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Retail employees' self-efficacy and hope predicting their positive affect and creativity

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The study shows how retail employees' self-efficacy and hope predict their creativity, both directly and through the mediating role of positive affect. Five hundred and seven retail employees reported their hope, self-efficacy, and positive affect, their supervisors reporting their creativity. Three main findings are: (1) hope and self-efficacy predict creativity; (2) positive affect also predicts creativity; (3) positive affect partially mediates the relationship between both dimensions of positive psychological capital (self-efficacy and hope), and creativity. The study suggests that retail organizations may foster employees' creativity by encouraging conditions that cultivate employees' hope and self-efficacy, as well as their positive affect.

Keywords: Creativity; Hope; Positive affect; Self-efficacy.

The purpose of this research is to examine how two key elements of positive psychological capital (self-efficacy and hope; Youssef & Luthans, 2011) predict creativity of retail employees (a relatively unexplored area with respect to

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creativity), both directly and through the mediating role of positive affect. Creativity in the workplace can be defined as the production of *novel* and *useful* ideas or solutions concerning products, services, processes, and procedures (Amabile, 1997; Oldham & Cummings, 1996; Zhou & George, 2001, 2003). In volatile environments, creativity may be vital for organizational survival and success (George & Zhou, 2002; Oldham & Cummings, 1996). Unfortunately, studies about creativity in retail organizations are scarce (Kent, 2007). By being creative, retail employees are more able to: (1) improvise (Cunha, Rego, & Kamoche, 2009) in dealing with customers' complaints and idiosyncratic needs (Gwinner, Bitner, Brown, & Kumar, 2005), (2) propose new products and services, (3) suggest creative merchandising techniques, spaces, and "atmospheres" (Kent, 2007), and (4) help colleagues deal with problematic customers or customers who present important business opportunities. Creative ideas allow retail organizations to satisfy customers, provide them with "memorable" consumption experiences, adjust to shifting marketing conditions, respond to opportunities and problems, and thus adapt, grow, and compete (Kent, 2007; Shalley, Zhou, & Oldham, 2004).

Individual creativity is a function of social/contextual (e.g., leadership behaviours) and personal factors (Egan, 2005a; Gong, Huang, & Farh, 2009; Oldham & Cummings, 1996; Shalley & Gilson, 2004; Shalley et al., 2004). This article focuses on three personal factors of retail employees: two "psychological resources" (self-efficacy and hope; Avey, Luthans, Smith, & Palmer, 2010) and positive affect. Although studies relating positive affect and creativity (e.g., Amabile, Barsade, Mueller, & Staw, 2005), hope and creativity (e.g., Rego, Machado, Leal, & Cunha, 2009), self-efficacy and creativity (e.g., Tierney & Farmer, 2004), hope plus self-efficacy, and positive affect (e.g., Avey, Wernsing, & Luthans, 2008) are not new in literature, research incorporating all of these variables in the same model is nonexistent. Studying the impact of positive affect on creativity becomes a more valuable endeavour if antecedents of positive affect that may be developed (e.g., hope and self-efficacy) are also considered. Studying the impact of such psychological strengths on creative performance may be enriched, as well, via the inclusion of mechanisms (e.g., positive affect) that help to understand why/how such psychological strengths "translate" into creativity.

This endeavour is especially important when undertaken in an understudied context, thus shedding light on how and to what degree psychological strengths and positive affect matter across different contexts. By showing that self-efficacy, hope, and positive affect predict retail employees' creativity, and taking into account that such characteristics are state-like and can be promoted/developed through organizational/leadership actions (see the Implications for Management subsection), our article provides theoretical and empirical evidence to help retail organizations promote creativity and, in turn, performance.

With this in mind, we hypothesize that retail employees' hope and self-efficacy predict their creativity both directly and through the mediating role of positive affect (Figure 1). As explained later, we suggest that positive affect is a partial, not a full, mediator between both psychological resources and creativity because other mechanisms also act as mediators. Affect refers to either *specific* emotions or *more diffuse* moods. Moods are “low-intensity, diffuse and relatively enduring affective states without a salient antecedent cause and therefore little cognitive content (e.g. feeling good or feeling bad)”, whereas emotions “are more intense, short-lived and usually have a definite cause and clear cognitive content” (Forgas, 1995, p. 41). However, research suggests that positive moods and positive emotions have identical effects on broadening of cognition and attention (Gable & Harmon-Jones, 2008).

Self-efficacy is defined as people's beliefs in their capabilities to organize and perform actions necessary to achieve a goal or an outcome (Bandura, 1997), predicting job performance (Stajkovic & Luthans, 1998). Self-efficacy is essential for creative productivity (Bandura, 1997), studies having found positive relationships between both variables (e.g., Choi, 2004; Prabhu, Sutton, & Sauser, 2008; Tierney & Farmer, 2004). We hypothesize that positive affect mediates such a relationship: (1) More self-efficacy leads to more positive affect (Avey et al., 2008; Youssef & Luthans, 2007); and (2) such affective states feed creative performance (Fredrickson, 2001; Rego, Machado, et al., 2009; Wright & Cropanzano, 2004).

Hope is “a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)” (Snyder, Irving, & Anderson, 1991, p. 287). Empirical and theoretical evidence (Luthans, Youssef, & Avolio, 2007; Rego, Machado, et al., 2009) suggests that hopeful employees tend to be

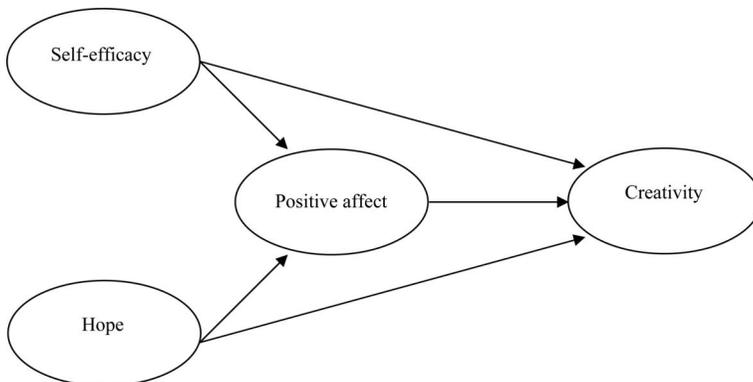


Figure 1. Hypothesized model.

creative. Considering that hopeful employees also tend to experience more positive affect (Avey et al., 2008; Snyder, Rand, & Sigmon, 2002; Snyder et al., 1996), and that positive affect relates positively with creativity (Amabile et al., 2005; Fredrickson, 2001; Wright & Cropanzano, 2004), one may expect that positive affect mediates the relationship between hope and creativity.

Before proceeding, two points are worth noting. First: We include only hope and self-efficacy (without the other two dimensions of psychological capital, resilience and optimism) as independent variables because the data presented here are part of a larger research project where other variables were measured (although the data reported here have not been reported elsewhere). Time constraints imposed by managers in some organizations for allowing employees to participate in the study demanded narrowing the number of variables to be collected. Hope and, mainly, self-efficacy were chosen because of their firmly established theoretical foundation and empirical base in the workplace (Luthans, Youssef, & Avolio, 2007). Second: We focus on *general work-related* self-efficacy, rather than on *creative* self-efficacy, because the former has wider scope and the antecedents of both are not necessarily the same (Tierney & Farmer, 2002, 2004). By showing that general work-related self-efficacy predicts creativity, we suggest that organizations and managers who foster employees' general work-related self-efficacy are able to promote not only "general" outcomes (e.g., job performance and satisfaction; Luthans, Youssef, & Avolio, 2007), but also the "specific" outcome of creative performance. From an *instrumental* point of view, it is more efficient to act upon a personal strength that impacts several positive outcomes (including creativity) than upon another one that potentially impacts creativity only.

HYPOTHESES

Self-efficacy as predictor of creativity

Self-efficacious people choose challenging tasks and endeavours, pursue goals persistently and tenaciously, and persevere in the face of obstacles and difficulties (Avey et al., 2008; Bandura, 1997; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007). This process of setting challenging goals, striving for them, and swimming upstream if necessary, make self-efficacious individuals more prone to propose new and useful ideas for performing tasks successfully and reaching goals. Considering that individuals are motivated to behave in ways consistent with their self-image (Judge & Bono, 2001; Korman, 1970), one may expect that self-efficacious people behave in ways that make them more successful, and that such challenges may enhance creative efforts. Self-efficacy has been thought of as

a generative capability, with Bandura (1997) suggesting that this resource is essential for creative productivity. Several studies have found positive relationships between self-efficacy and creativity (e.g., Choi, 2004; Prabhu et al., 2008; Tierney & Farmer, 2004). Hence, our first hypothesis:

Hypothesis 1: Retail employees with higher self-efficacy are more creative.

Hope as predictor of creativity

Creativity at work requires challenging the status quo and a willingness to try despite possible failure (Zhou & George, 2003). Creativity also “requires some level of internal, sustaining force that pushes individuals to persevere in the face of challenges inherent to creative work” (Shalley & Gilson, 2004, p. 36). High- versus low-hope individuals seem to be more able to face those challenges in a successful way. By being resolute in pursuing goals, and looking for alternative pathways to reach goals when the old ones are blocked (Snyder, 1994, 2002), hopeful employees tend to be risk-takers in their efforts to reach goals. Most of them enjoy pursuing goals, are more intrinsically motivated, and look for creative ways to implement their “agentic energy” (Amabile, 1997; Oldham & Cummings, 1996; Shalley & Gilson, 2004; Snyder, 2002). When hopeful individuals fall short of goals, they use the feedback to improve goal pursuit plans and strategies, thus being more energetic and motivated to look for alternative and creative ways to overcome obstacles (Luthans, Youssef, & Avolio, 2007; Rego, Machado, et al., 2009). It is less likely that they lose patience or become frustrated when facing difficulties in dealing with problems and opportunities. In short, hope feeds creativity (Rego, Machado, et al., 2009). Thus, we hypothesize:

Hypothesis 2: Retail employees with higher hope are more creative.

Positive affect mediating the relationship between self-efficacy and hope, and creativity

Self-efficacy and hope may influence retail employees' creativity through their positive affect: Self-efficacy and hope lead employees to experience positive affective states (Avey et al., 2008), which can make them more creative. We next explain why positive affect may promote creativity, and then show how the effects of self-efficacy and hope on creativity may be partially mediated by positive affect.

The broaden-and-build theory (Fredrickson, 2001, 2003) suggests that positive affective states *broaden* the individual's momentary thought-action

repertoire, thus promoting the discovery of novel and creative actions. Furthermore, by promoting greater degrees of social connectivity (Vaughn & Fredrickson, 2006), positive affect may lead individuals to develop better social relationships with supervisors and co-workers, thus receiving more support, encouragement, and information from them, as well as feeling freer to voice their concerns and propose creative ideas that challenge the status quo (Shalley et al., 2004). Frederickson (2003, p. 174) pointed out that “[p]ositive emotions can transform organizations because they broaden people’s individual modes of thinking, and in so doing, make organizational members more flexible, empathetic, creative, and so on.” Experiencing positive affect may also lead individuals to develop better interpersonal relationships (Lord & Kanfer, 2002; Stephens, Heaphy, & Dutton, 2011). As a consequence, information flows are more fluid and richer, and employees are exposed to a greater variety of new thoughts and approaches about work, and benefit from the insights of others, thus enhancing their creativity (Egan, 2005b; Madjar, 2005; Merlo, Bell, Mengüç, & Whitwell, 2006). From this we derive the following:

Hypothesis 3: Retail employees experiencing more positive affect are more creative.

Several reasons support the prediction that hope and self-efficacy promote positive affect (Avey et al., 2008, 2010). Positive affect flows from perceptions of successful goal pursuit (Snyder, 2002; Snyder et al., 1996). Because self-efficacious and hopeful people deal more effectively with difficulties and persevere when facing failures (Bandura, 1997; Gist & Mitchell, 1992; Luthans, Youssef, & Avolio, 2007; Snyder, 2002; Snyder et al., 1996), they are more likely to attain valued outcomes, thus experiencing positive affective states. Self-efficacious and hopeful people are also more likely to possess positive expectations for goal achievement and to interpret events in a positive way, thus experiencing more positive affect at work, even during potentially stressful events (Avey et al., 2008; Weiss & Cropanzano, 1996). Considering these arguments, one may reasonably expect that hopeful and self-efficacious retail employees develop more positive affect and, thus, express more creative behaviours.

We hypothesize a partial mediation because hopeful and self-efficacious employees may become more creative for reasons unrelated to positive affect. For example, hopeful and self-efficacious people may be more creative because they develop higher intrinsic motivation (Bandura & Schunk, 1981; McAuley, Wraith, & Duncan, 2000; Ryan & Deci, 2000; Snyder et al., 2002) in performing the tasks leading to desired outcomes (Amabile, 1997; Oldham & Cummings, 1996; Tierney, Farmer, & Graen, 1999). Intrinsic motivation increases the employees’ curiosity, and makes

them more open to risk taking, and more persistent in the face of obstacles, all these effects facilitating creativity (Shalley et al., 2004). Positive affective states are not necessary to make hope and self-efficacy translate into creative solutions. In some cases, frustration and other negative affective states resulting from failures and obstacles may lead self-efficacious and hopeful people to continue in searching for creative ways to overcome difficulties and pursue desired goals (George & Zhou, 2002; Martin, Ward, Achee, & Wyer, 1993). From this we derive the following four hypotheses:

Hypothesis 4: Hopeful retail employees experience more positive affect.

Hypothesis 5: Self-efficacious retail employees experience more positive affect.

Hypothesis 6: Positive affect partially mediates the relationship between self-efficacy and creativity.

Hypothesis 7: Positive affect partially mediates the relationship between hope and creativity.

METHOD

Sample and procedures

A convenience sample of 507 employees, working in 169 work units of 34 retail organizations operating in Portugal, was collected. Organizations operated in several sectors (e.g., food, clothing, appliances, sports, toys, footwear, and office materials, furniture, and equipment). Work units' size ranged between three and 10 members, averaging 4.9 members. Work units were composed of shop assistants working under the direction of a supervisor coordinating their work. We spoke personally with the supervisor of each work unit, asking for cooperation. Each supervisor reported the creativity of three subordinates, selected randomly. Shalley and Gilson (2004, p. 35) argued that "managers play a key role in that they are often the individuals best suited to make the determination of whether an employee's outcome should be regarded as creative". Employees reported their own self-efficacy, hope, and positive affect. All respondents were invited to refer to the previous three months in the work unit. To avoid any form of interference, employees and supervisors were asked to fill out their questionnaires in separate locations. To guarantee anonymity, responses were delivered directly to the researchers under sealed cover.

Employees were asked to report age, gender, organizational tenure, schooling years, and the length of supervisor-subordinate contact. These variables were considered for control, for several reasons: (1) Age, tenure, education, and gender appear to be related to creativity (Furnham & Nederstrom, 2010; Rego, Machado, et al., 2009; Tierney et al., 1999); and

(2) the length of supervisor–subordinate contact may interfere, or reflect, the quality of the leader–member exchange, thus influencing how supervisors and employees behave towards each other (Tierney et al., 1999).

Women account for 65.3% of the sample. Mean age is 27.1 years ($SD = 3.9$), and mean organizational tenure is 3.5 years ($SD = 2.1$). 7.3% of the individuals have 9 or fewer years of schooling, 39.1% have between 10 and 12 years, and 53.6% have at least an undergraduate degree. The mean length of supervisor–employee contact is 3.0 years ($SD = 1.9$).

Measures

Self-efficacy. Self-efficacy was measured with the six items suggested by Parker (1998). The items, with small adaptations, have been used by Luthans, Youssef, & Avolio (2007) for measuring self-efficacy as one of the four psychological capital dimensions. Items were worded in terms of the confidence the individuals feel for performing several tasks. The items' final format is as follows: (1) "I feel confident analysing a long-term problem to find a solution"; (2) "I feel confident representing my work area in meetings with senior management"; (3) "I feel confident contributing to discussions about the company's strategy"; (4) "I feel confident helping to set goals in my work area"; (5) "I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems"; and (6) "I feel confident presenting information to a group of colleagues". Individuals were asked to report the degree to which the statements applied to them, through a 5-point Likert scale, from 1 ("the statement does not apply to me at all") to 5 ("the statement applies to me completely"). They were asked to report with regard to their previous three months in the organization. Cronbach's alpha is .90.

Hope. Hope was measured via the State Hope Scale (Snyder et al., 1996). Small adjustments were made for adapting the items to the work context. The items' final wording is as follows: (1) "If I should find myself in a jam at work, I could think of many ways to get out of it" (item measuring waypower); (2) "I am energetically pursuing my work goals" (willpower); (3) "I have the feeling that there are lots of ways around any problem" (waypower); (4) "I can think of many ways to reach my work goals" (waypower); (5) "I see myself as being pretty successful at work" (willpower); and (6) "I am meeting the work goals that I have set for myself" (willpower). Participants were asked to report the degree to which the statements applied to them, through the same 5-point Likert scale used for measuring self-efficacy. They were asked to describe how they felt over the previous three months. Because some literature suggests that agency/willpower and pathways/waypower should be distinguished (Rego, Marques, Leal, Sousa, & Cunha, 2010; Ziv, Chaim, &

Itamar, 2011), confirmatory factor analyses were carried out for comparing the single- and the two-factor models. Although both models fit the data well (e.g., GFI > .94), the two-factor model presents better fit indices, the comparison of both models showing a significant change in χ^2 relative to the difference in degrees of freedom, $\Delta\chi^2(1) = 22.52, p < .001$. Cronbach's alphas are .85, .82, and .90, respectively for willpower, waypower, and overall hope (comprising the six items).

For testing if hope and self-efficacy represent different constructs (the literature suggests that they are part of the psychological capital core construct), confirmatory factor analyses were carried out to compare a two-factor model (hope vs. self-efficacy) with the single-factor model. The findings suggest that while the two-factor model fits the data well (e.g., GFI: .92, NNFI: .94, CFI: .95, IFI: .95), the single factor-model does not (e.g., GFI: .86, NNFI: .88). Comparison of both models shows a significant change in χ^2 relative to the difference in degrees of freedom, $\Delta\chi^2(3) = 233.47, p < .001$. Comparison of the two-factor model with the three-factor one (Self-efficacy + Willpower + Waypower) shows a significant change in χ^2 relative to the difference in degrees of freedom, $\Delta\chi^2(2) = 23.1, p < .001$, the three-factor model showing better fit indices.

Positive affect. Individuals were asked to indicate how often they had felt "happy", "enthusiastic", and "excited" during the previous three months (Turban, Stevens, & Lee, 2009). A 7-point scale, ranging from "never" (1) to "always" (7), was used. These items were adapted by Turban et al. (2009) from the Job Affect Scale (Burke, Brief, George, Roberson, & Webster, 1989). This focus on the frequency, not on the intensity, of the affective states is appropriate because it is the frequency of positive affective states that produces life satisfaction (Diener, Sandvik, & Pavot, 1991) and flourishing (Fredrickson & Losada, 2005). Cronbach's alpha is .78.

Following Podsakoff, MacKenzie, Lee, and Podsakoff (2003), we compared two models for examining the extent to which the results are due to common method variance. The first model includes four factors: six indicators loading on the self-efficacy factor, three indicators loading on the willpower factor, three indicators loading on the waypower factor, and three items loading on the positive affect factor. The second model is identical to the first except for the addition of a latent method variance factor comprising the fifteen items/indicators. No substantive difference exists between the fit indices of either model (e.g., RMSEA is .08 for both models; GFI is .91 and .92, respectively for the first and the second models; NNFI is .92 for both models). The single factor model (all items loading on a single factor) does not fit the data well (e.g., RMSEA: .13, GFI: .83). These findings suggest that common source bias does not constitute a serious threat to the validity of the study.

Creativity at work. Individual creativity at work was measured with the 13 items proposed by Zhou and George (2001), who adopted three items from Scott and Bruce (1994), and developed the remaining 10 items. Sample items are: (1) "Suggests new ways to achieve goals or objectives"; (2) "Comes up with new and practical ideas to improve performance"; and (3) "Is a good source of creative ideas". Supervisors were asked to report the degree to which each sentence applied to the employee, through a 5-point Likert scale, from 1 ("the statement does not apply to this employee at all") to 5 ("the statement applies to this employee completely"). Supervisors were explicitly urged (instructions included in the first part of the questionnaire) to report how the employee behaved *really*, and not how (s)he was *expected* to behave or (s)he *should* act. A principal component analysis, with Varimax rotation, was conducted, a single factor emerging (KMO: .95) with Eigenvalue above 1, explaining 73.5% of the total variance. Cronbach's alpha is .97.

Work-unit/supervisor and organizational effects

Considering that individuals worked in work units and that each supervisor rated three of the work unit's employees, the intraclass correlation (ICC; Cohen, Cohen, West, & Aiken, 2003; Shrout & Fleiss, 1979) was computed for assessing work unit ($n = 169$) effects. ICC is a measure of within-group consensus, the median value in organizational research typically being .12 (James, 1982). ICC is lower than .02 for all the variables of the study. ICC was also computed for assessing organizational ($n = 34$) effects, the values being lower than .03 for all variables of the study. Thus, work unit and organization effects seem to be negligible.

RESULTS

Table 1 depicts means, standard deviations, and correlations. Organizational tenure correlates positively with self-efficacy, willpower, and creativity. Subordinate-supervisor length of contact correlates positively with self-efficacy, willpower, overall hope, and creativity. Self-efficacy correlates positively with overall hope and both dimensions of hope, and with positive affect and creativity. Willpower, waypower, and overall hope correlate positively with positive affect and creativity. Positive affect correlates positively with creativity.

Structural equation modelling (using LISREL with the maximum likelihood estimation method) was used for testing the hypothesized model. Employees' gender, age, schooling, tenure, and length of supervisor-subordinate contact were included for control, the variables whose paths were nonsignificant being removed from the analysis. The findings are

TABLE 1
Means, standard deviations, and correlations

| | Means | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|-------|------|-------|-------|-------|------|--------|-------|-------|-------|-------|-------|
| 1. Gender ^a | — | — | — | — | — | — | — | — | — | — | — | — |
| 2. Age | 27.1 | 3.94 | .21** | — | — | — | — | — | — | — | — | — |
| 3. Organizational tenure | 3.5 | 2.14 | -.01 | .56** | — | — | — | — | — | — | — | — |
| 4. Schooling ^b | 1.5 | 0.63 | .34** | .43** | -.05 | — | — | — | — | — | — | — |
| 5. Length of subordinate-supervisor contact (years) | 3.0 | 1.88 | -.06 | .45** | .72** | .05 | — | — | — | — | — | — |
| 6. Self-efficacy | 3.5 | 0.64 | .00 | -.08 | .09* | -.07 | .09* | — | — | — | — | — |
| 7. Willpower | 3.7 | 0.76 | .06 | -.06 | .10* | -.05 | .14** | .74** | — | — | — | — |
| 8. Waypower | 3.7 | 0.71 | .05 | -.01 | .06 | .00 | .07 | .77** | .78** | — | — | — |
| 9. Overall hope | 3.7 | 0.70 | .06 | -.04 | .09 | -.03 | .11* | .80** | .95** | .94** | — | — |
| 10. Positive affect | 5.4 | 0.79 | .04 | -.02 | .00 | .04 | .08 | .63** | .71** | .64** | .72** | — |
| 11. Creativity | 3.2 | 0.86 | .02 | -.05 | .11** | .00 | .14*** | .65** | .68** | .65** | .70** | .58** |

* $p < .05$, ** $p < .01$. ^a0: female; 1: male. ^b1: 9 or fewer years of schooling; 2: 10–12 years; 3: at least an undergraduate degree.

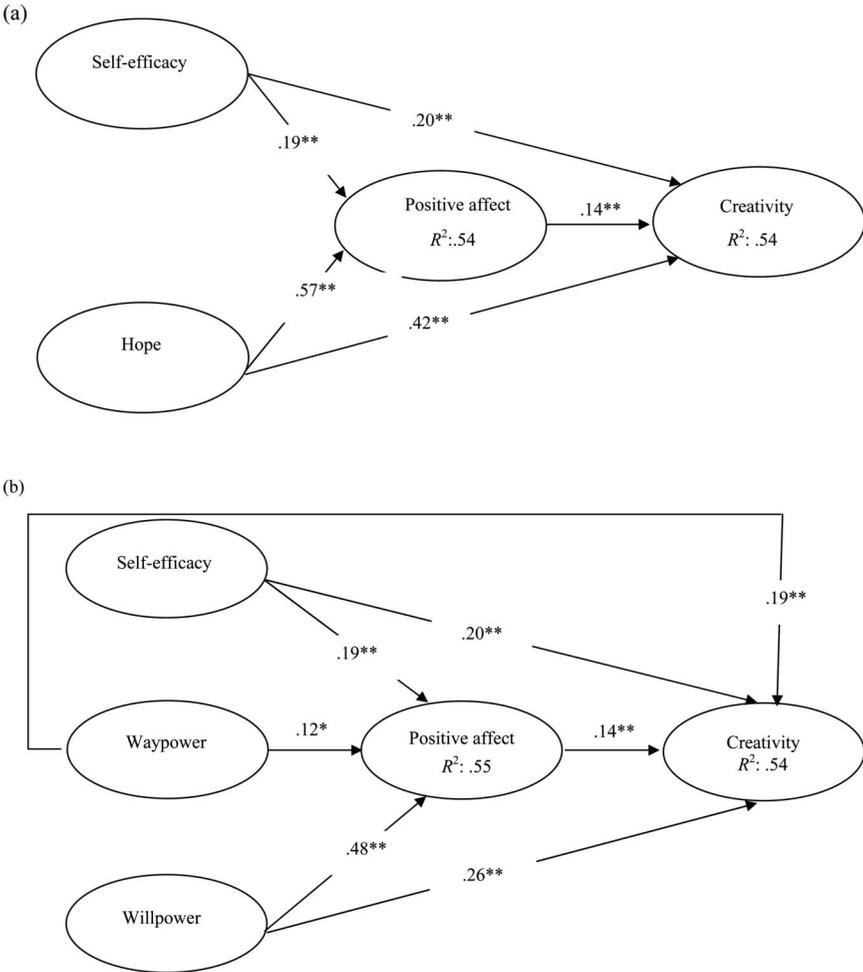


Figure 2. Structural equation analysis for the hypothesized model. Hypothesized model considering (a) a single hope dimension (RMSEA: .04, GFI: .98, CFI: .99, IFI: .99), and (b) hope as a two-factor construct (RMSEA: .05, GFI: .98, CFI: .99, IFI: .99). * $p < .05$, ** $p < .01$. Paths related to control variables are not shown.

depicted in Figure 2a, where standardized path coefficients are presented. For clarity, the paths related to control variables are not presented. All hypothesized paths are significant, all hypotheses being supported. Sobel's test (1982) also supports the mediating effect for both self-efficacy, $z = 2.21$, $p < .05$, and hope, $z = 2.94$, $p < .01$. The bootstrapping method (Preacher & Hayes, 2004), with 5000 resamples, was also used for examining the indirect

effects of both independent variables on creativity through positive affect. Considering that the value zero is not included in the 95% confidence interval (CI), the indirect path through positive affect is statistically significant for both hope, $\beta = .1445$, from .0583 to .2360, and self-efficacy, $\beta = .2396$, from .1564 to .3268.

The model was also tested considering the two-factor model of hope, the fit indices (Figure 2b) being very similar to those of the model where a single hope dimension is considered. The squared multiple correlations for predicting creativity are the same when one versus two dimensions of hope are considered, and very similar (.55 against .54) for predicting positive affect. Thus, the added value of considering both dimensions of hope instead of the single one appears to be weak. However, both dimensions of hope are significant predictors of positive affect and creativity, and willpower has a higher predictive power than waypower.

Three alternative models were compared with the hypothesized model. The first is a full mediation model where no direct relationship between psychological strengths and creativity is considered. When a single dimension of hope is considered, the findings (RMSEA: .23, GFI: .94, CFI: .92, IFI: .92) suggest that the hypothesized partial mediation model fits the data better than the full mediation model, $\Delta\chi^2(2) = 130.7$, $p < .001$. When two dimensions of hope are considered, the findings (RMSEA: .21, GFI: .94, CFI: .94, IFI: .94) also suggest that the hypothesized partial mediation model fits the data better than the full mediation model, $\Delta\chi^2(3) = 129.64$, $p < .001$. For avoiding redundancy in presenting findings, the second and third alternative models consider only a single hope dimension. The hypothesized model fits the data better, $\Delta\chi^2(9) = 229.43$, $p < .001$, than the second alternative model, in which self-efficacy and hope mediate the relationship between positive affect and creativity (RMSEA: .19, GFI: .90, CFI: .86, IFI: .86). Finally, the hypothesized model also fits the data better, $\Delta\chi^2(2) = 263.25$, $p < .001$, than the nonmediated alternative model, in which self-efficacy, hope, and positive affect are direct predictors of creativity (RMSEA: .33, GFI: .88, CFI: .80, IFI: .80).

DISCUSSION AND CONCLUSIONS

Main findings

Focusing on an understudied context, our study corroborates literature stressing the relevance of psychological strengths and positive affect for several work-related outcomes, suggesting that such predictors are valuable across different sectors and/or jobs. As predicted, the study suggests that retail employees' hope and self-efficacy predict their creativity, both directly and through the mediating role of positive affect. Our findings corroborate

those of Avey et al. (2008), who found that positive affect mediates the relationship between psychological capital (a core construct comprising self-efficacy, hope, optimism, and resilience) and several employees' attitudes (e.g., engagement) and behaviours (e.g., organizational citizenship). They also corroborate literature (Amabile et al., 2005; Frederickson, 2003; Rego, Machado, et al., 2009) suggesting that positive affect promotes creative performance. In short, the findings suggest that hopeful and self-efficacious retail employees are more creative, and at least one mechanism through which self-efficacy and hope translate into creative performance is positive affect.

Other mediating mechanisms may operate, such as intrinsic motivation, job satisfaction, and affective commitment (Larson & Luthans, 2006; Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007; Youssef & Luthans, 2007). That is to say, hopeful and self-efficacious people may be more creative, not only because they develop positive affective states, but also because they are intrinsically more motivated to perform the job, to experience greater (or less; Zhou & George, 2001) job satisfaction, or to develop greater affective commitment (Shalley et al., 2004; Shipton, West, Parkes, Dawson, & Patterson, 2006; Zheng & Yang, 2009). For example, self-efficacious retail employees may experience dissatisfaction with the status quo, developing more creative efforts (Zhou & George, 2001). Self-efficacious and hopeful retail employees may develop greater affective commitment towards the organization (Youssef & Luthans, 2007), thus feeling pride in his/her relationship with the organization and developing creative efforts for solving problems and taking advantage of opportunities. In this way they may contribute to goal pursuit (Meyer, Stanley, Herscovich, & Topolnysky, 2002).

It is worth noting that the added value of considering both dimensions of hope instead considering a single one in predicting positive affect and creativity is apparently weak. However, considering both dimensions seems (also) appropriate because both predict positive affect and creativity, and willpower shows higher predictive power. Rego, Machado, et al. (2009) also found that a measure of hope including mainly willpower items, in comparison with a measure of waypower, predicts happiness and creativity better. Both findings suggest that organizations and leaders may be more able to boost employees' positive affect and creativity if they "invest" more in employees' willpower (Luthans, Avey, Avolio, Norman, & Combs 2006; Luthans, Avey, Avolio, & Peterson, 2010; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007) than on waypower. However, waypower should not be neglected. Snyder (1995, 2000, 2002) argued that neither agency/willpower nor pathways/waypower alone are sufficient to develop high levels of hope. An individual with high willpower may not achieve high creative performance if (s)he lacks the waypower necessary to discover

different and creative ways to deal with problems and opportunities. Also, an individual with high waypower is potentially less creative if (s)he lacks the will to persevere when facing problems and opportunities, and in spite of obstacles and drawbacks. These findings, together with the results of the confirmatory factor analysis, suggest that differentiating waypower and willpower may be an appropriate procedure, for both theoretical and empirical reasons (Rego, Marques et al., 2010; Snyder, 2000).

Limitations and future studies

The study has methodological limitations that need to be recognized, and future studies may provide a clearer view of how the variables studied here are empirically related and interact with other variables. First, the data do not allow for an unquestionable determination of the hypothesized causality, other causal links and explanations being plausible. For example, a supervisor may report more creativity in his/her subordinates, not because they are genuinely more creative, but because the subordinate's positive affect influences the leaders' affective states through emotional contagion (Barsade, 2002), improves the quality of leader-member exchange, and creates a halo effect that leads the supervisor to be more benevolent when reporting creativity. One should also not exclude the possibility that supervisors may have been influenced by another important halo effect, employees' performance (i.e., supervisors may have described employees with higher/lower performance better/worse, regardless of their real creativity). Future studies may include employees' performance as control variable.

An example of a different possible direction of causality is that performing creativity acts may induce positive affective states of pride and achievement (Avey et al., 2008; Fredrickson, 2003). Additionally, positive affect may lead to "upward spirals" and, over time, build psychological resources such as self-efficacy and hope (Fredrickson, 2003; Fredrickson & Joiner, 2002). For example, positive affective states may broaden or multiply the pathways that are generated in goal pursuit (Avey et al., 2008). Note that the poor fit of the alternative model we tested (self-efficacy and hope mediating the relationship between positive affect and creativity) does not allow discarding the possibility that positive affect influences hope and self-efficacy. The findings merely allow arguing that the alternative model is *poorer* than the one we presumed, and does not allow us to claim that other causal links are unlikely.

Second, being carried out at a single moment, the study does not capture the dynamics that occur over the course of time involving changes in emotional states and their effects on creativity. It also fails to capture the reciprocal relationships and upward and downward spirals (Fredrickson,

2003; Fredrickson & Joiner, 2002) that occur over time. Longitudinal designs, research diaries, and/or the experience sample methodology may be productive tools for gathering data in future studies (Amabile et al., 2005; Fisher, 2002).

Third, only three positive affective states were measured, which restricts the content coverage of the positive affect's construct domain. Future studies may include a wider range of positive affective states. Future studies may also distinguish high- and low-approach positive affects, since they may have different consequences for the breadth of attention (Gable & Harmon-Jones, 2008) and, thus, for creativity. Some studies also suggest that both the hedonic tone (positive vs. negative), the activation (promotion vs. prevention), and the regulatory focus (promotion vs. prevention) dimensions of affect need to be considered in order to better understand the affect-creativity links (Baas, de Dreu, & Nijstad, 2008; de Dreu, Baas, & Nijstad, 2008). Thus, future studies may consider such dimensions. For example, do affective states that are positive in tone and deactivating (calm, relaxed) influence creativity to a lesser/greater extent than affective states that are positive in tone yet activating (happy, elated)?

Fourth, only hope and self-efficacy were studied as independent variables. Future studies may include other "positive organizational behaviour" constructs, mainly optimism and resilience, the strengths representing the core construct of psychological capital (Luthans, Youssef, & Avolio, 2007; Youssef & Luthans, 2011). Future studies may also include creative self-efficacy as predictor (Tierney & Farmer, 2002, 2004) and test its unique predictive value in comparison with general work-related self-efficacy.

Fifth, future studies may use other mediating variables (e.g., feelings of meaningful work, intrinsic motivation). Future studies may also include context variables (e.g., leadership, job tasks' nature, relationships with co-workers and supervisors) and test the degree to which they interact with personal variables in predicting creativity (Shalley et al., 2004).

Implications for management

Considering that hope and self-efficacy are amenable to intervention (Luthans, Youssef, & Avolio, 2007), and that positive affect is also influenced by leadership and organizational actions, the study suggests that retail organizations may promote their employees' creativity (and, thus, performance; Gong et al., 2009) if they adopt certain actions. For example, hope may be developed through techniques such as (Luthans et al., 2006, 2010; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007): (1) implementing appropriate goal setting; (2) adopting empowerment; (3) showing confidence in employees; (4) preparing employees to deal with contingencies and making them ready for multiple possibilities; (5)

stimulating employees to visualize important upcoming events, to anticipate possible problems and obstacles, and to mentally envision alternative pathways to overcome those obstacles and prepare them to handle blockages; and (6) helping employees to re-goal, readjusting goals when absolute blockages are encountered. Self-efficacy may be developed through techniques such as (Bandura, 1997, 2000; Luthans et al., 2006, 2010; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007; Peterson, Balthazard, Waldman, & Thatcher, 2008): (1) mastery experiences (i.e., allowing employees to experience success); (2) vicarious learning (e.g., through mentoring); and (3), social persuasion (e.g., respected role models assuring employees that they will be successful in new tasks or in change processes). Some authors have suggested that self-efficacy and hope may also be developed through neuroscience-based interventions (Peterson et al., 2008). It is also worth mentioning that actions promoting self-efficacy and hope may stimulate other positive consequences, including workplace performance and organizational commitment (Luthans, Youssef, & Avolio, 2007; Peterson & Byron, 2008; Youssef & Luthans, 2007).

Considering our focus on general work-related self-efficacy, we are assuming that the techniques mentioned here for promoting such psychological resources may be effective without being specifically focused on creative work. We assume, for example, that allowing employees to experience success in performing their tasks leads them to become more self-efficacious and, thus, more creative. If opportunities for experiencing success are provided in specific creative tasks, one may expect an increase in creative self-efficacy. One interesting question to explore in future studies would be to test how and to what degree developing creative self-efficacy nurtures general work-related self-efficacy, and vice versa.

Our findings also show that, through the self-efficacy and hope raising tools referred to earlier, managers and organizations may stimulate creativity not only directly but also by fostering positive affect. The finding opens the door to other interventions aiming to cultivate creativity, considering that positive affect may be promoted through other actions than promoting self-efficacy and hope. Other possible actions for promoting positive affect include (Baumeister & Leary, 1995; Goetz, Frenzel, Stoeger, & Hall, 2010; Kets de Vries, 2001; Rego & Cunha, 2008; Rego, Ribeiro, & Cunha, 2010; Rego, Ribeiro, Cunha, & Jesuino, 2011; Rego, Souto, & Cunha, 2009; Weiss, Suckow, & Cropanzano, 1999): (1) creating opportunities for employees' learning and personal development; (2) encouraging high quality social interactions; (3) improving employees' justice perceptions; (4) facilitating work–family balance; (5) promoting organizational virtuousness; and (6) giving employees opportunities to feel that they control their lives. Through these actions, managers and organizations may also stimulate other positive consequences of positive affect, including job

performance (Wright & Cropanzano, 2004). Pekrun, Goetz, Titz, and Perry (2002) suggested that positive affective states, “help to envision goals and challenges, open the mind to thoughts and problem solving, protect health by promoting resiliency, create attachments to significant others, lay the groundwork for individual self-regulation, and guide the behaviour of groups, social systems, and nations” (p. 149). The literature also suggests that employees displaying positive affect may influence the customers’ positive affect following service encounters, and their evaluations of service quality and satisfaction (Pugh, 2001; Soderlund & Rosengren, 2008).

By promoting employees’ self-efficacy, hope, and positive affect, retail organizations may also create positive impacts on customer satisfaction and, thus, organizational performance. The solution, however, is not to promote only positive affective states and remove all the negative ones. As Fredrickson (2008, p. 453) stressed, “negative emotions are often appropriate and useful” and an extreme infrequency of negative emotions may lead people to lose touch with reality. The solution is to encourage high positivity ratios (Diener, 2000; Fredrickson, 2008; Rego, Sousa, Marques, & Cunha, 2011) to develop more positive people who do not ignore the negative.

REFERENCES

- Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California Management Review*, 40(1), 39–58.
- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect and creativity at work. *Administrative Science Quarterly*, 50, 367–403.
- Avey, H. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology*, 15(1), 17–28.
- Avey, H. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *Journal of Applied Behavioral Science*, 44(1), 48–70.
- Baas, M., de Dreu, C. K. W., & Nijstad, B. A. (2008). A meta-analysis of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological Bulletin*, 134(6), 779–806.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman.
- Bandura, A. (2000). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Locke (Ed.), *Handbook of principles of organization behavior* (pp. 120–136). Oxford, UK: Blackwell.
- Bandura A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41(3), 586–598.
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644–675.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.

- Burke, M. J., Brief, A. P., George, J. M., Roberson, L., & Webster, J. (1989). Measuring affect at work: Confirmatory analyses of competing mood structures with conceptual linkage to cortical regulatory systems. *Journal of Personality and Social Psychology*, *57*, 1091–1102.
- Choi, J. M. (2004). Individual and contextual predictors of creative performance: The mediating role of psychological processes. *Creativity Research Journal*, *16*(2/3), 187–199.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Cunha, M. P., Rego, A., & Kamoche, K. (2009). Improvisation in service recovery. *Managing Service Quality*, *19*(6), 657–669.
- De Dreu, C. K. W., Baas, M., & Nijstad, B. A. (2008). Hedonic tone and activation level in the mood–creativity link: Toward a dual pathway to creativity model. *Journal of Personality and Social Psychology*, *94*, 739–756.
- Diener, E. (2000). Subjective well being: The science of happiness and a proposal for a national index. *The American Psychologist*, *55*(1), 34–43.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being* (pp. 119–139). Oxford, UK: Pergamon.
- Egan, T. M. (2005a). Factors influencing individual creativity in the workplace: An examination of quantitative empirical research. *Advances in Developing Human Resources*, *7*(2), 160–181.
- Egan, T. M. (2005b). Creativity in the context of team diversity: Team leader perspectives. *Advances in Developing Human Resources*, *7*(2), 207–225.
- Fisher, C. (2002). Antecedents and consequences of real-time affective reactions at work. *Motivation and Emotion*, *26*, 3–30.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, *117*, 39–66.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *The American Psychologist*, *56*(3), 218–226.
- Fredrickson, B. L. (2003). The value of positive emotions. *The American Scientist*, *91*, 330–335.
- Fredrickson, B. L. (2008). Promoting positive affect. In M. Eid & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 449–468). New York, NY: Guilford Press.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, *13*(2), 172–175.
- Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *The American Psychologist*, *60*, 678–686.
- Furnham, A., & Nederstrom, M. (2010). Ability, demographic and personality predictors of creativity. *Personality and Individual Differences*, *48*, 957–961.
- Gable, P. A., & Harmon-Jones, E. (2008). Approach-motivated positive affect reduces breadth of attention. *Psychological Science*, *19*, 476–482.
- George, J. M., & Zhou, J. (2002). Understanding when bad moods foster creativity and good ones don't: The role of context and clarity of feelings. *Journal of Applied Psychology*, *87*(4), 687–697.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, *17*, 183–211.
- Goetz, T., Frenzel, A., Stoeger, H., & Hall, N. (2010). Antecedents of everyday positive emotions: An experience sampling analysis. *Motivation and Emotion*, *34*(1), 49–62.
- Gong, Y., Huang, J., & Farh, J. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, *52*(4), 765–778.
- Gwinner, K. P., Bitner, M. J., Brown, S. W., & Kumar, A. (2005). Service customization through employee adaptiveness. *Journal of Service Research*, *8*(2), 131–148.

- James, L. R. (1982). Aggregation bias in estimates of perceptual measures. *Journal of Applied Psychology, 67*, 219–229.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluation traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92.
- Kent, T. (2007). Creative space: Design and the retail environment. *International Journal of Retail and Distribution Management, 35*(9), 734–745.
- Kets de Vries, M. F. R. (2001). Creating authentizotic organizations: Well-functioning individuals in vibrant companies. *Human Relations, 54*, 101–111.
- Korman, A. K. (1970). Toward an hypothesis of work behavior. *Journal of Applied Psychology, 54*(1), 31–41.
- Larson, M., & Luthans, F. (2006). Potential added value of psychological capital in predicting work attitudes. *Journal of Leadership and Organizational Studies, 13*(1), 45–62.
- Lord, R. G., & Kanfer, R. (2002). Emotions and organizational behaviour. In R. Lord, R. Klimoski, & R. Kanfer (Eds.), *Emotions in the workplace: Understanding the structure and role of emotion in organizational behaviour*. San Francisco, CA: Jossey-Bass.
- Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., & Combs, G. M. (2006). Psychological capital development: Toward a micro-intervention. *Journal of Organizational Behavior, 27*(3), 387–393.
- 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*(1), 41–67.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541–572.
- Luthans, F., & Youssef, C. M. (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., & Avolio, B. J. (2007). *Psychological capital*. Oxford, UK: Oxford University Press.
- Madjar, N. (2005). The contributions of different groups of individuals to employees' creativity. *Advances in Developing Human Resources, 7*(2), 82–206.
- Martin, L. L., Ward, D. W., Achee, J. W., & Wyer, R. S. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology, 64*, 317–326.
- McAuley, E., Wraith, S., & Duncan, T. E. (2000). Self-efficacy, perceptions of success, and intrinsic motivation for exercise. *Journal of Applied Social Psychology, 21*(2), 139–155.
- Merlo, O., Bell, S. J., Mengüç, B., & Whitwell, G. J. (2006). Social capital, customer service orientation and creativity in retail stores. *Journal of Business Research, 59*(12), 1214–1221.
- Meyer, J., Stanley, D., Herscovich, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20–52.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal, 39*, 607–634.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology, 83*(6), 835–852.
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Positive emotions in education. In E. Frydenberg (Ed.), *Beyond coping: Meeting goals, visions, and challenges* (pp. 149–174). Oxford, UK: Elsevier.

- Peterson, S. J., Balthazard, P. A., Waldman, D. A., & Thatcher, R. W. (2008). Neuroscientific implications of psychological capital: Are the brains of optimistic, hopeful, confident, and resilient leaders different? *Organizational Dynamics*, 37(4), 342–353.
- Peterson, S. J., & Byron, K. (2008). Exploring the role of hope in job performance: Results from four studies. *Journal of Organizational Behavior*, 29, 785–803.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Prabhu, V., Sutton, C., & Sausser, W. (2008). Creativity and certain personality traits: Understanding the mediating effect of intrinsic motivation. *Creativity Research Journal*, 20(1), 53–66.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, and Computers*, 36, 717–731.
- Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal*, 44(5), 1018–1027.
- Rego, A., & Cunha, M. P. (2008). Perceptions of authentic climates and employee happiness: Pathways to individual performance? *Journal of Business Research*, 61(7), 739–752.
- Rego, A., Machado, F., Leal, S., & Cunha, M. P. (2009). Are hopeful employees more creative? An empirical study. *Creativity Research Journal*, 21(2/3), 223–231.
- Rego, A., Marques, C., Leal, S., Sousa, F., & Cunha, M. P. (2010). Psychological capital and performance of civil servants: Exploring neutralizers in the context of an appraisal system. *International Journal of Human Resource Management*, 21(9), 1531–1552.
- Rego, A., Ribeiro, N., & Cunha, M. P. (2010). Perceptions of organizational virtuousness and happiness as predictors of organizational citizenship behaviours. *Journal of Business Ethics*, 93, 215–225.
- Rego, A., Ribeiro, N., Cunha, M. P., & Jesuino, J. C. (2011). How happiness mediates the organizational virtuousness and affective commitment relationship. *Journal of Business Research*, 64, 524–532.
- Rego, A., Sousa, F., Marques, S., & Cunha, M. P. (2011). Optimism predicting employees' creativity: The mediating role of positive affect and the positivity ratio. *European Journal of Work and Organizational Psychology*. doi:10.1080/1359432X.2010.550679
- Rego, A., Souto, S., & Cunha, M. P. (2009). Does the need to belong moderate the relationship between perceptions of spirit of camaraderie and employees' happiness? *Journal of Occupational Health Psychology*, 14(2), 148–164.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *The American Psychologist*, 55(1), 68–78.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580–607.
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *Leadership Quarterly*, 15(1), 33–53.
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6), 933–958.
- Shipton, H., West, M., Parkes, C., Dawson, J., & Patterson, M. (2006). When promoting positive feelings pays: Aggregate job satisfaction, work design features, and innovation in manufacturing organizations. *European Journal of Work and Organizational Psychology*, 15(4), 404–430.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 2, 420–428.

- Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York, NY: Free Press.
- Snyder, C. R. (1995). Conceptualizing, measuring, and nurturing hope. *Journal of Counseling and Development, 73*(3), 355–360.
- Snyder, C. R. (2000). *Handbook of hope*. San Diego, CA: Academic Press.
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*, 249–275.
- Snyder, C. R., Irving, L., & Anderson, J. (1991). Hope and health. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 285–305), Elmsford, NY: Pergamon.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2002). Hope theory: A member of the positive psychology family. In S. J. Lopez & C. R. Snyder (Eds.), *Handbook of positive psychology* (pp. 257–276), New York, NY: Oxford University Press.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Border, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the state hope scale. *Journal of Personality and Social Psychology, 70*, 321–335.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312), San Francisco, CA: Jossey-Bass.
- Soderlund, M., & Rosengren, S. (2008). Revisiting the smiling service worker and customer satisfaction. *International Journal of Service Industry Management, 19*(5), 552–574.
- Stajkovic, A., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*, 240–261.
- Stephens, J. P., Heaphy, E., & Dutton, J. E. (2011). High quality connections. In K. Cameron & G. Spreitzer (Eds.), *Handbook of positive organizational scholarship*. New York, NY: Oxford University Press.
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Potential antecedents and relationship to creative performance. *Academy of Management Journal, 45*, 1137–1148.
- Tierney, P., & Farmer, S. M. (2004). The Pygmalion process and employee creativity. *Journal of Management, 30*(3), 413–432.
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology, 52*, 591–620.
- Turban, D., Stevens, C., & Lee, F. (2009). Effects of conscientiousness and extraversion on new labor market entrants' job search: The mediating role of metacognitive activities and positive emotions. *Personnel Psychology, 62*(3), 553–573.
- Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self-other overlap, and complex understanding in the formation of new relationships. *Journal of Positive Psychology, 1*, 93–106.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory. In B. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (pp. 1–74). Greenwich, CT: JAI Press.
- Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology, 84*, 786–794.
- Wright, T. A., & Cropanzano, R. (2004). The role of psychological well-being in job performance: A fresh look at an age-old quest. *Organizational Dynamics, 33*(4), 338–351.
- Youssef, C., & Luthans, F. (2011). Psychological capital: Meaning, findings and future directions. In K. S. Cameron & G. Spreitzer (Eds.), *The Oxford handbook of positive organizational scholarship* (pp. 17–27). Oxford, UK: Oxford University Press.
- Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism and resilience. *Journal of Management, 33*(5), 774–800.
- Zheng, M. L., & Yang, J. (2009). An empirical study of team commitment, knowledge sharing and team creativity in Chinese high-tech innovation teams. In F. G. Duserick (Ed.), *Eighth Wuhan international conference on E-business* (pp. 2254–2260). New York, NY: Alfred University.

- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, *44*(4), 682–696.
- Zhou, J., & George, J. M. (2003). Awakening employee creativity: The role of leader emotional intelligence. *Leadership Quarterly*, *14*, 545–568.
- Ziv, N., Chaim, A. B., & Itamar, O. (2011). The effect of positive music and dispositional hope on state hope and affect. *Psychology of Music*, *39*(1), 3–17.

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