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RESEARCH ARTICLE

Engaged, Workaholic, Burned-Out or Just 9-to-5? Toward a Typology of Employee Well-being

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Abstract

The aim of this study was to establish a typology of employee well-being, together with its psychosocial antecedents and consequences. Results obtained with a sample of 786 full-time employees from different occupational sectors show four types of employee well-being: 9-to-5 or relaxed, work engaged or enthusiastic, workaholic or tense, and burned-out or fatigued, each having different relationships with job and personal characteristics. This study provides evidence of a parsimonious, theory-based classification of employee well-being and contributes to the existing literature about work investment because meaningful relations were found between various types of employee well-being, and heavy and soft work investors. Copyright © 2013 John Wiley & Sons, Ltd.

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Keywords

employee well-being; work investment; workaholic; burnout; work engagement; fatigue; typology

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Introduction

Employee well-being is a traditional core issue for job stress and occupational health research. Although different psychological constructs have been used to describe employee well-being (e.g. happiness at work, job burnout, work engagement, flow at work and job satisfaction), a systematic classification has still not been put forward. As Anderson, Jané-Llopis, and Cooper (2011) correctly noted, to date, there is no single agreed-upon definition of what well-being is.

Employee well-being has been studied from different theoretical perspectives (Busseri, Sadava, & Decourville, 2007), although an overarching framework is still lacking. The main objective of this study is to *integrate* three different approaches to well-being at work, namely (1) Warr's (1990, 2007) affective approach (which distinguishes between arousal and pleasure), (2) Csikszentmihalyi's (1990) cognitive approach (which is based on the balance between skills and challenges) and (3) González-Romá, Schaufeli, Bakker, and Lloret's (2006) affective-cognitive approach (which distinguishes two dimensions: energy and identification). The result is a parsimonious, theory-based taxonomy of employee well-being. Next, we validate this classification system using job (job demands and job resources) and personal characteristics (personal resources), as well as positive

and negative outcomes. Additionally, we are interested in the relationship between different types of employee well-being, and high and low investment at work.

Three approaches to employee well-being

The affective approach

Well-being refers to people's evaluations of their life in both affective and cognitive terms (Diener, 2000). Initial studies showed that two affective dimensions underlie psychological well-being: pleasure (valence) and energy (arousal) (Watson & Tellegen, 1985). The pleasure axis reflects how well one is feeling, whereas the orthogonal activation axis refers to the mobilization of energy. Together, these two dimensions constitute the 'circumplex model' of well-being (Russell & Carroll, 1999), which postulates that affective states can be located on the circumference of the circle (Plutchik & Conte, 1997) that is defined by the two orthogonal axes reflecting valence and arousal. Negative and positive affect constitute the end points of the pleasure dimension, whereby negative affect is characterized by feelings such as anger, fear and nervousness, whereas positive affect, in contrast, is characterized by feelings such as enthusiasm, energy and happiness (Watson, 2000; Watson & Tellegen, 1985).

Warr (1990, 2007) developed a bipolar affective well-being model for employees that includes job-related positive and negative affect. He considered three main axes in his model, two of which are identical to the traditional circumplex model of Watson and Tellegen (1985), i.e. energy and pleasure. The energy dimension, however, is not considered to reflect specific types of well-being, and its poles are therefore left unlabelled. In addition, two diagonal axes are postulated: anxious–contented and depressed–enthusiastic. Warr (2007) represented the diagram of his model of employee affective well-being as elliptical (rather than circular) in order to indicate that the pleasure dimension is of greater importance than the energy dimension. Pleasure may differ substantially across situations, and these differences are more likely to be reflected in well-being than in variations in energy. Recently, Warr and Clapperton (2010) pointed out that feelings of happiness can be either more activated (in terms of enthusiasm and elation) or less activated (relaxed and contented). The same would apply to feelings of unhappiness: when people feel bad, they might be anxious, tense and worried (high activation) or sad, depressed and gloomy (low activation).

The cognitive approach

Csikszentmihalyi's (1990) Channel Model seeks to explain flow experiences by focusing on cognitive aspects of well-being. Flow is defined as a condition in which people are so involved in an activity that nothing else seems to matter at that moment. This peak experience is so enjoyable that people will perform the activity even at great cost for the sheer sake of doing it. According to the Channel Model, flow occurs when there is a balance between two basic cognitive dimensions: a high level of (perceived) challenges and a high level of (perceived) skills. Csikszentmihalyi (1990) pointed out that in order to experience flow, challenges and skills must not only be in balance but must also exceed certain levels so that the complexity of the activity is such that new skills are developed and new challenges are taken on. Applied to the work domain, this means that employees are likely to experience flow when their challenges at work (job demands) match their professional skills at a high level (Rodríguez-Sánchez, Schaufeli, Salanova, Sonnenschein, & Cifre, 2011). In addition, the model allows a distinction to be made between flow and boredom, because boredom is experienced when employees' skills exceed their job challenges (Loukidou, Loan-Clarke, & Daniels, 2009). In contrast, when job challenges are high and skills are poor, employees are likely to feel overwhelmed and anxious (Llorens, Salanova, & Rodríguez, 2013).

The affective-cognitive approach

González-Romá et al. (2006) proposed a model of burnout and work engagement, as indicators of employee well-being, using two axes. Traditionally, burnout is considered to be a reaction to chronic

occupational stress that is particularly characterized by emotional exhaustion (the draining of emotional resources) and mental distance (a cynical attitude toward one's job) (Salanova et al., 2005; Schaufeli & Taris, 2005). Work engagement, on the other hand, is considered to be the conceptual opposite of burnout (Maslach, Schaufeli, & Leiter, 2001) and is defined as

“a persistent, positive affective-motivational state of fulfillment characterized by vigor (high levels of energy and mental resilience while working), dedication (being strongly involved in one's work), and absorption (being fully concentrated and happily engrossed in one's work)” (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 72).

Various studies have shown that, in fact, vigour and dedication constitute the core dimensions of work engagement (e.g. Llorens, Schaufeli, Bakker, & Salanova, 2007; Salanova, Llorens, & Schaufeli, 2011). In the study by González-Romá et al. (2006), exhaustion and vigour were scalable on a single underlying bipolar dimension labelled 'energy', whereas cynicism and dedication were scalable on another bipolar dimension 'identification'.

Toward a taxonomy of employee well-being

Our integrative model is built upon the complementarities of the previous models. Figure 1 integrates the three approaches so as to classify the particular aspects of work-related well-being, as discussed earlier, into a multi-axial classification that includes (1) pleasure and arousal, (2) depression and enthusiasm, (3) challenge and skills, and (4) energy and identification. Our first aim was to test the validity of this taxonomy of work-related well-being. Different types of employee well-being (relaxed, enthusiastic, tense and fatigued) are proposed depending on their hypothesized scores on each of the five dimensions of well-being established by previous theorizing and research (energy, pleasure, challenge, skills and identification).

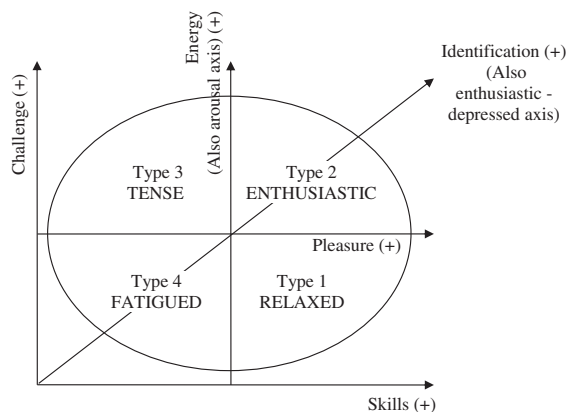


Figure 1. The research model

More specifically, we formulate the following:

Hypothesis 1: Four types of employee well-being exist: type 1 (relaxed) is characterized by low scores on challenge, energy and identification, and high scores on pleasure and skills (Hypothesis 1a); type 2 (enthusiastic) is characterized by high scores on all five dimensions (Hypothesis 1b); type 3 (tense) is characterized by high scores on skills, energy, challenge and identification, and low scores on pleasure (Hypothesis 1c); and type 4 (fatigued) is characterized by low scores on all five dimensions (Hypothesis 1d).

Work investment, job characteristics and employee well-being

According to Snir and Harpaz (2012), heavy work investment can be considered a two-dimensional concept composed of time and effort at work. A question may be raised, though, regarding whether a heavy work investor has to be high on both dimensions in order to be classified as such. There are some indications that time and effort investments in work are positively correlated (Snir & Zohar, 2008). Moreover, previous research used long working hours as a proxy for heavy work investment (e.g. Burke & Fiksenbaum, 2009; Snir & Harpaz, 2009; Vallerand et al., 2003). Long working hours may be operationalized in three ways: (1) hours exceeding the statutory regular work hours (the case of this study), (2) an excess of hours related to health problems and (3) hours exceeding those which workers prefer to work (Lee, McCann, & Messenger, 2007).

Finally, two major types of heavy work investment can be distinguished following Snir and Harpaz (2009, 2012): (1) situational, which stems from external and uncontrollable factors, such as basic financial needs (food and accommodation), job demands, employer/supervisor demands or organizational culture; and (2) dispositional, which stems from personal (or internal) characteristics. In this study, the heavy work investment of all employees is considered to be dispositional because they are all full-time workers. Hence, we have used long working hours as a proxy for heavy dispositional work investment (Snir & Harpaz, 2009).

In line with previous research on work investment (Snir & Harpaz, 2009, 2012), we will try to understand employee well-being patterns in relation to two kinds of work investors, depending on the hours that are worked: heavy work investors (i.e. longer hours worked) and soft work investors (i.e. fewer working hours). Therefore, on connecting our expected work-related well-being patterns (see Hypothesis 1) with work investment, we expect the following:

Hypothesis 2: Enthusiastic employees (type 2) and tense employees (type 3) will work more hours (i.e. 'heavy work investors') than relaxed employees (type 1) and fatigued employees (type 4) (i.e. 'soft work investors').

In order to investigate the validity of our classification system, another aim of the current study is to investigate the relationships between employee well-being, on the one hand, and job demands, job resources, personal resources and positive and negative psychological outcomes, on the other hand. For this purpose, we used the *Job Demands-Resources (JDR) model* (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) as a theoretical framework. Job demands are those physical, psychological, social or organizational aspects of the job that require physical and/or psychological effort (either cognitive or emotional) and are therefore associated with certain physiological and/or psychological costs. On the basis of previous research (see Schaufeli & Taris, in press), the following job demands were included in the current study: quantitative overload, mental and emotional demands, role ambiguity, role conflict and monotony.

Job resources refer to those physical, social or organizational aspects of the job that may (1) reduce job demands and the associated physiological and psychological costs, (2) be functional for achieving work goals or (3) stimulate personal growth, learning and development. On the basis of previous research (see Schaufeli & Taris, in press), job control, transformational leadership, organizational quality and teamwork were included in the study as the most important job resources.

Finally, personal resources are aspects of self that are generally linked to resilience and refer to the individuals' sense of their ability to control and impact upon their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003). The JDR model also considers personal resources together with job demands and job resources: that is, employees interpret their social and work environment in terms of their levels of self-efficacy (Salanova, Cifre, Martínez, Llorens, & Lorente, 2011). Recent research (Lorente, Salanova, Martínez, & Schaufeli, 2008; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2012) has shown that personal resources such as self-efficacy, mental and emotional competences, organizational-based self-esteem and optimism are positively associated with work engagement and positive emotions and negatively associated with burn-out in different occupational groups. On the basis of past research, the following personal resources were included in the current study: self-efficacy (beliefs about being efficacious in the future) and perceived mental and emotional competences (beliefs about the current mental and emotional competences).

We also include positive (i.e. organizational commitment, intrinsic interest and positive emotions) and negative outcomes (i.e. turnover intention and psychosomatic complaints) to investigate the validity of our typology of employee well-being. We expect to find significant differences among the four profiles of employee well-being regarding job demands, job resources, personal resources, and positive and negative outcomes. Consequently, we expect the following:

Hypothesis 3: Enthusiastic employees (type 2) will show the most favourable scores in terms of job demands, job and personal resources, and positive as well as negative outcomes (Hypothesis 3a), whereas fatigued employees (type 4) will show the most unfavourable scores (Hypothesis 3b). Finally, we expect tense employees (type 3) to show a profile of scores that is more positive than the profile of relaxed employees (type 1) (Hypothesis 3c).

Method

Participants and procedure

The sample consisted of 786 Spanish full-time employees (56% men) from different occupational sectors (32% services, 25% industry, 23% education, 12% commerce and 8% marketing). Ages ranged from 20 to 64 years old [mean = 36, standard deviation (*SD*) = 8.9], and 43% had completed high school. Seventy-one percent of the employees had permanent work contracts, and the average tenure in their current job was 6 years (*SD* = 3.81). Participants were asked to fill out an online questionnaire as part of an occupational health and safety research project for improving the quality of working life. Each employee received a cover letter that included the objective of the study as well the password required to access the questionnaire. After completing the questionnaire, participants received automatic feedback on their responses. Participation was voluntary and confidential.

Measures

In this study, we used the Resources/Experiences/Demands questionnaire (RED; Salanova, Cifre, et al., 2011) (see Table I, which shows all variables, their source and one example of an item); this instrument includes 25 scales referring to well-being (eight scales), job demands (six scales), job resources (four scales), personal resources (two scales; mental and emotional competences) and positive and negative outcomes (five scales). All were original scales or were translated versions of well-known, validated scales. Respondents answered by using a 7-point scale ranging from 0 (*never*) to 6 (*always*). For positive emotions, we used the 7-faces rating scale (Kunin, 1955).

To differentiate between heavy and soft work investors, we considered the real number of working hours (including the regular as well as the extra hours). All respondents were full-time workers, and it is not likely that they were 'forced' to work overtime. Moreover, note that although even common full-time workers sometimes have to invest heavily in their work because of a temporary high workload, as such occasions are exceptional, we consider employees who work long hours to be dispositional heavy work investors.

To assess employee well-being, we created five different *a priori* dimensions using existing scales. Energy ($\alpha = 0.79$) was assessed as a composite of two variables:

vigour (six items; e.g. 'In my work, I feel bursting with energy') and fatigue (four reversed items; e.g. 'I feel exhausted when I finish my work') (González-Romá et al., 2006). Pleasure ($\alpha = 0.80$) was assessed with an affect-based measure by five items referring to pleasure and satisfaction with the task, one's colleagues, organization, technology use and one's work (Kunin, 1955). Challenge ($\alpha = 0.72$) was based on a composite of two items of dedication (e.g. 'My job is stimulating and inspires me' and 'To me, my job is challenging') (Schaufeli et al., 2002) and boredom (two reversed items; e.g. 'My job is boring me' and 'In my job, I learn uninteresting things'). Perceived skills ($\alpha = 0.82$) were assessed as a composite scale consisting of professional efficacy (four items; e.g. 'I think that I'm competent in my work') and inefficacy beliefs (four reversed items; e.g. 'I think I'm inefficient to solve problems in my work') (Schaufeli & Salanova, 2007). Finally, identification ($\alpha = 0.90$) was assessed as a composite scale consisting of dedication (four items; e.g. 'I am proud of the work that I do') and cynicism (five reversed items; e.g. 'I doubt the significance of my work') (Schaufeli et al., 2002).

Data analyses

Firstly, we computed the internal consistencies (Cronbach's alpha), means, *SDs* and correlations. Unless indicated otherwise, all statistical analyses were performed with SPSS 19.0 (SPSS Inc., Chicago IL). Secondly, as the dimensions of employee well-being were composed of self-reported items, we tested for possible bias due to common method variance. To do so, we used one of the most widely utilized techniques, Harman's single factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), which is based on confirmatory factor analyses with AMOS 19.0 (SPSS Inc.). Thirdly, we performed cluster analyses using *k*-means and subsequent discriminant analyses in order to establish the different patterns of employee well-being (Hypothesis 1). Fourthly, multivariate analyses of variance (MANOVAs) were performed using different clusters as independent variables, and hours worked (Hypothesis 2) and job demands, job and personal resources, and positive and negative outcomes (Hypothesis 3) as dependent variables.

Results

Preliminary analyses

Table I displays the means, *SDs*, and internal consistencies (Cronbach's alpha) of the study variables. As expected, all alpha values meet the criterion of 0.70 (Nunnally & Bernstein, 1994), with values ranging from 0.72 to 0.94, and all variables correlate significantly,¹ ranging from $r = 0.10$, $p < 0.01$ to $r = 0.88$,

¹Because of its large size, the correlation matrix (25 × 25) is not displayed. However, the full matrix is available from the first author upon request.

Table I. *M*, *SD*, internal consistencies (Cronbach's α) and an example of an item for each scale ($N=786$)

Variable	<i>M</i>	<i>SD</i>	α	<i>N</i> items	Source	Example of item
Well-being						
Vigour	4.38	1.09	0.86	6	Schaufeli et al., 2002	'In my job, I feel bursting with energy'
Fatigue	2.68	1.32	0.79	4	Schaufeli & Salanova, 2007	'I feel exhausted when I finish my work'
Satisfaction	3.01	1.92	0.80	5	Kunin, 1955	A 'faces scale' for measuring, for instance, satisfaction with the task
Boredom	1.92	1.38	$r=0.35^{***}$	2	Salanova, Cifre, et al., 2011	'My job is boring me'
Professional efficacy	4.84	1.08	0.91	4	Schaufeli & Salanova, 2007	'I think that I'm competent in my work'
Inefficacy beliefs	0.98	1.13	0.83	4	Schaufeli & Salanova, 2007	'I think I'm inefficient to solve problems in my work'
Dedication	3.86	1.42	0.91	6	Schaufeli et al., 2002	'I am proud of the work that I do'
Cynicism	1.66	1.52	0.88	5	Schaufeli et al., 2002	'I doubt the significance of my work'
Job demands						
Work overload	3.35	1.49	0.88	5	Beehr, Walsh, & Taber, 1976	'I have more work that I can do'
Role ambiguity	2.20	1.52	0.85	4	Rizzo, House, & Lirtzman, 1970	'My job requires me to do things which are disorganized'
Role conflict	2.61	1.49	0.88	5	Rizzo et al., 1970	'My job requires me to do things which I don't agree with'
Monotony	3.95	1.67	0.90	3	Salanova, Cifre, 2011	'My job requires me to do monotonous tasks'
Mental overload	4.62	1.25	0.74	3	Van Veldhoven & Meijman, 1994	'My job requires a great deal of attention and concentration from me to do my work'
Emotional overload	3.68	1.22	0.83	8	Van Veldhoven & Meijman, 1994	'My job requires working in a team in an efficient way'
Job resources						
Control	4.35	1.33	0.80	4	Jackson, Wall, Martin, & Davis, 1993	'In my job, I have autonomy to decide when to start, when to finish and in which order tasks are to be done'
Transformational leadership	3.69	1.51	0.94	10	Salanova et al., 2011	'In my job, the person who supervises me directly organizes and distributes responsibilities'
Organizational quality	3.24	1.29	0.72	4	Salanova, Cifre, et al., 2011	'In my organization, the level of work quality is excellent'
Work team	4.77	1.12	0.90	7	Salanova, Cifre, et al., 2011	'My work team has clear work objectives'
Personal resources						
Mental competences	4.80	1.00	0.74	3	Van Veldhoven & Meijman, 1994	'In my job, I am able to work with a lot of information'
Emotional competences	4.27	1.08	0.86	3	Van Veldhoven & Meijman, 1994	'In my job, I must be able to deal with difficult people'
Positive and negative outcomes						
Organizational commitment	3.71	1.38	0.75	3	Cook & Wall, 1980	'I like to tell others what organization I work for'
Intrinsic interest	2.98	1.40	0.74	3	Salanova, Cifre, et al., 2011	'I do my work because I like it, not as an obligation'
Positive emotions	3.37	1.50	0.84		Kunin, 1955	'I feel relaxed'
Turnover Intention	2.21	1.63	0.93	3	Salanova, Cifre, et al., 2011	'I'd feel better in another organization'
Psychosomatic complaints	1.98	1.17	0.90	14	Van Veldhoven & Meijman, 1994	'I have felt pains in my back over the last year'

M: means; *SD*: standard deviations.

*** $p < 0.001$.

$p < 0.001$. The results of Harman's single factor test revealed a poor fit to the data for the single factor model that posits that all 10 dimensions load on a single latent factor, $\chi^2(35) = 875.04$, root mean square error of approximation ($RMSEA$) = 0.17, comparative fit index (CFI) = 0.77, incremental fit index (IFI) = 0.77,

Tucker–Lewis coefficient (TLI) = 0.71, Akaike information criterion (AIC) = 915.04. Furthermore, the single factor model shows a significantly poorer fit, $\Delta\chi^2(10) = 428.01$, $p < 0.001$, compared with the model in which the 10 indices load on the five indices of well-being (i.e. energy, pleasure, challenge, skills and

identification), $\chi^2(25) = 447.03$, $RMSEA = 0.14$, $CFI = 0.89$, $IFI = 0.90$, $TLI = 0.91$, $AIC = 507.03$. Consequently, we may conclude that (1) common method variance is not a deficiency in this dataset and that (2) five indices of well-being can be distinguished.

Cluster analyses

To uncover different patterns of employee well-being, an inductive approach was used (cluster analyses), whereby employees' scores on energy, pleasure, challenge, skills and identification were employed as input for the analyses. We computed a non-hierarchical *k*-means cluster analysis to identify the number of clusters. This type of analysis is used to achieve a cluster solution by way of an iterative process (Gore, 2000; Schaufeli, Bakker, Van der Heijden, & Prins, 2009a). Figure 2 shows the standardized scores of each dimension of well-being for the four patterns. Analogous to Cohen's *d*, an *SD* of 0.2 is considered a small effect, 0.5 a medium effect and 0.8 a large effect (Cohen, 1988).

The four employee well-being clusters are characterized by scores that deviate moderately to strongly ($p < 0.001$) from the respective means, thereby suggesting that the groups differ considerably in terms of the five dimensions of well-being (energy, pleasure, challenge, skills and identification) (Table II).

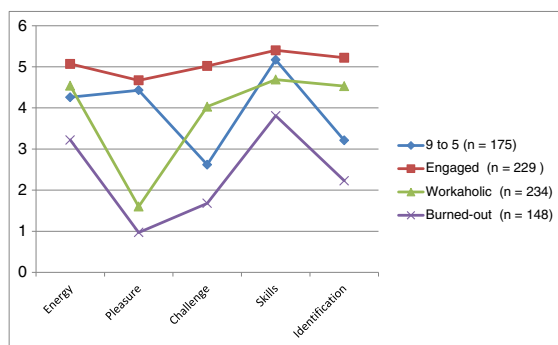


Figure 2. The four profiles of employee well-being ($N = 786$)

Discriminant analyses revealed that 97% of cases were classified appropriately.

The differences obtained between the four groups were tested using a MANOVA with cluster membership as the independent variable. Results ($F(12, 2061.33) = 66.25$, $p < 0.001$, $\eta^2 = 0.26$) reveal highly significant differences between the clusters as regard energy, pleasure, challenge, skills and identification. The eta-squared (η^2) values indicate that 34%, 72%, 62%, 27% and 62% of the variance in energy, pleasure, challenge, skills and identification, respectively, can be attributed to differences among the four clusters (Table II). These clusters were labelled as follows: relaxed (type 1), enthusiastic (type 2), tense (type 3) and fatigued (type 4) (Table II). Cluster 1, 'relaxed employees', includes 175 employees (22%) who score high on skills and pleasure, medium on energy and low on challenge and identification. Cluster 2, 'enthusiastic employees', includes 229 employees (29%) who score high on all five dimensions. Cluster 3, 'tense employees', includes 234 employees (30%) who obtain medium to high scores on energy, challenge, identification and skills, and low scores on pleasure. Finally, Cluster 4, 'fatigued employees', is composed of 148 employees (19%) who score the lowest on all five dimensions. Hence, Hypothesis 1 is supported (Figure 2). Lately, we called these clusters: 9 to 5, engaged, workaholic and burned-out employees.

Differences among clusters

To test Hypothesis 2, an ANOVA was carried out with cluster as factor and hours worked as the dependent variable. In accordance with our expectations, highly significant differences were observed between clusters in terms of hours worked, Wilks' Lambda, $F(3, 699) = 8.37$, $p < 0.001$, $\eta^2 = 0.03$. Hence, Hypothesis 2 was supported.

To test Hypothesis 3, another MANOVA was carried out with cluster as factor and job demands, job resources, personal resources, and positive and negative psychological outcomes as dependent variables. A highly significant multivariate effect was observed: Wilks' lambda, $F(54, 1642) = 21.58$, $p < 0.001$, $\eta^2 = 0.41$. In line with our expectations, significant differences were observed between clusters in terms of job demands, job

Table II. Comparison of the five dimensions of employee well-being across the four clusters ($N = 786$)

Dimensions	Cluster 1 relaxed ($n = 175$)		Cluster 2 enthusiastic ($n = 229$)		Cluster 3 tense ($n = 234$)		Cluster 4 fatigued ($n = 148$)		$F(3, 782)$	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Energy	4.26	0.89	5.07	0.78	4.54	0.74	3.22	1.16	137.38***	0.34
Pleasure	4.43	1.00	4.67	0.97	1.60	1.07	0.97	1.04	661.91***	0.72
Challenge	2.62	1.13	5.02	0.77	4.03	0.95	1.68	1.08	429.55***	0.62
Skills	5.17	0.82	5.40	0.68	4.69	0.92	3.81	1.27	99.26***	0.27
Identification	3.21	1.05	5.22	0.63	4.53	0.79	2.23	1.07	424.54***	0.62

Note. *F*: effect size *F*; η^2 : eta. *** $p < 0.001$.

and personal resources, and positive and negative outcomes. Personal resources explain most of the variance among the clusters (26%), followed by positive outcomes (18%) and job demands (12%) (Table III).

The results of subsequent univariate analyses, η^2 and pairwise comparisons of hours worked, and job and personal characteristics are shown in Table IV. For the pairwise comparisons, we employed Tukey's honestly significant difference follow-up tests, which corrects for experiment-wise error rates. Scores were categorized as high, medium and low as a result of the comparison of the values obtained for the four clusters. Firstly, we found that, compared with the other clusters, enthusiastic employees (type 2) and tense employees (type 3) spend more time working compared with relaxed (type 1) and fatigued employees (type 4). Thus, Hypothesis 2 is supported.

Secondly, and compared with the other clusters, enthusiastic employees show medium levels of job demands and, more particularly, the lowest scores on role ambiguity and role conflict but the highest scores on mental and emotional demands. Regarding resources, they have significantly higher scores on all job and personal resources than all other clusters. Moreover, results show that enthusiastic employees experience significantly higher positive outcomes than all other clusters, and they have the lowest scores on negative outcomes. Thus, Hypothesis 3a is supported. Because of the similarities between this well-being cluster (enthusiastic employees) and work engagement (high levels of energy and identification; González-Romá et al., 2006), we called them 'engaged employees' (see Figure 2). These employees take pleasure in and are challenged by their jobs, where they can use their skills and energy and feel well while they are working. They also identify with their work and with the organization they work for. In sum, engaged employees are characterized by high levels of energy, pleasure and identification, and they feel challenged and have good skills. Despite being heavy work investors, this 'investment' is positive, as follows from their high levels of well-being and favourable job characteristics.

Thirdly, and compared with the rest of the groups, fatigued employees show significantly higher scores on role ambiguity, role conflict and monotony. However, they have the lowest scores on the other job

demands, and also on job and personal resources. In addition, they report the lowest scores on positive outcomes, especially on intrinsic interest, and the highest scores on negative outcomes, particularly on turnover intention. Thus, Hypothesis 3b is supported. This profile resembles 'burned-out' employees (see Figure 2) because employees who show this pattern do not feel good at their job, they do not experience their job as challenging, and they do not identify with it—in fact they feel exhausted and cynical (González-Romá et al., 2006). In addition, they do not feel competent and do not have enough energy to do their work properly. Burned-out employees are characterized by the lowest levels of energy, pleasure, skills, identification and challenge.

Finally, compared with relaxed employees, tense employees experience medium scores on job demands, with low levels of role ambiguity and high levels of mental demands being especially relevant. They also display medium scores on job and personal resources, with high levels of teamwork and job control, and medium levels of positive outcomes being especially important. Particularly relevant are the lower scores on negative outcomes compared with the scores of 'relaxed' workers, who have the highest scores on both indicators: turnover intention and psychosomatic complaints. Thus, Hypothesis 3c is supported.

Both tense employees and relaxed employees could be renamed as 'workaholics' and '9-to-5' employees, respectively (see Figure 2). Workaholics are characterized by working excessively hard and working compulsively (Del Líbano, Llorens, Salanova, & Schaufeli, 2010; Schaufeli, Taris, & Bakker, 2006) and can be seen as a kind of 'negative' heavy work investors in contrast to work-engaged employees. They feel competent and efficacious but do not experience pleasure in their jobs (Ng, Sorensen, & Feldman, 2007). They have fair levels of energy and identify with their jobs, but these positive conditions are not translated into positive feelings. Hence, workaholics are characterized by medium to high levels of energy, challenge, skills and identification, and by low levels of pleasure.

On the other hand, relaxed employees could be called colloquially 9-to-5 employees because they seem content but fall short on drive. This pattern could be characterized by being a kind of 'positive' soft work investors as opposed to burned-out employees. Although 9-to-5 employees do not feel bad in their jobs and they feel competent and efficacious at work, they lack enthusiasm and do not feel their job is challenging. In sum, 9-to-5 employees are characterized by low scores on challenge, medium scores on energy and identification, and high scores on pleasure and skills.

Discussion

This study provides evidence of a parsimonious, theory-based classification of employee well-being, showing four types of employee well-being: 9-to-5 or relaxed, work engaged or enthusiastic, workaholic or tense, and burned-out or fatigued. Moreover, the study

Table III. Multivariate analysis of variance with clusters as independent variables ($N = 786$)

Variable	Wilks' λ	df	F	η^2
Job demands	0.66	21, 2117	15.57***	0.12
Job resources	0.75	24, 1521	14.53***	0.09
Personal resources	0.40	12, 2016	68.58***	0.26
Positive outcomes	0.54	9, 1835	57.56***	0.18
Negative outcomes	0.88	6, 1562	16.7***	0.06

Note. F : effect size F ; η^2 : eta. *** $p < 0.001$.

Table IV. Comparison of hours worked, job demands, job resources, personal resources and outcomes across the four clusters (N = 786)

Variable	Cluster 1 (relaxed)		Cluster 2 (enthusiastic)		Cluster 3 (tense)		Cluster 4 (fatigued)		η^2	F	df	Tukey's HSD
	From 9-to-5		Engaged		Workaholic		Burned out					
	M	SD	M	SD	M	SD	M	SD				
Worked hours	38.67	11.52	41.22	12.55	40.17	11.36	34.73	13.82	0.03	8.37***	3, 699	1 < 2*, 4**; 2 > 4***; 3 > 4***
Work overload	3.58	1.53	3.54	1.56	3.17	1.36	3.05	1.47	0.02	5.78**	3, 764	1 > 3*, 4**; 2 > 3*, 4**
Role ambiguity	2.53	1.67	1.80	1.45	2.06	1.34	2.64	1.49	0.05	13.38***	3, 764	1 > 2***, 3**; 2 < 4**, 3 < 4**
Role conflict	3.10	1.57	2.26	1.48	2.41	1.31	2.87	1.49	0.06	13.93***	3, 764	1 > 2***, 3**; 2 < 4**, 3 < 4**
Monotony	4.37	1.54	3.38	1.75	3.86	1.66	4.49	1.45	0.07	18.85***	3, 764	1 > 2***, 3**; 2 < 3*, 4**; 3 < 4**
Mental demands	4.78	1.24	5.05	0.96	4.49	1.13	3.96	1.51	0.10	26.95***	3, 764	1 > 4***; 2 > 3***, 2 > 4***, 3 > 4***
Emotional demands	4.03	1.26	4.17	1.08	3.23	1.03	3.20	1.20	0.13	39.75***	3, 764	1 > 3, 4***; 2 > 3, 4***
Job control	4.21	1.33	4.94	0.98	4.14	1.16	3.64	1.51	0.12	27.12***	3, 578	1 < 2***, 1 > 4**; 2 > 3, 4***; 3 > 4***
Transformational leadership	3.53	1.52	4.35	1.45	3.92	1.26	2.92	1.36	0.10	23.63***	3, 578	1 < 2***, 1 > 4**; 2 > 3**, 4***; 3 > 4***
Organizational quality	2.95	1.24	3.91	1.17	3.53	1.00	2.46	1.11	0.17	41.16***	3, 578	1 < 2, 3***, 1 > 4**; 2 > 3**, 4***; 3 > 4***
Team-working	4.66	1.08	5.16	0.97	4.82	0.96	4.26	1.20	0.08	16.46***	3, 578	1 < 2***, 1 > 4**; 2 > 3*, 4***, 3 > 4***
Mental competence	5.13	0.73	5.38	0.66	4.57	0.85	3.86	1.15	0.30	111.42***	3, 765	1 < 2*; 1 > 3, 4***; 2 > 3, 4***; 3 > 4***
Organizational competence	4.92	0.59	5.10	0.58	3.59	0.82	3.24	0.93	0.54	300.02***	3, 765	1 < 2*; 1 > 3, 4***; 2 > 3, 4***; 3 > 4***
Organizational commitment	3.37	1.34	4.31	1.28	3.97	1.13	2.76	1.30	0.17	52.00***	3, 756	1 < 2, 3***; 1 > 4***; 2 > 3*, 4***; 3 > 4***
Intrinsic interest	2.32	1.29	3.98	0.96	3.32	0.99	1.63	1.06	0.40	172.31***	3, 756	1 < 2, 3***; 1 > 4***; 2 > 3, 4***; 3 > 4***
Positive emotions	2.97	1.51	4.07	1.34	3.67	1.23	2.28	1.36	0.19	59.99***	3, 756	1 < 2, 3***; 1 > 4***; 2 > 3*, 4***; 3 > 4***
Turnover Intention	2.77	1.68	1.78	1.49	1.75	1.46	2.91	1.61	0.11	29.90***	3, 764	1 > 2, 3***; 2 < 4***; 3 < 4***
Psychosomatic complaints	2.30	1.22	1.78	1.19	1.76	1.01	2.28	1.17	0.05	12.70**	3, 764	1 > 2, 3***; 2 < 4***; 3 < 4***

Note. HSD: honestly significant difference.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

contributes to the existing literature about work investment because meaningful relations were found between various types of employee well-being, and heavy and soft work investors.

Theoretical contributions

In our study, we show that the 'pleasure' dimension plays a pivotal role in the taxonomy of work-related well-being (i.e. 9-to-5, workaholics, engaged and burned-out employees). This dimension explained more variance than the other four dimensions (energy, challenge, skills and identification). Similar results were also found in previous studies that focused on specific dimensions of well-being (Russell & Carroll, 1999).

We were also interested in differentiating between types of employee well-being in terms of time spent working (hours worked). Our findings show that those employees with higher scores on the energy dimension (work-engaged and workaholic employees) reported more hours worked and could thus be categorized as heavy work investors (Snir & Harpaz, 2012). On the basis of the cluster descriptions, engaged employees and workaholics are a kind of positive and negative heavy work investors, respectively. In addition, employees with lower levels of energy (9-to-5 and burned-out employees) reported fewer hours worked, and hence they were identified as soft work investors. According to the cluster descriptions, the 9-to-5 and burned-out employees are a kind of positive and negative soft work investors, respectively.

This finding supports and extends the existing literature about work investment, which deals mainly with two types of dispositional heavy work investors: workaholics and work-devoted persons (Snir & Harpaz, 2009, 2012). This last type of heavy worker is similar to our work-engaged employees. It is interesting to note that we could also differentiate between two types of soft work investors: burned-out and 9-to-5 workers. Both types are employees who do not invest too much time in their work and, additionally, feel less energetic and challenged. Tellingly, they may either feel good (more pleasure, identification and skills: 9-to-5 employees) or feel bad (less pleasure, identification and skills: burned-out employees).

In the current study, we also examined whether job and personal characteristics, and positive and negative outcomes would differ across the four types of employee well-being. As predicted, compared with the other (three) groups, engaged (enthusiastic) employees experience the lowest job demands (role ambiguity), the highest job resources (job control) and personal resources (mental competences), and the highest positive outcomes (organizational commitment). This agrees with a previous study (Schaufeli, Taris, & Van Rhenen, 2008), in which managers high in work engagement were almost exclusively characterized by positive features: they enjoyed good mental health, their social functioning was

smooth and they worked in resourceful jobs with positive outcomes.

Our findings also showed that burned-out (fatigued) employees exhibited the highest job demands (routine) and the lowest job resources (organizational quality) and personal resources (emotional competence). Moreover, they experienced the lowest positive (intrinsic interest) and highest negative (turnover intention) outcomes, and hence it was the group with the least favourable perception of the work environment. According to the JDR model, when employees have low personal resources, they perceive more job demands and less personal resources to cope with their work environment (following a kind of erosion process); and, consequently, if the situation requires a sustained effort, they may exhaust their resources, deplete their energy and might develop health problems (Caplan et al., 1975) and eventually burnout.

As compared with 9-to-5 (relaxed) employees, workaholics (tense) showed fewer job demands (emotional demands), similar job resources (job control) and more positive (positive emotions) and fewer negative (turnover intention) outcomes. If we compare workaholicism with other addictions such as alcoholism, one of its main characteristics is denial of the problem. As Porter (1996) asserted, workaholics are typically unable to recognize the compulsive nature of their behaviour pattern. Like alcoholics, they believe the person complaining is the one with the problem. As a consequence of this denial, typically workaholics give a better impression of themselves. Interestingly, workaholics scored high on some positive characteristics such as job control and turnover intention, which are common in workaholics because of their need to work at any time and in any place (Harpaz & Snir, 2003).

Conversely, 9-to-5 employees exaggerate the negative aspects of their job. Compared with workaholics, they experience more job demands (workload), similar job resources (organizational quality), more personal resources (mental competence) and fewer positive (intrinsic interest) and more negative (psychosomatic complaints) outcomes. Although 9-to-5 employees have not been studied previously, the imbalance between demands and competences perceived by this type of employees may negatively affect their work-related well-being and work motivation. According to the *personality systems interaction* theory (Kuhl, 2000), when employees do not achieve their needs or implicit motives, they are more likely to experience a reduction in their well-being. As 9-to-5 employees are under-challenged (they have more resources than demands) and they also have high levels of skills, they can perceive a failure to seek opportunities to meet standards of excellence and consequently have a tendency not to feel well (Brunstein, Schultheiss, & Grässmann, 1998) and to exhibit psychosomatic complaints (Sapolsky, 1992). This is a possible explanation for their higher levels of this kind of complaints compared with the other types of well-being.

Practical contributions

On the basis of our study results, some suggestions can be made for practitioners. First of all, the current study contributes to the ongoing discussion (Avey, Luthans, Smith, & Palmer, 2010) about the conceptualization and measurement of employee well-being by suggesting a new combination of affective and cognitive dimensions with which to interpret differences in patterns of employee well-being. It is shown that by using energy, pleasure, challenge, skills and identification as dimensions, employees can be classified into four different types according to their psychological well-being. Three of these types are well known in the literature (work engagement, workaholism and burnout), whereas the remaining type, 9-to-5 employees, has not received so much attention to date and would therefore be an interesting area for future exploration. In addition, as in the Russell and Carroll (1999) study, our results show that the pleasure dimension was also the most relevant dimension of employee well-being, which supports the notion that differences in pleasure are more likely to be reflected in well-being than variations in energy, challenge, skills or identification. Moreover, our study adds value to the existing literature about work investment because we have shown its relationship with different types of work-related well-being.

Using the proposed taxonomy of well-being, practitioners may be able to assess four prominent types of employee well-being without the need to use a large number of questionnaires. Assessing the 'core' affective and cognitive dimensions related to employee well-being (energy, pleasure, challenge, skills and identification) and identifying the number of hours worked would suffice to identify four types of employee well-being (engaged, burned out, workaholic and 9-to-5). Next, on the basis of additional assessments of particular job demands, and job and personal resources, practitioners might propose intervention strategies to prevent burnout and workaholism, as well as to enhance work engagement.

Limitations and future research

One of the possible limitations of this study could be that it was contaminated by common method variance and by the wish to answer consistently (Conway, 2002).

However, our analyses suggest that these limitations most likely had no effect. Another limitation was the use of a convenience sample. Although being heterogeneous and stemming from different occupations, we used a convenience sample. Future studies should include more occupational groups to further validate the four patterns of psychological well-being in randomly selected samples.

Our study also has some particular strengths: (1) discriminant analyses showed that 97% of the employees were correctly classified into the four clusters; (2) the main dimensions of affective and cognitive well-being were considered, and thus the feasibility of the clusters was considerably high; (3) most of our results were similar to the results of other studies (Schaufeli, Bakker, Van der Heijden, & Prins, 2009b; Schaufeli et al., 2008), which is an indicator of the robustness of our conclusions; (4) different work investors and their relationship with worker-related well-being were tested; and (5) pleasure was the most relevant dimension for discriminating between the different types of employee well-being, which is also in line with other studies conducted on well-being at work (e.g. Russell & Carroll, 1999). Regarding this last point, future studies could investigate the cause of the relevance of pleasure by using longitudinal studies. Moreover, it could be interesting for practitioners to know specific and empirical-based strategies to promote pleasure at work.

Final note

The major contribution of this study is that we ended up with four types of employee well-being that correspond to three well-known states (work engagement, workaholism and burnout) and one type of employee that has not been studied in previous research (9-to-5 employees). The study of work investment is also an added value of the present research: two different types of work investors emerged, heavy and soft work investors with positive and negative valences, respectively.

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REFERENCES

- Anderson, P., Jané-Llopis, E., & Cooper, C. (2011). The imperative of well-being. *Stress and Health, 27*, 353–355.
- Avey, J. B., Luthans, F. L., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology, 15*, 17–28.
- Beehr, T. A., Walsh, J. T., & Taber, T. D. (1976). Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology, 61*, 41–47.
- Brunstein, J. C., Schultheiss, O. C., & Grässmann, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology, 75*, 494–508.
- Burke, R. J., & Fiksenbaum, L. (2009). Work motivations, satisfactions, and health among managers. Passion versus addiction. *Cross-Cultural Research, 43*, 349–365.
- Busseri, M. A., Sadava, S. W., & Decourville, N. (2007). A hybrid model for research on subjective well-being: Examining common- and component-specific sources of variance in life satisfaction, positive affect, and negative affect. *Social Indicators Research, 83*, 413–445.
- Caplan, R. D., Cobb, S., French, J. R. P., Jr., Van Harrison, R., & Pinneau, S. R., Jr. (1975). Job demands and worker health: Main effects and occupational differences. Washington, DC: U.S. Department of Health, Education and Welfare.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Hillsdale, NJ: Erlbaum.
- Conway, J. M. (2002). Method variance and method bias in industrial and organizational psychology. In S. G. Rogelberg (Ed.), *Handbook of research methods in organizational and industrial psychology* (pp. 344–365). Malden, NJ: Blackwell Publishers.

- Cook, J., & Wall, T. (1980). New work attitude measures of trust, organisational commitment and personal need non-fulfillment. *Journal of Occupational Psychology*, 53, 39–52.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper and Row.
- Del Libano, M., Llorens, S., Salanova, M., & Schaufeli, W. (2010). Validity of a brief workaholism scale. *Psicothema*, 22, 143–150.
- 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.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55, 34–43.
- González-Romá, V., Schaufeli, W. B., Bakker, A., & Lloret, S. (2006). Burnout and work engagement: Independent or opposite poles? *Journal of Vocational Behavior*, 68, 165–174.
- Gore, P. A., Jr. (2000). Cluster analysis. In H. E. A. Tinsley, & S. D. Brown (Eds.), *Handbook of applied multivariate statistics and mathematical modeling* (pp. 297–321). San Diego, CA: Academic Press.
- Harpaz, I., & Snir, R. (2003). Workaholism: Its definition and nature. *Human Relations*, 56, 291–319.
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resources gain and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84, 632–643.
- Jackson, P. R., Wall, T. D., Martin, R., & Davis, K. (1993). New measures of job control, cognitive demand and production responsibility. *Journal of Applied Psychology*, 78, 753–762.
- Kuhl, J. (2000). A functional-design approach to motivation and volition: The dynamics of personality systems interactions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Self-regulation: Directions and challenges for future research* (pp. 111–169). New York: Academic Press.
- Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology*, 8, 65–67.
- Lee, S., McCann, D., & Messenger, J. C. (2007). Working time around the world: Trends in working hours, laws, and policies in a global comparative perspective. London: Routledge.
- Llorens, S., Salanova, M., & Rodríguez, A. (2013). How is flow experienced and by whom? Testing flow among occupations. *Stress and Health*, 29, 125–137.
- 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.
- Lorente, L., Salanova, M., Martínez, I., & Schaufeli, W. B. (2008). Extension of the job demands-resources model in the prediction of burnout and engagement among teachers over time. *Psicothema*, 20, 354–360.
- Loukidou, L., Loan-Clarke, J., & Daniels, K. (2009). Boredom in the workplace: More than monotonous tasks. *International Journal of Management Reviews*, 11, 381–405.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Ng, T. W. H., Sorensen, K. L., & Feldman, D. C. (2007). Dimensions, antecedents, and consequences of workaholism: A conceptual integration and extension. *Journal of Organizational Behavior*, 28, 111–136.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Plutchik, R., & Conte, H. (1997). *Circumplex models of personality and emotions*. Washington, DC: American Psychological Association.
- 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.
- Porter, G. (1996). Organizational impact of workaholism. Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1, 70–84.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15, 150–163.
- Rodríguez-Sánchez, A. M., Schaufeli, W. B., Salanova, M., Sonnenschein, M., & Cifre, E. (2011). Enjoying and absorption: An electronic diary study on daily flow patterns. *Work and Stress*, 25, 75–92.
- Russell, J. A., & Carroll, J. M. (1999). On the bipolarity of positive and negative affect. *Psychological Bulletin*, 125, 3–30.
- Salanova, M., Cifre, E., Martínez, I. M., Llorens, S., & Lorente, L. (2011). Psychosocial risks and positive factors among construction workers. In R. J. Burke, S. Clarke, & C. Cooper (Eds.), *Occupational health and safety: Psychological and behavioral aspects of risk* (pp. 295–319). UK: Gower.
- Salanova, M., Llorens, S., García, M., Bürriel, R., Bresó, E., & Schaufeli, W. B. (2005). Towards a four dimensional model of burnout: A multigroup factor-analytic study including depersonalization and cynicism. *Educational and Psychological Measurement*, 65, 901–913.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). Yes, I can, I feel good & I just do it! On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology: An International Review*, 60, 255–285.
- Sapolsky, M. (1992). *Stress, the aging brain and the mechanisms of neuron death*. Cambridge, MA: MIT Press.
- Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and engagement, and their relationships with efficacy beliefs. *Anxiety, Stress and Coping*, 20, 177–196.
- Schaufeli, W. B., & Taris, T. W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work and Stress*, 19, 356–362.
- Schaufeli, W. B., & Taris, T. W. (in press). A critical review of the job demands-resources model: Implications for improving work and health. In G. Bauer, & O. Hämmig (Eds.), *Bridging occupational, organizational and public health*. Amsterdam: Springer.
- Schaufeli, W. B., Bakker, A. B., Van der Heijden, F., & Prins, J. T. (2009a). Workaholism among medical residents: It is the combination of working excessively and compulsively that counts. *International Journal of Stress Management*, 16, 249–272.
- Schaufeli, W. B., Bakker, A. B., Van der Heijden, F., & Prins, J. T. (2009b). Workaholism, burnout and well-being among junior doctors: The mediating role of role conflict. *Work and Stress*, 23, 155–172.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. (2002). The measurement of burnout and engagement: A confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.
- Schaufeli, W. B., Taris, T. W., & Bakker, A. (2006). Dr. Jekyll and Mr. Hyde: On the differences between work engagement and workaholism. In R. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193–217). Northampton, MA: Edward Elgar.
- Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout and engagement: Three of a kind or three different kinds of employee well-being. *Applied Psychology: An International Review*, 57, 173–203.
- Snir, R., & Harpaz, I. (2009). Cross-cultural differences concerning heavy work investment. *Cross-Cultural Research*, 43, 309–319.
- Snir, R., & Harpaz, I. (2012). Beyond workaholism: Towards a general model of heavy work investment. *Human Resource Management Review*, 22, 232–243.
- Snir, R., & Zohar, D. (2008). Workaholism as discretionary time investment at work: An experience-sampling study. *Applied Psychology: An International Review*, 57, 109–127.
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C. F., & Leonard, M. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767.
- Van Veldhoven, M., & Meijman, T. F. (1994). Measuring psychosocial workload by means of a questionnaire: Questionnaire on the experience and evaluation of work VBBA. Amsterdam, The Netherlands: NIA.
- Warr, P. (1990). The measure of well-being and other aspects of mental health. *Journal of Personality and Social Psychology*, 44, 644–651.
- Warr, P. (2007). *Work, happiness and unhappiness*. New York: Routledge.
- Warr, P., & Clapperton, G. (2010). *The joy of work? Jobs, happiness, and you*. New York: Routledge.
- Watson, D. (2000). *Mood and temperament*. New York: Guilford Press.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98, 219–235.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2012). A diary study on the happy worker: How job resources generate positive emotions and personal resources. *European Journal of Work & Organizational Psychology*, 21, 489–517.