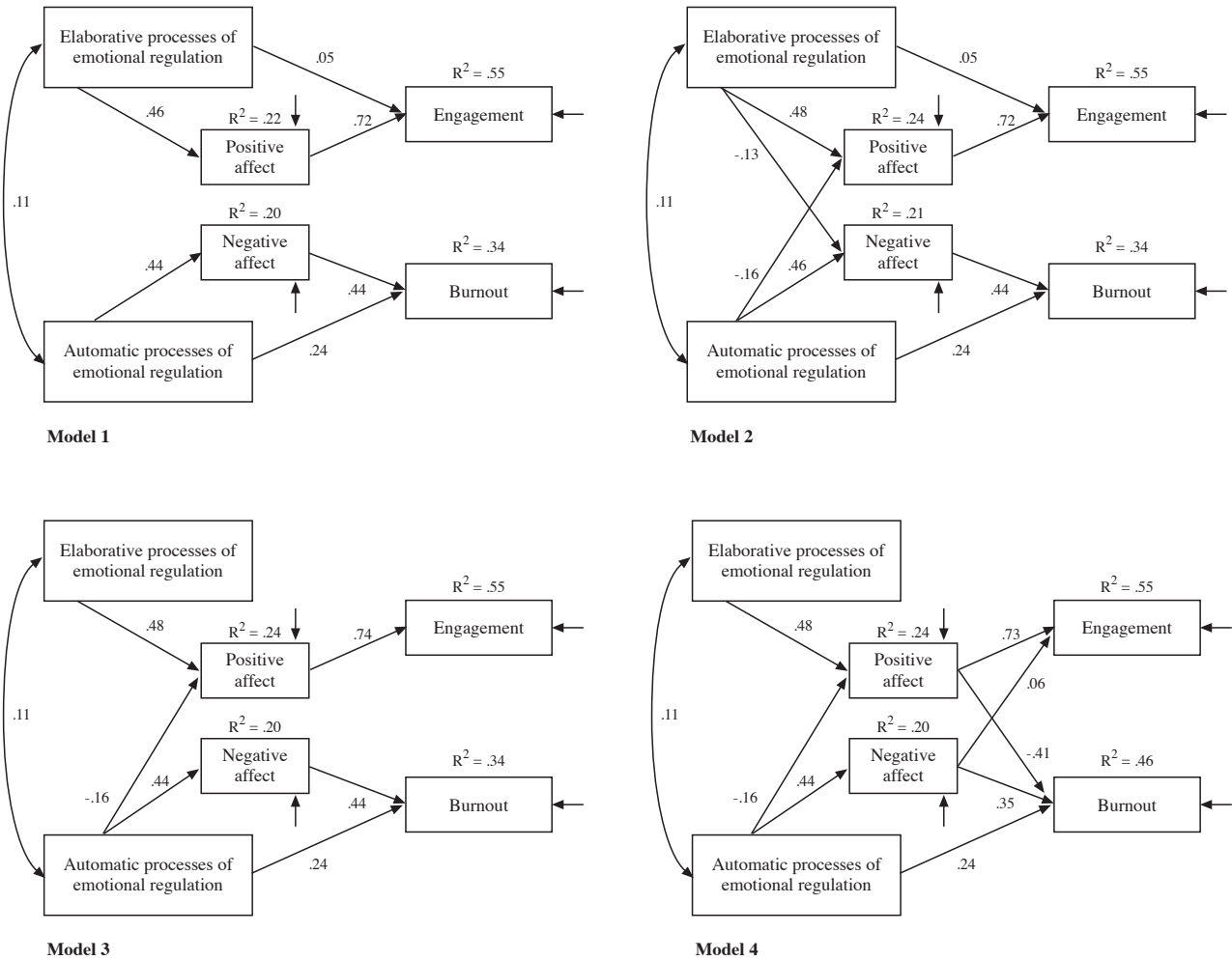

Figure 1. The four variations of models of cognitive emotion regulation, affect, burnout and engagement

	χ^2	df	CFI	GFI	TLI	RMSEA (90% IC)	χ^2dif	AIC
Model 1	60.54*	8	.83	.90	.68	.20 (.16 - .27)	7.56	86.54
Model 2	51.86*	6	.85	.92	.63	.22 (.17 - .28)	8.64	81.86
Model 3	55.74*	8	.85	.91	.71	.19 (.15 - .24)	6.96	81.74
Model 4	12.69*	6	.98	.98	.95	.08 (.01 - .15)	2.11	42.69
Final Model	13.80*	7	.97	.98	.95	.08 (.00 - .14)	1.97	41.78

Table 4
Adjustment indices

Note: * p<0,01

When these parameters were removed (Table 4), the fit of the model was improved in a Final Model (see Figure 2). The standardized regression coefficients shown in Figure 2 are all statistically significant. It should be mentioned that the model has a high explanatory value, explaining 55% of the engagement variance and 45% of the burnout variance. When considering the total effects, it can be observed that elaborative process (β total=.36) and positive affect (β total=.74) have a higher predictive value for workers' engagement. Automatic process (β total=.46) and positive affect (β total= -.41) have a higher predictive value for workers' burnout.
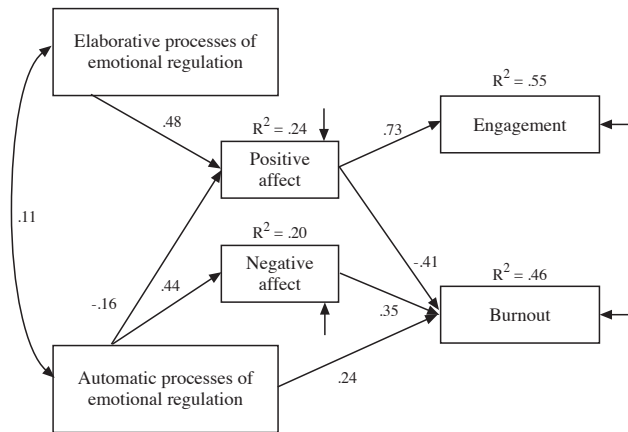

Figure 2. Final model of cognitive, affect, burnout and engagement. *Note*: All the path of the model was significant at level *p*<0.05

Discussion

The role of emotions has been considered a predictor of burnout (Castellano et al., 2013) and engagement (Lisbona et al., 2018) in the workplace. However, there are still few studies that inquire into the role of ER strategies. In this paper, an explanatory model of burnout and engagement in response to worker ER was evaluated. The fit of the model was acceptable and many hypotheses were corroborated with the exception of hypothesis 2 (direct, positive relationship between ER elaborative processes and engagement), hypothesis 3 (direct, negative relationship between ER elaborative processes and negative affect) and hypothesis 7 (direct, negative relationship between negative affect and engagement).

Basically, it can be seen that workers who activate elaborative processes of ER (for example by positively reinterpreting a negative fact, or putting it into perspective) experience more positive affect, greater engagement and less burnout. On the contrary, workers who tend to use mostly automatic ER processes (such as rumination or catastrophizing) tend to have more negative affect, more burnout and less positive affect. These findings have a relevant impact both at the theoretical and practical levels.

As in previous studies (Garnefski et al., 2001; Gross, 2015), our study shows a higher predictive value of positive affect and elaborative processes of ER (for example, positive reappraisal). Moreover, it can be observed that negative affect is not a significant predictor of engagement in this model. These results point to the importance of considering the "positive" factors of organizational behavior. As emphasized by Positive Organizational Psychology

(Salanova et al., 2000; 2011), focusing on the dysfunctional factors is not enough. To achieve a comprehensive approach to occupational health it is necessary to pay due attention to those factors that promote the optimal psychosocial functioning of employees. The findings of the present study therefore highlight the role played by elaborative processes in the regulation of positive affect.

Our findings are consistent with previous theoretical proposals. Thus, Côté, Gyurak, & Levenson (2010) noted that the use of elaborative processes of ER (such as positive reappraisal or focus on plans) increased workers' feelings of satisfaction and decreased their intention to quit. The opposite happened when automatic processes of ER (such as catastrophizing) predominated: intentions to quite increased and the levels of job satisfaction decreased. The main contribution of ER elaborative processes in relation to workers' engagement may lie in the fact that they enable pleasant emotions to be amplified. As Fredrickson & Joiner (2018) point out, positive emotions, in addition to generating a pleasant feeling, are a means to expand and develop a persons' resources. This coincides with the "resources/demands" theory (Schaufeli et al., 2009), whereby workers with greater resources will experience higher levels of engagement and those with fewer resources will experience higher levels of burnout.

On a practical level, the results of this study provide a body of evidence to support organizational intervention focused on training to enable ER elaborative processes in workers. Programs of this nature not only increase workers' health, but also enhance their degree of job satisfaction and engagement; this ultimately affects their job performance, of considerable importance to the organization as a whole (Côté et al., 2010). In this sense, it would be beneficial for all concerned to design and implement training programs in ER techniques (Braunstein, Gross, & Ochsner, 2017) so that workers can boost the impact of positive affect and inhibit or decrease their negative affect. Such programs will strengthen workers' self-regulatory capacity, providing them with resources to lower the levels of negative affect and burnout (in the dimensions of cynicism, exhaustion, depersonalization and inefficacy) while increasing positive affect and engagement (in the dimensions of vigor, dedication and absorption).

Some limitations merit consideration. The workers participating in the present study were selected from a non-probability sample, so its representativeness may be biased. In fact, the sample had a higher proportion of private sector workers (76%). It would be convenient to carry out studies with samples of public sector workers in order to examine the invariance of the models. Unfortunately, the sample size of this study does not allow such analyses to be carried out (Medrano & Muñoz-Navarro, 2017). Beyond this limitation, it is important to emphasize that the sample is sufficiently heterogeneous in relation to income level, type of work and size of the organization.

According to Salanova et al. (2011), the relationship between engagement and positive affect is better conceptualized when it is considered as a sequence of psychological experiences rather than as a temporarily isolated episode. This aspect may constitute the main limitation of this study, since the different instruments were applied simultaneously, without leaving temporal intervals between administrations. For this reason, the study should be replicated in the future, developing a plan for data collection in different phases, with time intervals between administrations. This may provide greater assurance that the independent variables precede one another and, as a whole, of the effect of those on the dependent variable.

Another useful line of research would be to assess the effectiveness of an ER training program considering as a dependent variable the levels of positive and negative affect, as well as workers' levels of engagement and burnout. This type of training program would be aimed at increasing the use of elaborative processes in ER, thus contributing to improved levels of occupational health in organizations and companies.

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