

## WORKAHOLISM AND PSYCHOLOGICAL CAPITAL: REPERCUSSIONS ON WORKPLACE SPIRITUALITY

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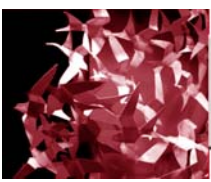
### ABSTRACT

This study analyzes the relationship between psychological capital (i.e., understood as the set of positive personality features used in the professional scope) and workaholism and their repercussions on workplace spirituality (i.e., a team's sense of community, alignment with the organization's values, sense of contribution to community, enjoyment of work and opportunities for inner life). The results show a positive correlation between Psychological Capital and Workaholism as well as a positive repercussion of both on Workplace Spirituality.

**Key-words:** workaholism, workplace spirituality, psychological capital.

In 1971 Oates coined the term "workaholic" attracting the attention of practitioner circles and of popular press for workaholism (Andreassen, Hetland, & Pallesen, 2010; Carlotto, 2011; Del Líbano, Llorens, Salanova & Schaufeli, 2010; Douglas & Morris, 2006; McMillan, Brady, O'Driscoll & Marsh, 2002). Since then, the term workaholism has often been used to describe hardworking employees and people who work long hours (Douglas & Morris, 2006). Throughout the 1980s some authors defended workaholism as a positive phenomenon from the organizational perspective (Korn, Pratt, & Lambrou, 1987; Machlowitz, 1980; Sprankle & Ebel, 1987 cit. in Burke, Matthiesen & Pallesen, 2006, p. 1224-1225).

Over the past four decades there has been no consensus regarding the measurement and conceptualization of workaholism, and little theory development and empirical knowledge has been amassed (Andreassen et al., 2010; Brady et al. 2002; Del Líbano et al. 2010; Douglas & Morris,



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2006). All these factors may have favored the emergence of a social image of workaholism as an added value to the organization and of a workaholic as dedicated and struggled employee. These considerations represent a compelling issue to direct research to investigate on the phenomenon.

Workplace spirituality gained ground in academic research over a decade ago. In 1999 it was the subject of an article published in the *Journal of Organizational Change Management*. Since then, it has gained respectable academic focus, and the debate about what exactly spirituality means also started growing (e.g. Ashmos & Duchon, 2000; Duchon & Plowman, 2005; Krishnakumar & Neck, 2002; Poole, 2009).

Rego, Souto, and Cunha (2007) have linked positive organizational behavior with workplace spirituality, stating that there are many publications both on positive organizational behavior and workplace spirituality, but only a few studies linking the two. The authors explain this with the relative youth of both themes in the organizational literature.

The actual view of psychological capital in the organizational context is relatively new (Luthans, Avey, & Patera, 2008). Positive Organizational Behavior (POB) is rooted on positive psychology. Positive psychology does not completely ignore the organizational sphere, although it is mostly focused on clinical psychology (Machado, 2008).

As Luthans et al. (2008) points out "although the importance of positivity has been given attention through the years, only recently has it been proposed as a new (or at least renewed) lens to focus study on organizational behavior" (p. 209). This study also intends to contribute scientifically by (re)contextualizing POB in an organizational scope and analyzing the role of workaholism in relation with workplace spirituality and psychological capital.

## 2. LITERATURE REVIEW

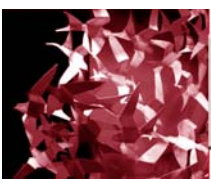
### 2.1 Workaholism

Workaholism can be defined by its compulsive and addictive nature (Andreassen et al. 2010; McMillan, Brady, O'Driscoll, & Marsh, 2002), considered to have a very negative impact on the victims themselves (Ersoy-Kart, 2005), also bringing inconvenience and damage to the workplace environment and coworkers (Burke & Koksall, 2002). Despite that, workaholism is still very often rewarded on a professional level (Machlowitz, 1978, cit. in McMillan et. al, 2002, p. 357) and "people teasingly refer to themselves as 'workaholic' in social gatherings as something of which to be proud" (Robinson, 1996, p.447).

The first operational and academic definition of workaholism, i.e., as a set of attitudes, was provided by Spence and Robbins (1992). These authors understood a workaholic as someone very involved with work, but with little pleasure in working. These authors classify workaholism on three components: work involvement, drive and enjoyment of work. Work involvement is related to the efficient use of time at work or outside work, i.e., also refers to the boundaries between work and personal life. Drive deals with the internal motivation of individuals to work as well as how often they think about work. Enjoyment of work refers to the pleasure of work, the satisfaction that individuals derive from the work performed (Andreassen et al. 2010).

Accordingly to Spence and Robbins (1992), workaholics feel compelled to work by internal pressures. In this study, the authors presented two classifications of workaholics: the work addict and the enthusiastic workaholic. Work addicts are defined as having high work involvement and drive but low work enjoyment, while enthusiastic workaholics exhibit high work involvement, drive and work enjoyment. Enthusiastic workaholics work excessive because their enjoyment comes from the work itself from which they derive immense fulfillment (Fry, Matherly, & Vitucci, 2006).

Related literature presents different definitions and classifications of workaholism. These definitions can be distinguished through the following aspects: addiction (Oates, 1971, Robinson, 1996;



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Robinson, 2000); attitudinally (Machlowitz, 1980; Spence & Robbins, 1992); behaviorally (Scott, Moore, & Miceli, 1997) and can also be recognized by different typologies associated with causes and outcomes (Douglas & Morris, 2006).

### 2.2 Workplace Spirituality

Workplace spirituality is related to the search for connection with coworkers and other people involved at work and to the alignment of values and fundamental beliefs of the organization (Mitroff & Denton, 1999 cit. in Milliman et al. 2003, p. 430).

Ashmos and Duchon (2000) emphasized that workplace spirituality is not related with religion, the acceptance of specific beliefs or conversion. It is about the employee's understanding of oneself as a spiritual being who needs nutrition for the soul from work, "experiencing a sense of purpose and meaning in the work beyond of meaning found" (p.135).

Rego et al. (2007) defined workplace spirituality as a thread of organizational behavior and of positive psychology. Organizations with well-developed spirituality have employees more committed in further efforts in order to serve the company and to achieve self-development.

Several studies have pointed out that organizations that encourage workplace spirituality achieve higher revenues, increased productivity and employee commitment, reducing absenteeism and depression (Krishnakumar & Neck, 2002; Poole, 2009; Rego & Cunha, 2008; Rego, Souto, et al. 2007).

### 2.3 Psychological Capital

The study of psychological capital comes from positive organizational behavior which has its origin from positive psychology. The application of positive psychology in the organizational context began with Fred Luthans (2000) and led to the emergence of two fundamental movements on the theme: Positive Organizational Scholarship and Positive Organizational Behavior (Luthans, 2002; Machado, 2008; Palma, Cunha, & Lopes, 2007).

Luthans, Youssef, et al. (2007) claimed that psychological capital can be understood as the set of positive personality characteristics, employed in the workplace. Several studies have demonstrated the positive impact of these four points to organizational settings (e.g. Carifio & Rhodes, 2002; McCarter, Hargrove & Wad, 2009; Chen & Bliese, 2002; Luthans et al. 2008; Scott, Radosevich, & Clesca, 2008; Stajkovic & Luthans, 1998; Toor & Ofori, 2010). However, we did not find studies linking psychological capital with workaholism and its impact on workplace spirituality.

### Hypothesis

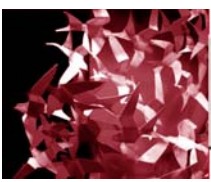
1. There is a negative correlation between psychological capital and workaholism;
2. Psychological capital has a positive impact on workplace spirituality;
3. Workaholism has a negative impact on workplace spirituality.

### Methodology

This research has an empirical, non-experimental, cross-sectional and research design. The sample is comprised of a heterogeneous group of 301 Portuguese employees.

The demographic profile included 132 males (43.7%) and 169 females (56%) of ages between 18 and 67 years ( $M= 40.11$ ;  $SD=10.78$ ). Concerning education level we found that there is no large difference of sample split between the three educational levels, 29.9% ( $n=90$ ) have basic education, 34.6% ( $n=104$ ) have secondary education and 35.5% ( $n=107$ ) have higher education.

The analysis of the relationship between the performance of leadership roles and educational level of the participants showed the same rates for secondary education and higher education (10.6%,  $N = 32$ ) and a difference of 1.3% for primary education (9.3%,  $N = 28$ ).



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### *Measures*

The variables were assessed using three instruments: Workplace Spirituality (Rego, Cunha et al. 2007), Psychological Capital (Luthans, Youssef, et al. 2007) and Workaholism Battery (Spence and Robbins, 1992).

**Workplace Spirituality.** We have adopted a five-item scale from Rego & Cunha (2007). It was subjected to internal consistency assessed by Cronbach Alpha coefficient (Cronbach, 1951). Values equal to 0.70 or greater were considered satisfactory (Nunnally, 1994). We calculated the internal consistency of the whole questionnaire ( $\alpha = 0.933$ ) as well as the internal consistency of each dimensions, according to the model designed by Rego, Souto et al. (2007).

Results showed that both the scale as a whole and the proposed dimensions have good internal consistency.

*Team's sense of community* mainly provides information related to the sense of community and common purpose, team spirit and mutual care among members ( $\alpha = 0.926$ ).

*Alignment between organizational and individual values* is relates to the compatibility of the individual's values and inner life with the organization's values, mission and purposes ( $\alpha = 0.885$ ).

*Sense of contribution to the community* provides information about the relationship between work and personal values ( $\alpha = 0.810$ ).

*Sense of enjoyment at work* is related to the sense of pleasure and enjoyment at work ( $\alpha = 0.783$ ).

*Opportunities for the inner life* evaluates how the organization respects the individual's spiritual values and the spirituality of the workers ( $\alpha = 0.751$ ).

We also performed a Structural Equation Models (SEM) with AMOS 17.0. Considering the studies of Bentler (1990), Browne & Cudeck, (1993), Byrne (2001), Kline (1998) and Stieger (1990), the model appears to be a good fit to the data (CFI = 0.938; NIF = 0.908; RMSEA = 0.077).

**Workaholism Battery.** The instrument proposed by Spence and Robbins (1992) is the scale most widely used in the investigation of workaholism. The version adopted was based on a standardized translation-back-translation procedure of the original by Andreassen, et al. (2010) and was subjected to internal consistency (Cronbach, 1951). The whole questionnaire result was  $\alpha = 0.798$ .

*Work Involvement* provides information about the use of time and energy in or out of work ( $\alpha = 0.540$ ).

*Drive* allows evaluating the internal motivation of people to work, level of drive to work ( $\alpha = 0.672$ ).

*Enjoyment of Work* measure the level of pleasure from work obtained through responses ( $\alpha = 0.827$ ).

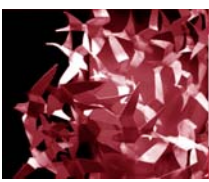
Considering that the reliability of the instrument as a whole has a good internal consistency, we accept that the model has a moderated fit once one of the three dimensions, namely *Enjoyment of Work*, has a very good internal consistency (Nunnally, 1994). However, the other two dimensions, namely *Drive* and *Work Involvement* had an alpha coefficient below 0.70 suggested by Nunnally (1994), but above 0.50 and considered accepted by Kehoe (1995), so we decided to continue using the instrument.

Furthermore, Huang, Hu, and Wu (2010) showed that only Andreassen et al. (2007) validated the three dimensions of WorBat with a Cronbach's alpha greater than 0.70. The authors also claim that several items of Work Involvement tend to have a Cronbach's alpha below 0.70 (e.g. Burke, 1999; Burke, Richardsen, & Martinussen, 2002; Ersoy-Kart, 2005; Kanai et al. 1996; Russo & Waters, 2006; Spence & Robbins, 1992, cit. in Huang, Hu, & Wu, 2010, p.165).

Regarding the structural equation model, considering that RMSEA is 0.08 we accept the structural model as significant despite its low adjustment, expressed by low values of CFI (0.695) and NIF (0.614).

**Psychological Capital.** We have adopted the PsyCap Questionnaire (PCQ), a four-item scale from Luthans, Youssef, and Avolio (2007). This instrument is widely used in positive psychology research and also in organization studies (e.g. Luthans, Avolio, Walumbwa, & Li, 2005; Peterson &





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Luthans, 2003; & Youssef Luthans, 2007; Luthans et al. 2008).

The internal consistency was assessed by Cronbach Alpha coefficient showing  $\alpha = 0.919$  for the whole questionnaire. The four items present the following results:

*Self-efficacy* is the confidence that an individual has in his ability to direct their cognitive resources, motivation and action to perform a given intervention in a specific context ( $\alpha = 0.891$ ).

*Hope* is based on the concepts of agency, pathways and goals ( $\alpha = 0.824$ ).

*Resilience* is the people's ability to rebound and succeed from adversity or failure ( $\alpha = 0.773$ ).

*Optimism* is the characteristic of those who perceive positive events as internal, stable and global, and negative events as external, unstable and specific ( $\alpha = 0.690$ ).

The results for SEM analysis to PsyCap shows a good adjustment of the model (CFI = 0.876; NIF = 0.819; and RMSEA = 0.075).

As we have shown, three of the four dimensions have good internal consistency. Considering the reliability of the instrument and its extensive application, we chose to continue using it.

*Data Analysis Technique*

The statistical programs SPSS 20.0 (Statistical Package for the Social Sciences) and AMOS 17.0 (Analysis of Moment Structures) were used in tabulating and analyzing the data.

The SEM was the main technique used for data analysis. SEM is a multivariate technique which examines multiple relationships between sets of variables simultaneously and allows the use of different relationships for each set of the dependent variables. (Kline, 2011).

**5. RESULTS**

*5.1. The structural model*

To ascertain the correlations between the three instruments used in this study (PsyCap, WorkBat and Workplace Spirituality Questionnaire - WSQ), we calculated the Pearson's intercorrelations (see Tables 1 and 2).

*Correlation between Workplace Spirituality and PsyCap*

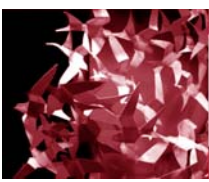
*Table 1 – Pearson Correlation coefficients between the questionnaires: PsyCap and Workplace Spirituality*

In Table 1 we can observe that there is a significant positive correlation between workplace spirituality and psychological capital ( $r = 0.504$ ), as well as strong and positive correlations between most of the factors. Only D5 (WSQ) and D3 (PsyCap) did not present a statistically significant correlation ( $r = 0.112$ ). This suggests that respect for spiritual values have little correlation with resilience.

*Table 1 – Pearson Correlation coefficients between the questionnaires: PsyCap and Workplace Spirituality*

Dimensions	PsyCap	D1: Self-efficacy	D2: Hope	D3: Resilience	D4: Optimism
Workplace Spirituality	0.504**	0.495**	0.549**	0.275**	0.410**
D1: Team's sense of community	0.366**	0.373**	0.368**	0.160**	0.301**
D2: Alignment between organizational and individual values	0.397**	0.418**	0.476**	0.295**	0.301**
D3: Sense of contribution to the community	0.558**	0.490**	0.608**	0.252**	0.453**
D4: Sense of enjoyment at work	0.509**	0.464**	0.561**	0.257**	0.440**
D5: Opportunities for the inner life	0.200**	0.238**	0.246**	0.112	0.173**

\* p < 0.05      \*\* p < 0.01



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### Correlation between Workplace Spirituality and WorkBat

As can be seen in Table 2, workaholism also has a significant positive correlation with workplace spirituality ( $r = 0.397$ ) meaning that the increase or decrease of a variable is directly reflected in the other. Regarding the correlation between dimensions, the factor of WorkBat which showed smaller correlations with WSQ as a whole is D2 - Drive.

We can observe that D2 and D3 are negatively correlated ( $r = -0.025$ ). It could suggest that the level of drive and internal motivation to work are inversely proportional to the respect that the organization spends to spiritual values of workers. However, this negative correlation is not statistically significant and therefore we will not consider this data as valid for the interpretation of results.

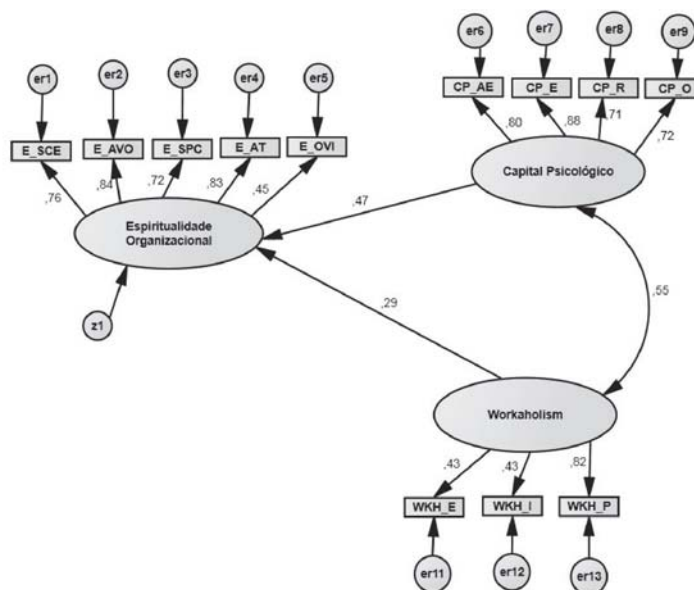
Table 2 – Pearson Correlation coefficients between the questionnaires: WorkBat and Workplace Spirituality

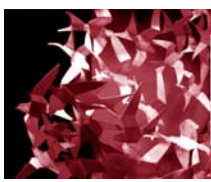
Dimensions	Workaholism	D1: Work Involvement	D2: Drive	D3: Enjoyment of work
Workplace Spirituality	0.397**	0.160**	0.153**	0.507**
D1: Team's sense of community	0.288**	0.123*	0.101	0.380**
D2: Alignment between organizational and individual values	0.384**	0.183**	0.203**	0.412**
D3: Sense of contribution to the community	0.409**	0.167**	0.156**	0.502**
D4: Sense of enjoyment at work	0.425**	0.134*	0.117*	0.598**
D5: Opportunities for the inner life	0.117**	0.038**	-0.025	0.247**

\*  $p < 0.05$       \*\*  $p < 0.01$

Finally, we performed an SEM to test the hypothesis. The results show a good adjustment of the hypothetical model (CMIN/DF value of 4.796; CFI = 0.878; NIF = 0.853; and RMSEA = 0.112), agreeing with what is recommended in the literature (Bentler, 1990; Byrne, 200; Browne & Cudeck, 1993; Kline, 1998).

Figure 1 - Intercorrelation between Workaholism, Workplace Spirituality and Psychological Capital: Estimated structural model





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As shown in Figure 1, all the dimensions of Workplace Spirituality are positively correlated with the factors and those with higher values are “alignment between organizational and individual values” ( $\beta = 0.84$ ) and “sense of enjoyment at work” ( $\beta = 0.83$ ). Regarding psychological capital it can be observed in Figure 1 that there is a relative balance between the scores of each dimension, the two extremes of which being hope ( $\beta = 0.88$ ) and resilience ( $\beta = 0.71$ ). Finally, the SEM showed a higher workaholism score for “enjoyment of work” ( $\beta = 0.82$ ).

Regarding the correlations between variables, the structural model showed a correlation value of  $\beta = 0.55$  for psychological capital and workaholism representing a positive correlation. Both psychological capital ( $\beta = 0.47$ ) and workaholism ( $\beta = 0.29$ ) have a positive influence on workplace spirituality.

The correlation between workplace spirituality and psychological capital is stronger than the correlation between workplace spirituality and workaholism. In Table 03 the most important values obtained by SEM are highlighted.

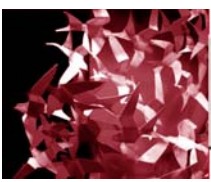
*Table 3 - Standard errors (SE), non-standardized regression coefficients (b), standardized ( $\beta$ ) and critical ratios (CR): proposed structural model*

*Table 3 - Standard errors (SE), non-standardized regression coefficients (b), standardized ( $\beta$ ) and critical ratios (CR): proposed structural model*

Latent constructs	Variables	SE	b	$\beta$	C.R.
Workplace Spirituality	Psychological Capital	0.098	0.596	0.475	60.053***
Workplace Spirituality	Workaholism	0.160	0.514	0.293	3.213***
Work Involvement	Workaholism	0.080	0.432	0.431	5.419***
Sense of contribution to the community	Workplace Spirituality	0.074	0.910	0.716	12.225***
	Psychological Capital - Hope	-	1.000	0.884	-
	Psychological Capital _ Optimism	0.054	0.759	0.724	13.979***
Psychological Capital	Psychological Capital _ Self-efficacy	0.061	0.990	0.803	16.144***
	Psychological Capital _ Resilience	0.055	0.748	0.711	13.684***
	Workplace Spirituality _ Opportunities for the inner life	0.094	0.691	0.446	7.375***
	Workplace Spirituality _ Sense of enjoyment at work	0.071	1.018	0.826	14.260***
Workaholism	Workplace Spirituality _ Alignment between organizational and individual values	0.072	1.039	0.841	14.481***
	Workplace Spirituality _ Team's sense of community	-	1.000	0.760	-
	Enjoyment of work	-	1.000	0.817	-
	Drive	0.110	0.592	0.429	5.387***

\*\*\*  $p < .001$

As a whole, the regression coefficients of observable variable range from  $\beta = 0.293$  to  $\beta = 0.884$ . As shown in Table 03, workaholism is more related with workplace spirituality through the dimension *Alignment between organizational and individual values* ( $\beta = .841$ ).



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### DISCUSSION

The first hypothesis supposing that psychological capital was negatively correlated with workaholism was not supported – instead they are positively correlated. This means that when one increases or decreases, it is reflected in the other of the same order.

The theoretical frame suggests that psychological capital refers to the application of positive aspects in the workplace (Luthans & Youthsef, 2007). Instead, workaholism is a compulsion that drives people to work beyond the economic needs and organizational requirements (Robinson, 1998). Thus, at first glance, a positive correlation between them seems incompatible with the theoretical basis.

Accordingly Spence & Robbins (1992) workaholism distinguished two types of workaholics: the work addict (scores high on Work Involvement and Drive and low on Enjoyment of Work) and enthusiastic (scores high in all dimensions of WorkBat). Our analysis did not show a low score on Work Involvement ( $M = 3.41$ ); Drive ( $M = 3.14$ ) and Enjoyment of work ( $M = 2.78$ ). Previous studies indicate that enthusiastic workaholics “seem to experience relatively high levels of positive human health and psychological well-being” (Fry et al. 2006, p. 331).

The results seem to indicate the prevalence of enthusiasts in the sample. Once these workaholics are related to positive aspects and health, it seems reasonable that the correlation between workaholism and psychological capital has been positive.

Contrary to the second and third hypotheses, data showed workaholism and psychological capital to have positive impact on workplace spirituality. In summary, the higher workaholism or psychological capital is, the greater work spirituality is. This result is associated with two issues. First is the prevalence of enthusiastic workaholism in the sample as shown before.

Finally, the conceptualization of workplace spirituality presented in this study (Ashmos & Duchon, 2000; Milliman et al. 2003; Poole, 2009; Rego et al. 2007; Rego et al. 2008) and the measure adopted (Rego et al. 2007) associated workplace spirituality mainly with sense of community. One may wonder here: does considering oneself as member of a community not lead people to become more involved with work and just work harder?

### CONCLUSION

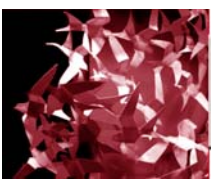
We empirically tested the relationship between Psychological Capital and Workaholism and the repercussions of both on Workplace Spirituality. The results show that there is a positive correlation between psychological capital and workaholism and both have positive and direct repercussion on workplace spirituality. Moreover, a prevalence of enthusiastic workaholism in our sample have been reported.

From these considerations, we report that this study presents scientifically: 1) empirical evidence of a positive correlation between psychological capital and enthusiastic workaholism in the sample analyzed; 2) empirical evidence of the positive influence of psychological capital and enthusiastic workaholism on workplace spirituality in the sample analyzed.

### REFERENCES

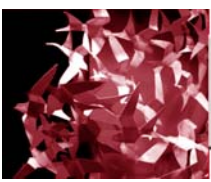
- Andreassen, C. S., Hetland, J. & Pallesen, S. (2010). The Relationship between workaholism: Basic needs satisfaction at work and personality. *European Journal of Personality*, 24 (1), 3-17.
- Ashmos, D. P. & Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of Management Inquiry*, 9(2),134-145.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.





## PSICOLOGÍA POSITIVA: DESARROLLO Y EDUCACIÓN

- Burke, R. J., Matthiesen, S. B. & Pallesen, S. (2006). Personality correlates of workaholism. *Personality and Individual Differences, 40*, 1223–1233.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts. Applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Browne, M. W. & Cudeck, R. (1993). Alternative ways of assessing model fit. In Kenneth A. Bollen & J. Scott Long (Eds.). *Testing structural equation models* (pp. 136-162). Newsbury Park, CA: Sage.
- Carifio, J., & Rhodes, L. (2002). Construct validities and the empirical relationships between optimism, hope, self-efficacy, and locus of control. *Work, 19*, 125–136.
- Carlotto, M. S. (2011). Adição ao trabalho e relação com fatores de risco sociodemográficos, laborais e psicossociais. *Psico-USF, 16*, 87-95.
- Chen, G. & Bliese, P.D. (2002). The role of different levels of leadership in predicting self-and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology, 87* (3), 549-556.
- Douglas, E. J. & Morris, R. J. (2006). Workaholic. or just hard worker? *Career Development International, 11*(5), 394-417.
- Duchon, D. & Plowman, D. A. (2005). Nurturing the spirit at work: Impact on work unit performance. *Leadership Quarterly, 16*, 807-833.
- Fry, L. W., Matherly, L. & Vitucci, S. (2006). Spiritual leadership theory as a source for future theory, research and recovery for workaholism: In R. Burke (Ed.) *Research companion to workaholism in organizations: New horizons in management series* (pp. 330-352). New Horizons in Management Series.
- Krishnakumar, S. & Neck, C.P. (2002). The “what”. “why” and “how” of spirituality in the workplace. *Journal of Managerial Psychology, 17*(3), 153-164.
- Del Líbano, M., Llorens, S., Salanova, M. & Schaufeli, W. B. (2010). Validity of a brief workaholism scale. *Psychothema, 22*, 143-150.
- Kehoe, J. (1995). Basic item analysis for multiple-choice tests. *Practical Assessment, Research & Evaluation 4*(10). Retrieved June 23, 2012 from: <http://pareonline.net/getvn.asp?v=4&n=10>
- Kline, R. B. (2002). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive, 16*, 57-72.
- Luthans, F., Avey, J. B., Avolio, B. J., & Peterson, S. J. (2010). The development and resulting performance impact of positive psychological capital. *Human Resource Development Quarterly, 21*, 41-67.
- Luthans, F., Avey, J. B. & Patera J. L. (2008). Experimental analysis of a web-based micro- intervention on the learning and development of positive psychological states. *Academy of Management Learning and Education, 7*, 209-221.
- Luthans, F., Avolio, B., Walumbwa, F. & Li, W. (2005). The psychological capital of Chinese workers: Exploring the relationship with performance. *Management and Organization Review, 1*, 247–269.
- Luthans, F., & Youssef, C. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics, 33* (2), 143-160.
- Luthans, F. & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management, 33*, 321–349.
- Luthans, F. Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford, UK: Oxford University Press.
- Machado, F. I. M. P. (2008). *Capital psicológico positivo e criatividade dos colaboradores: Um estudo exploratório em organizações de I&DT*. (Master's thesis. Universidade de Aveiro). Retrieved

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- from <http://hdl.handle.net/10773/1608>
- McMillan, L.H.W., Brady, E. C., O'Driscoll, M.P. & Marsh, N.V. (2002). A multifaceted validation study of Spence and Robbins' (1992) Workaholism Battery. *Journal of Occupational and Organizational Psychology*. 75, 357-368.
- Milliman, J., Czaplewski, A. J. & Fergusson, J. (2003). Workplace spirituality and employee work attitudes: An exploratory empirical assessment. *Journal of Organizational Change Management*. 6(4), 426-447. doi: 10.1108/09534810310484172
- Nunnally, J. & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Oates, W. (1971). *Confessions of a workaholic: The facts about work addiction*. New York: World.
- Palma, J., Cunha, P. & Lopes, P. (2007) Comportamento organizacional positivo e empreendedorismo: Uma influência mutuamente vantajosa. *Comportamento Organizacional e Gestão*, 13(1), 93-114.
- Poole, E. (2009). Organizational spirituality: A literature review. *Journal of Business Ethics*. 84(4), 577-588.
- Rego, A. & Cunha, M. (2008). Perceptions of authentic climates and employee happiness: Pathways to individual performance? *Journal of Business Research*. 61(7), 739-752.
- Rego, A., Sousa, F., Pina, Cunha, M., Correia, A. & Saur-Amaral, I. (2007). Leader self-reported emotional intelligence and perceived employee creativity: An exploratory study. *Creativity and Innovation Management*. 16, pp. 250-264. doi: 10.1111/j.1467-8691.2007.00435.x
- Rego, A., Souto, S. & Cunha, M. P. (2007). Espiritualidade nas organizações positividade e desempenho. *Comportamento Organizacional e Gestão (ISPA)*. 13(1), 7-36.
- Robinson, E. (1996). The psychosocial and familial dimensions of work addiction: Preliminary perspectives and hypotheses. *Journal of Counseling & Development*. 74(5), 447-452. doi: 10.1002/j.1556-6676.1996.tb01891.x
- Robinson, E. (1998). *Chained to the desk: A guidebook for workaholics: Their partners and children and the clinicians who treat them*. New York: New York University Press.
- Robinson, B. E. (2000). A typology of workaholics with implications for counselors. *Journal of Addiction & Offender Counseling*. 21(1), 34-48.
- Scott, K. S., Moore, K. S. & Miceli, M. P. (1997). An Exploration of the meaning and consequences of workaholism. *Human Relations*. 50(3), 287-314.
- Scott, M. D., Radosevich, D. J. & Clesca, C. F. (2008). The underpinnings of PsyCap variance: An examination of goal orientation and dark side versus bright side personality dimensions. *Review of Business Research*. 8(6), 160-170.
- Sennett, Richard (1998). *The corrosion of character: the personal consequences of work in the new capitalism*. London, UK: W. W. Norton & Company.
- Spence, J. T. & Robbins, A. S. (1992). Workaholism: Definition. Measurement. and Preliminary Results. *Journal of Personality Assessment*. 58(1), 160-178.
- Stajkovic, A. D. & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin* 124 (2), 240-261.
- Toor, S. R. & Ofori, G. (2010). Positive psychological capital (PsyCap) as a source of sustainable competitive advantage for organizations. *International Journal of Project Management*, 136(3), 341-352.