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RESEARCH PAPER

From Positive Orientation to Job performance: The Role of Work Engagement and Self-efficacy Beliefs

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Abstract This study aims to investigate the validity of a conceptual model that explains the mechanisms linking positive orientation (P-OR) to future job performance in a sample of 388 male security agents. The relationship between P-OR and job performance as rated by three supervisors, each with different responsibilities with respect to the participants, was examined via the company's performance appraisal tool. In particular, this study investigated whether the relationship between P-OR and job performance is mediated by work engagement and moderated by levels of work self-efficacy beliefs. Results were consistent with predictions made from the conceptual model in that work engagement partially mediated the relation between P-OR and job performance. This was particularly the case when work self-efficacy beliefs were high or medium, but not when work self-efficacy beliefs were low. Likewise, P-OR exerted a residual direct effect on job performance when work self-efficacy beliefs were high or medium, but not when they were low. Overall, the findings demonstrated that work engagement and work self-efficacy beliefs refer to key mechanisms turning POS into job performance.

Keywords Work engagement · Positive orientation · Self-efficacy beliefs · Moderated mediation · Job performance

1 Introduction

A large body of research has focused on human strengths and positive qualities, that can be "measured, developed, and effectively managed for performance improvement in today's

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workplace" (Luthans 2002a, p. 59). Following this line of research, the present contribution aims to examine the extent to which an individual's positive orientation (P-OR) may contribute to a better understanding of relevant aspects of organizational behavior. P-OR has been identified in past cross-sectional (Caprara et al. 2010b), cross-cultural (Caprara et al. 2012c, Caprara et al. 2010), genetic (Caprara et al. 2009), and longitudinal studies (Alessandri et al. 2012a) as a common latent factor including self-esteem, life satisfaction, and optimism. Essentially, P-OR is conceived as capturing a pervasive mode of viewing and facing reality from a positive stance and as affecting the way individuals evaluate their subjective experiences (Caprara et al. 2012c). As postulated by the Conservation of Resource (COR) model (Hobfoll 1989, 1998), this general personal orientation toward the world (Antonovsky 1979) leads individuals to perceive events as predictable and generally occurring in one's best interest (Hobfoll 1989, p. 517). Moreover, by enhancing the feeling of control upon reality, P-OR is expected to act as the *key* resource in sustaining individual engagement at work (Hobfoll 1989). Accordingly, more positive workers may achieve higher levels of job performance thanks to a larger availability of personal resources.

The above theoretical expectations have been corroborated by recent studies. For example, Alessandri et al. (2012c) have found that P-OR significantly predicts in-role and extra-role performance, with little residual variance accounted for by self-esteem, life satisfaction, and optimism once their common component (as reflected by the measure of P-OR) was taken into account. While the benefits associated with P-OR have become clear, the processes through which P-OR translates into successful organizational behaviors are still unknown. Consequently, understanding the pathways linking P-OR to important organizational outcomes represents a critical question since it may lead to more effective interventions and to successful strategies for employees to fully develop their potentials.

In this study, we propose an overarching conceptual model (Fig. 1) aimed to explain the mechanisms linking the psychological resource of P-OR to job performance. In particular, we hypothesize that the influence P-OR exerts on job performance is at least partially mediated by work engagement, defined as: "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption" (Schaufeli et al. 2002, p. 74). Loosely speaking, P-OR is expected to act as a psychological resource that may foster the individual's ability to engage and to persist in assigned work tasks. Furthermore, we expect that this indirect relation may be moderated (i.e. promoted or hampered) by the individual's confidence in his own self-perceived ability to succeed in the task, or, more formally, his or her self-efficacy beliefs, conceived as the individuals' personal beliefs regarding their capabilities to produce designated levels of performance (Bandura 1994). Thus, our research model assigns crucial roles to work engagement (Schaufeli et al. 2002) as well as to work self-efficacy beliefs (Bandura 1994). Both work engagement and self-efficacy beliefs are well acknowledged concepts and their predictive value for job performance has been repeatedly established (Bakker 2011; Bakker and Demerouti 2008; Stajkovic and Luthans 1998). Furthermore, work self-efficacy beliefs have been considered among the strongest predictors of work engagement (e.g. Bakker and Leiter 2010).

The main novelties introduced by our model, are (1) to consider P-OR as a psychological resource that sustains work engagement, (2) the mediating role assigned to work engagement in the relation between P-OR and work performance, and (3) the moderating role assigned to work self-efficacy beliefs in the relation between work engagement and job performance. Thus, we have assigned work self-efficacy beliefs the role of a gatekeeper that sets the boundary conditions for the statistical significance of both the direct and the mediated effects of P-OR on job performance.

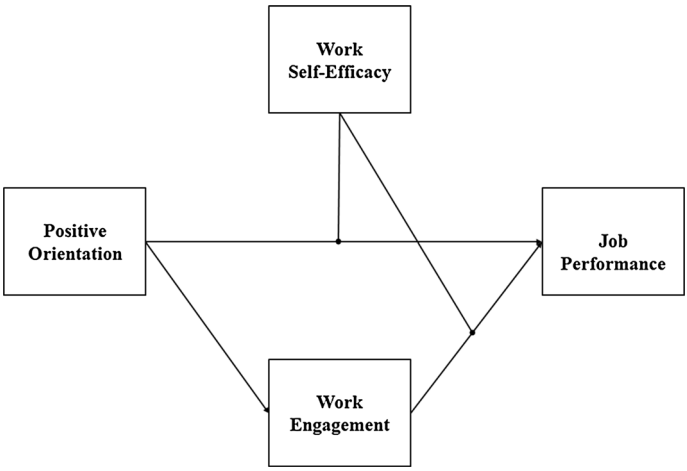

Fig. 1 The conceptual model

The aims of this study are twofold. First, to simultaneously confirm the empirical relations already supported in previous studies among (1) P-OR, work engagement and work self-efficacy beliefs and job performance, (2) work engagement and work self-efficacy beliefs. Second, to investigate the mediating role of work engagement and the moderating role of work self-efficacy beliefs on the relationship between P-OR and job performance. In doing so, we propose and validate an integrated model that may further our understanding of the psychological mechanisms that explain why job performance improves as a result of P-OR. To increase the ecological validity of our study, we used multiple supervisor ratings as indicators of individuals' job performance. An inter-subjective assessment that is based on multiple supervisor ratings is a superior indicator of job performance as compared to self-ratings (Kruger and Dunning 1999). Such supervisor ratings are relevant from a practical point of view because they constitute the basis for salary increases and promotions (Robie and Ryan 1999). Furthermore, survey assessment and performance evaluation were separated in time, thus allowing a better understanding of the predictive value of psychological variables.

1.1 Positive Orientation as an Individual Adaptive Resource

Researchers widely recognize that positive stable personal characteristics are related to job performance (Cameron and Caza 2004; Luthans 2002; Wright 2003). For example, positive psychological traits such as self-esteem, optimism, and life satisfaction are known as significant predictors of job performance (Judge and Bono 2001; Kluemper et al. 2009; Wright and Cropanzano 2000). Indeed, individuals with a positive view of themselves are more likely to accept their identities and to make more favorable inferences about themselves and this subsequently translates in better performance (Locke et al. 1996). Instead, low self-esteem may lead to overgeneralizing the negative implications of failure (Brown and Dutton 1995). Tellingly, Judge and Bono's (2001) meta-analysis reported a correlation of .26 between self-esteem and job performance. Likewise, optimism (Kluemper et al. 2009; Luthans et al. 2007; Seligman and Schulman 1986; Youssef and Luthans 2007) and

life satisfaction (DeLuga and Mason 2000; Wright and Cropanzano 2000) may contribute to job performance by fostering high tolerance to stress, resiliency, and cooperativeness.

In an empirical study, Alessandri et al. (2012c) used three different samples to demonstrate that, after controlling for P-OR, the influence of self-esteem, life satisfaction, and optimism on job performance was reduced to zero. Across three studies, the mean correlation of P-OR with job performance exceeded .20, and was close in size to that reported for conscientiousness and job performance (see Alessandri et al. 2012c). Furthermore, the influence of P-OR on job performance also held when (1) core self-evaluations (2) positive affect and (3) the Big Five personality traits (McCrae and Costa 2008) were simultaneously taken into account (Alessandri et al. 2012c).

These results corroborate the adaptive value of P-OR, defined as the dispositional, genetically-based common core underlying self-esteem, life satisfaction, and optimism, also within work settings (Caprara et al. 2009). As it stands, one basic tenet of P-OR theory is that viewing oneself, life and the future under a positive outlook attests to a basic predisposition that exerts an important biological function in making people prone to cope with life, despite adversities, failures and loss (Caprara et al. 2009). Such a view is needed for people to grow, to flourish and to continue to care for living, despite the decline of aging and the idea of death.

The reasoning underlying P-OR theory draws upon earlier intuitions of Beck (1967) positing a negative view of oneself, the world, and the future at the core of social cognitive processing of depressed versus non-depressed persons. In a similar vein the P-OR theory (Alessandri et al. 2012a, b, c; Caprara et al. 2009) focused on the cognitive triad that leads people to hold a positive view of themselves, life, and the future. Of interest, empirical findings from different populations have shown that negative views of oneself, the world, and the future can be been traced to a single underlying dimension: namely negative thinking (Anderson and Skidmore 1995; Bebbington 1985; Haaga et al. 1991; McIntosh and Fischer 2000), in the same way self-esteem, life satisfaction and optimism can be traced under P-OR. However it would be unwarranted to regard P-OR and negative thinking as the opposite poles of the same dimension and to trace their expressions to the variations of a unique predisposition. In reality it is likely that that P-OR and negative thinking, although correlated, should be traced to different latent dimensions. Likely, a positive view predisposing to afford all challenges and difficulties of human existence exerts an important biological function. Finally, one can't exclude that other constructs might be traced to P-OR in addition to self esteem, life satisfaction, and optimism. Yet previous models that have included personal characteristics are highly associated to self esteem, life satisfaction and optimism, like generalized self-efficacy (Olés et al. 2012), and positive affectivity (Watson et al. 1988), or similar constructs like core self-evaluations (Judge et al. 1998), have shown a worst fit than the proposed model.

1.2 Work Engagement as The Mediator

Whereas a direct relation between P-OR and job performance has been firmly established, plausible mediators that may play a role in this relationship have been not investigated, so far. For example, it is likely that P-OR predicts work engagement. By leading individuals to see events as predictable and generally occurring in one's best interest (Caprara et al. 2010), P-OR may lead individuals to perceive their working conditions as more favourable, their work goals as more attainable, and to reduce the impact of the challenges and stressors resulting from daily experiences at work. Following this lead, Bakker (2011) has proposed that positive self-evaluations are linked to resiliency and to individuals' sense of

their ability to successfully control and to have an impact on their environment. This means that positive self-evaluations, such as those captured by P-OR, fit with the general definition of a basic personal resource which allows people to adapt to or cope with environmental demands and stressors and improve well-being (Hobfoll 2002; Hobfoll et al. 2003; Turner et al. 2004). Moreover, positive self-beliefs are closely associated with work engagement. Indeed, previous studies have demonstrated that more engaged workers are characterized by tenacity and persistence, and that they are driven by a solid belief in future success (Sweetman and Luthans 2010; Xanthopoulou et al. 2007, 2009a, b). As argued by Bakker (2010), "engaged workers continue to provide hope for goal achievement even in the face of new challenges, and expect good things to happen to them" (p. 232). Indeed, as observed in a recent diary study, the level of hope at the beginning of a working day had a positive effect on the level of engagement that the employees reported at the end of that same working day (Ouweneel et al. 2012). Theoretically, P-OR is postulated to set the basis of individuals' levels of optimism and hope (see Alessandri et al. 2012a; Caprara et al. 2010; Caprara et al. 2012c). Findings that place positive self-beliefs among the stronger predictors of work engagement suggest a plausible indirect pathway—via work engagement—through which P-OR might influence job performance. Indeed, it seems likely that P-OR might represent a crucial psychological resource that fosters work engagement, by urging individuals to invest energy in their work activity and sustaining their efforts to achieve (Alessandri et al. 2012c).

The final pathway hypothesized by our theoretical mediational chain is then the one that links work engagement to job performance. As a matter of fact, it is through this pathway that the indirect influence of P-OR is transmitted via work engagement to job performance. Commonly, hard workers are expected to achieve more and better (Bakker 2011). Indeed, a significant relationship between work engagement and job performance has been repeatedly confirmed. Engaged workers approach their work proactively (Schaufeli and Bakker 2004; Salanova and Schaufeli 2008), are more dynamic (Bakker and Leiter 2010; Hakanen et al. 2008), are more responsive to new information (Bakker 2011), score higher on measures of extra role behaviors (Bakker and Schaufeli 2008), are more focused (Macey et al. 2009), and work harder (Bakker 2011; Bakker 2010). Furthermore, engaged employees have both personal and job resources that motivate them to perform.

Hypothesis 1 Work engagement mediates the relationship between P-OR and job performance

1.3 Self-efficacy Beliefs as the Gatekeeper

Social cognitive theorists have stressed the pervasive role that self-efficacy beliefs exert on personality functioning through their influence on affect, thought, motivation, and action (Bandura 1997). Even though other factors may operate as drivers and motivators in people's efforts to reach desired goals and results, they are rooted in the core belief that one has the power to produce effects by one's own action (Bandura 1997, 2001). Unless people believe they attain desired results from their actions, they have little incentive to undertake activities or to persevere in the face of difficulties. Moreover, the self-assurance with which people approach and manage difficult tasks determines whether they make good or poor use of their competencies. All in all, a strong sense of personal efficacy overrules insidious self-doubt and sustains the development of competencies and the regulation of action (Bandura 1986).

Over the years, the substantial influence of self-efficacy beliefs on individual functioning and behaviour within organizational settings, and their predictive value has been largely confirmed by several empirical studies (see Bandura 1997, for a review). Of importance, self-efficacy has been empirically linked to higher work engagement (see Bakker 2011, for a review), and better work performance (see Bandura 1997). It is unlikely that efforts and sacrifices may lead to accomplish challenging objectives, unless individuals have the necessary abilities and competences to establish the proper sequence of actions conducive to achieve the valued goals (Bandura 1997). The confidence people hold in their own abilities and competence appears thus to be crucial to ensure the success of continued efforts and engagement with one's one work (Stajkovic and Luthans 1998), since self-efficacy beliefs have proven to be a proxy of actual competencies (see Bandura 1997).

In our model, we propose that workers' self-efficacy beliefs influence job performance by acting as a boundary condition for the predicted relationship occurring between work engagement and job performance. Also engaged workers are less likely to achieve success in their work if they feel they are not competent at doing so. Indeed, in the absence of a strong personal belief of efficacy, also the more well-minded efforts may remain useless. People may stop pursuing challenging task if they feel that the demands exceed their personal assets in terms of abilities and capacities. Thus, an adequate sense of personal efficacy is crucial to ensure the link between work engagement and job performance. To be sure, this is the first attempt, to the best of our knowledge, to investigate the moderating role of work self-efficacy beliefs on the work engagement—job performance relationship, although several studies have supported the moderating role of self-efficacy beliefs with respect to several organizational outcomes. For example, in demanding work contexts, efficacious individuals reacted less negatively in terms of psychological and physical strain to long work hours and work overload (Consiglio et al. 2013; Jex and Bliese 1999; Salanova et al. 2002), were more proactive, by using effective coping strategies, compared to colleagues demonstrating low self-efficacy beliefs (Jex et al. 2001), and developed fewer psychological health symptoms (Schaubroeck et al. 2002; Schaubroeck and Merritt 1997).

Based on previous theoretical arguments, and the above referenced empirical findings, we posited a model in which the direct relation of work engagement with job performance is, in fact, moderated by work self-efficacy beliefs. Lacking of the appropriate confidence in one's own abilities, also the more motivated and engaged workers are destined to failure. Instead, appropriate abilities make efforts fruitful. In sum, other things being equal, the stronger work self-efficacy beliefs, the more gains engaged workers derive from their work.

Therefore, we hypothesized a stronger relationship between work engagement and job performance for employees with higher levels of work self-efficacy. On the contrary, we predicted a weaker relationship between work engagement and job performance for workers with low levels of work self-efficacy beliefs. As stated above, while a robust belief in one's own competence and ability opens the way to higher achievements for engaged workers, a lack of confidence compromises the virtuous link between effort and achievement.

Assuming that work self-efficacy beliefs moderate the association between work engagement and job performance, implies that work self-efficacy beliefs conditionally influence the strength of the indirect relation between P-OR and job performance. Loosely speaking, we expect that being positive and working hard will lead to better job performance only among those workers who have a strong sense of personal efficacy regarding their work. Doubts about one's own competencies and reservations about one's ability to

perform work tasks (or, briefly, a low self-efficacy beliefs) would compromise the achievements, also of those workers who are highly engaged in their work and well equipped in terms of P-OR. In theoretical terms, work self-efficacy beliefs are hypothesized to act as the gatekeeper able to open or close the way for more positively oriented and engaged individuals to increase their work achievements. This hypothesis makes our hypothetical model a "moderated mediation model" (Preacher and Hayes 2004), in which the effect of an independent variable (P-OR) on the outcome (job performance) and the partial effect of the mediator (work engagement) on the outcome (job performance), depends on the levels of another variable (in the present case, work self-efficacy beliefs). A moderated mediational model is characterized by the simultaneous presence of a a moderator variable (in this case work self-efficacy beliefs), that influences the strength of a relationship between two other variables (in this case work engagement and job performance, and P-OR and Job performance), and a mediator variable (in this case, work engagement), that explains the relationship between two other variables (in this case P-OR and Job performance). With respect to a simple moderated model, the moderator variable (again work self-efficacy beliefs) influences not only the direct link between two variables (i.e., the direct relation between work engagement and job performance and between P-OR and job performance), but also the indirect relation (mediated) between two variables (i.e., the indirect effect of P-OR on job performance via work engagement).

Caprara et al. (2010a) proposed that self-efficacy beliefs may act as moderators of the behavioural expression of P-OR. It is likely that confidence in one's own competences encourages individuals to invest more resources in pursuing the desired outcomes, and that this, in the end, increases their chances of success. In contrast, following this reasoning, we did not expect any significant moderation by work self-efficacy beliefs on the relation between P-OR and work engagement, because it seems likely that psychological resources, such as P-OR, could sustain individuals' efforts to achieve, independently of the perceived level of competence. Thus, we further examined if work self-efficacy beliefs moderated the direct relation between (1) P-OR and work engagement and (2) P-OR and job performance, although we did not expect these predictions to be significant.

Hence, we examined the following hypotheses:

Hypothesis 2 The relationship between work engagement and job performance is stronger for workers high on work self-efficacy beliefs than for workers low on work self-efficacy beliefs.

Hypothesis 3 The relationship between P-OR and job performance is stronger for workers high on work self-efficacy beliefs than for workers low on work self-efficacy beliefs.

Hypothesis 4 Work self-efficacy beliefs moderate the indirect effect of P-OR on job performance (through work engagement). Specifically, work engagement mediates the indirect effect when work self-efficacy beliefs is high but not when it is low.

Finally, on the basis of the empirical evidence reviewed above, we also expected that work self-efficacy beliefs are directly associated with both job performance and work engagement. As these relationships were not the focus of our study, we did not present these as formal hypotheses although we expect to replicate these findings.

2 Methods

2.1 Participants

Participants were 388 male security agents, working for a national security company in Italy.

Participants were recruited during a two-wave study aimed to investigate the individual predictors of job performance. The mean age of participants was 38.78 (SD = 9.74). Sixty-three percent of the sample were married, 28 % were single, 8 % were divorced, and 1 % was widowed. Data on P-OR, work engagement, and work self-efficacy beliefs were collected during specific testing sessions organized by a subsidiary agency of the company, located in Rome. These sessions were offered as a free opportunity to each employee (response rate was: 95 %). All participants were asked through informed consent that their performance evaluations, obtained from their supervisors, would be linked with their survey responses. Participants' performance evaluations were gathered from the human resources department 12 months later. This time interval was deemed appropriate, given our focus on the predictive value of examined individual differences, which conceptually implies temporal separation between predictors and outcomes. Furthermore, this 12 months period agrees with the Human Resources-cycle of performance evaluations.

2.2 Procedures and Background Information

Participants were enrolled in a larger project promoted by the company, to investigate the key psychological variables on which to invest to build in-service training to develop employees' job performance. The present firm provides residential and small business security services in Italy. The corporate head office is located in Rome. Since its foundation, in the early 1980, this company is one of the financially healthier and well-regarded firms in the field operating within the Italian context. During the last decade, this firm has grown into one of the largest security companies of Italy, and now counts more than 1,500 workers and offices all over the country. Over the years, workers were selected based on the following criteria: personality traits (i.e. individuals are expected to be emotionally stable, stress-resistant, inclined to respect rules and procedures, and motivated to do risky work), absence of any criminal record, previous experience as a volunteer in the army, and physical prerequisites (i.e., height, self-defense skills, and so on).

3 Measures

3.1 Positive Orientation ($\alpha = .85$)

To measure P-OR, we used the P-Scale (Caprara et al. 2012a). The psychometric properties of this instrument, in terms of internal validity, factorial validity, and predictive validity have been well-established in different samples and cultures (Caprara et al. 2012a). The scale is composed of eight items (see Caprara et al. 2012a for details on scale construction and items selection): three assessing self-esteem, (e.g. "I feel I have many things to be proud of"), three assessing optimism (e.g. "I have great faith in the future"), one assessing life satisfaction (e.g. "I am satisfied with my life"), and one assessing orientation toward others (e.g. "Others are generally here for me when I need them"). One items is negatively

worded (e.g. "At times, the future seems unclear to me"). Participants were asked to provide their ratings using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2 Work Engagement ($\alpha = .95$)

Work engagement was measured by the Utrecht Work Engagement Scale (Schaufeli and Bakker 2003), which has three subscales: vigor, dedication, and absorption. Vigor (six items; e.g., "At my work, I always persevere, even when things do not go well") is defined as having energy and mental resilience while working. Dedication (five items; e.g., "I am proud of the work that I do.") is defined as a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption (six items; e.g., "When I am working, I forget everything else around me") is defined as being fully concentrated and happily engrossed in one's work. Item responses were on a 5-point Likert scale ranging from 1 (Never) to 5 (Always). Subscales were highly correlated in our sample ($r_m = .77$; $SD = .02$). For this study, the composite engagement score was used as recommended by Schaufeli et al. (2006).

3.3 Work Self-efficacy Beliefs ($\alpha = .87$)

The Work Self-Efficacy Scale (Borgogni et al. 2001) includes 5 items (i.e. "Managing the emergencies and contingencies that may occur in my work" "Make the best use of resources I have"). For each item, participants were asked to evaluate how capable they felt in carrying out the described action or behavior on a Likert scale, from 1 (Not well at all) to 5 (Very well).

3.4 Job Performance

A multisource performance appraisal rating system was used to assess job performance (Oh and Berry 2009). Three supervisors, each with different responsibilities with respect to the participants, rated each participant's job performance through the company's performance appraisal tool. This instrument addressed four aspects of performance (rated from 1 = does not meet expectation to 5 = outstanding), namely, "discipline" (e.g. "meets the norms of the workplace"), "work quantity" (e.g. "completes work on schedule"), "work quality" (e.g. "performs his/her accountabilities with skill and knowledge"), and "teamwork" (e.g. "willing to work harmoniously with others"). As this particular company has implemented a multifaceted evaluation of worker's performance, three evaluations of the same individual were available, given by three different supervisors. A principal factor analysis (PFA) was conducted separately for each supervisor. The ratio of first-to-second eigenvalue was greater than 3 for each informant, supporting a one-factor solution (Hattie 1985). The first factor explained between 45 % (supervisor 1) and 57 % (supervisor 2) of the total variance. Cronbach's alpha of the composite measures were .80 (informant 1), .78 (informant 2), and .83 (informant 3). To estimate the degree of agreement among the three supervisors, the intraclass correlation coefficient (ICC) was calculated. Agreement among informants was found to be from moderate-to-high (the average ICC ranged from .73 to .89). In light of this, each behavioral domain was averaged across the three informants, and an overall summative score was used in all subsequent analyses.

3.5 Statistical Analyses

We tested our hypotheses following two successive but linked steps. In order to test Hypothesis 1 we examined the mediating role of work engagement on the relation between POS and job performance. We present results as obtained by the stepwise procedure introduced by Baron and Kenny (1986). However, our mediation analyses focused on the significance of the indirect effect of P-OR on job performance through work engagement, as evaluated by the Sobel (1982) test. Preacher and Hayes (2004) argued that this approach is more powerful than the stepwise procedure proposed by Baron and Kenny (1986) since it directly addresses mediation (see also Kenny et al. 1998, and MacKinnon et al. 2002). All mediated effects were further evaluated using the procedures outlined by MacKinnon et al. (2002). To this aim, we followed the method of bootstrapped confidence intervals (BCI 95 %) recommended by MacKinnon et al. (2002) to formally test mediation (Mackinnon et al. 2004). All analyses were conducted using the SOBEL macro provided by Preacher and Hayes (2004) that facilitates the estimation of the significance of indirect effects, using both the Sobel test and the recommended bootstrap approach. This macro also incorporates the stepwise procedure described by Baron and Kenny (1986).

As a second step, we tested if, in accordance to our second hypothesis, self-efficacy beliefs moderated the relation between work engagement and job performance. This hypothesis is confirmed if the strength of the hypothesized indirect effect is conditional on the value of the moderator. In this model, we also tested the moderation of work self-efficacy beliefs on the direct relation between P-OR and job performance (third hypothesis). To integrate the mediation and moderation hypotheses, we used procedures devised by Preacher et al. (2007), which require the empirical test of two models. The first model, also called the mediator variable model, investigates whether there is evidence of a significant moderation of the relation between P-OR (i.e., the independent variable) and work engagement (i.e., the mediating variable). The second model investigates the statistical significance of the moderation of the mediational relationship (i.e., the indirect effect of P-OR on job performance operated through work engagement) operated by self-efficacy beliefs (fourth hypothesis). This final moderated mediation model is presented in Fig. 1. All models were tested using the SPSS macro made available by Preacher et al. (2007), which implements the recommended bootstrapping methods and includes statistical tests to probe the significance of conditional indirect effects at different values of the moderator variable.

In order to eliminate non-essential multicollinearity and improve the interpretation of our results, first-order terms were centered around the sample's grand mean before computing the cross-product interaction terms (Aiken and West 1991). Finally, the squared semi-partial correlations were estimated in order to ascertain the unique contribution of each term in the model to each criterion variables. Squared semi-partial correlations reflect the percentage of unique variance in the criterion variable that is predicted by each term when the contributions of the other terms included in the model have been partialled out.

3.6 Preliminary Analyses

Although, conceptually speaking P-OR, work engagement and work self-efficacy beliefs can be differentiated, it is nonetheless informative to investigate the degree of their empirical overlap. To this aim, a PFA with Promax rotation was performed at each assessment time. According to the scree-plots, the analysis yielded a three-factor structure corresponding to the hypothesized three domains of P-OR, work engagement and work

self-efficacy beliefs. The actual item loadings on the intended factors ranged from .31 to .87 (M = .66; SD = .13), whereas the secondary loading varied from .01 to .25 (M = .05; SD = .17). Factor correlations ranged from .53 (P-OR with work engagement) to .46 (P-OR with self-efficacy). These analyses supported (1) the factorial validity of the three measures, (2) the empirical distinctiveness of P-OR, work engagement, and work self-efficacy beliefs, and (3) the lack of empirical overlap among items measuring P-OR, work engagement and work self-efficacy beliefs, as revealed by the low secondary loadings.

4 Results

As presented in Table 1, all variable were correlated in the expected direction. Table 2 (top part) presents the results of the mediation analysis. P-OR was positively associated with job performance, as indicated by the significant regression coefficient. Likewise, work engagement and work self-efficacy beliefs were significantly related to job performance, and work self-efficacy beliefs was significantly associated to work engagement. The bivariate relations of: (1) P-OR with job performance and (2) work engagement with job performance, proved to also to hold when the influence of both work engagement and P-OR was controlled for. These results satisfied all of Baron and Kenny's criteria for partial mediation, and thus provided evidence that work engagement partially mediates the effect of P-OR on job performance, supporting Hypothesis 1. Further confirming this result, we found a significant indirect effect of P-OR on job performance (.11; $z = 2.60$, $p < .05$; BCI 95 % = .03, .22), indicating that about 38 % of the effect of P-OR on job performance is mediated through work engagement.

The bottom part of Table 2 presents the results for Hypotheses 2, 3 and 4. In the first model tested (i.e., Model 1, Table 2), the moderation of work self-efficacy beliefs on the relation between P-OR and work engagement was found to be nonsignificant. We further predicted that the relation between work engagement and job performance would be stronger for employees with higher work self-efficacy beliefs than for employees low in self-efficacy beliefs. Results indicated that the cross-product term between work engagement and work self-efficacy beliefs on job performance was significant (i.e. Model 2, Table 2). In order to completely support Hypothesis 2, the nature of this interaction should be in accordance with the hypothesized pattern. Therefore, we applied conventional procedures for computing simple slopes at one standard deviation above and below the mean of the scores on work self-efficacy beliefs.

In support of Hypothesis 2, the relation (i.e., the slope) between work engagement and job performance was significant and high for employees high (i.e. +1 SD) in self-efficacy beliefs (simple slope $B = .40$, $t = 3.63$, $p = .00$), and significant but medium in size for employees with mean levels of work self-efficacy beliefs (simple slope $B = .22$, $t = 2.48$, $p = .01$). In contrast, this relation was not significant for employees low in work self-efficacy beliefs (simple slope $B = .13$, $t = .29$, $p = .77$).

With respect to Hypothesis 3, results indicated that the cross-product term of P-OR and work self-efficacy beliefs on job performance was significant (Table 2). Furthermore, results from simple slope analyses showed that the residual direct effects were high and significant at +1 SD above the mean of work-self-efficacy beliefs (.40, $t = 3.63$, $p < .01$) and at mean values of work self-efficacy beliefs (.22, t = 2.48, $p < .05$), but were non-significant at −1 SD below the mean (.12, $z = .29$, $p = .77$).

Rather than limiting our consideration to a restricted number of arbitrary conditional values of work self-efficacy beliefs, we moved forward to investigate all values of work

Table 1 Means, standard deviation, and correlations among positive orientation, work self-efficacy, work engagement and job performance

	Mean	SD	(1)	(2)	(3)	(4)
1. Positive orientation	3.93	.72	1.00			
2. Work self-efficacy	4.05	.58	.59**	1.00		
3. Work engagement	3.72	1.21	.51**	.43**	1.00	
4. Job performance	3.01	1.20	.30**	.12*	.32**	1.00

* $p < .05$

** $p < .01$

self-efficacy for which the simple slope of job performance regressed on P-OR was significant (Johnson and Neyman 1936; Preacher et al. 2007). Figure 2 provides a plot of the direct effect of P-OR on job performance versus the moderator (work self-efficacy beliefs), with confidence bands. The horizontal line denotes an indirect effect of zero. The vertical line represents the boundary of the region of significance. According t the plot, the direct effect of P-OR on job performance is significant (<.05) for all standardized values of work self-efficacy above -.20.

To investigate the moderation of work self-efficacy beliefs on the indirect relation between P-OR and job performance via work engagement, we investigated the significance of the conditional indirect effect at different values of work self-efficacy beliefs. Results showed that these conditional indirect effects were high and significant at +1 SD above the mean of work-self-efficacy beliefs (.18, $t = 2.77$, $p < .01$; BCI 95 % = .08, .38) and at mean values of work self-efficacy beliefs (.11, $z = 2.81$, $p < .01$; BCI 95 % = .04, .23), but were nonsignificant at −1 SD below the mean (.04, $z = .78$, $p = .44$; BCI 95 % = −.04, .15). Thus, Hypothesis 4 was supported. Indeed, the indirect and positive effect of POS on job performance through work engagement was observed only when levels of work self-efficacy beliefs were from moderate to high, but not when work self-efficacy was low. Figure 3 provides a plot of the indirect effects of P-OR on job performance at different levels of the moderator (work self-efficacy beliefs). According t the plot, the indirect effect was found to be significant (<.05) for any standardized value of work self-efficacy above −.47.

4.1 Alternative Models[1]

With regard to the plausibility of alternative models, it is important to point out that job performance was measured 12 months after the personality measures. Thus, an opposite pattern of direct and indirect influence of job performance on P-OR, work engagement, or work self-efficacy beliefs seems unlikely. The fact that work self-efficacy beliefs did not moderate the relationship between P-OR and work engagement, provides, in our opinion, further support for the proposed causal sequence: The causal chain cannot be simply reversed. It is likely that, in the long run, job performance promotes both an individual's work engagement and an individual's confidence in his/her own competencies. Using the

[1] In a preliminary set of analyses, the effect of several covariates (age, marital status, and job tenure) was investigated. Non-significant correlations were found among age, job tenure, and any of the major variable included in the study. Furthermore, including these variables in the moderated-mediational model did not alter the obtained results.

Table 2 Least square regression results for the mediation analyses

	b	*t*	sr^2
Positive orientation → job performance	.30	4.34**	.09
Positive orientation → work engagement	.52	8.42**	.20
Work engagement → job performance	.32	4.60**	.10
Work engagement → job performance | positive Orientation	.22	2.75**	.04
Positive orientation → job performance | work engagement	.19	2.33*	.03

	Model 1 (criterion work engagement)			Model 2 (criterion job performance)		
	B	*t*	sr^2	*b*	*t*	sr^2
Least square regression estimates for the moderated mediation models						
Positive orientation	.42	5.35**	.12	.29*	3.19**	.05
Work self-efficacy	.18	2.21*	.04	.22	2.48*	.03
Positive orientation × work self-efficacy	.01	.05	.01	.18	2.14*	.02
Work engagement	–		–	.27	3.67**	.06
Work engagement × work self-efficacy	–		–	.18	2.21*	.03

→ "predicting"; | = "controlling for". Model 1 is also called the "Mediator variable model", whereas Model 2 is usually referenced as the "Dependent variable model". sr^2 = squared semi-partial correlation coefficient * $p < .05$; ** $p < .01$

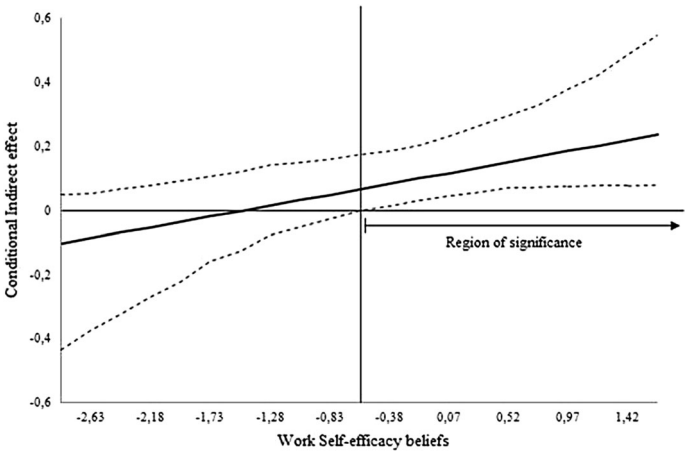

Fig. 2 Graphical representation of simple slope of the effect of P-OR on Job performance at different values of the moderator (work self-efficacy beliefs) with their corresponding confidence band. The *horizontal line* denotes a simple slope of zero. The *vertical line* represent the boundary of the region of significance

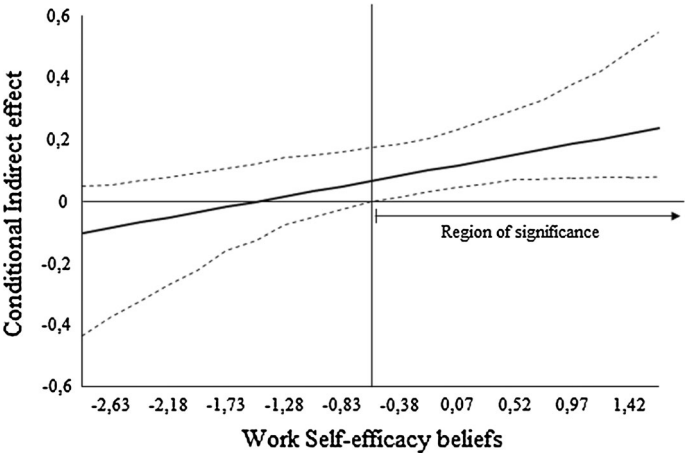

Fig. 3 Graphical representation of conditional indirect effects of positive orientation on job performance through job engagement (the mediator) at *different values* of the moderator (work self-efficacy beliefs) along with their corresponding confidence band. The *horizontal line* denotes an indirect effect of zero. The *vertical line* represent the boundary of the region of significance

present data, however, such a recursive model cannot be tested, and our study thus provides tentative evidence for the flow of causality suggested above.

5 Discussion

During the past decades emphasis has been placed on investigating, clarifying, and ultimately, understanding the relationship between human strengths and positive traits, job

performance, and well-being at work (Cameron and Caza 2004; Luthans 2002; Nelson and Cooper 2007; Wright 2003). Indeed, organizations are increasingly recognizing and appreciating the value of employee's characteristics and qualities as crucial elements for competitive advantage in nowadays competitive markets (Luthans and Youssef 2004). This is reflected in the novel orientation of organizational science in promoting empirical studies aimed to identify ways able to lead individuals to fully express their potential at work (Luthans 2002). This study contributed to the literature by investigating the psychological mechanisms through which a positive psychological trait such as P-OR might lead to improved job performance. In general, our results supported a partially moderated mediation model, demonstrating that the magnitude of the indirect effect of P-OR on job performance through work engagement, was contingent upon the employee's level of work self-efficacy beliefs. Whereas P-OR showed a significant residual direct effect on job performance, this effect was moderated by work self-efficacy beliefs. Next, we will discuss the results we believe have the potential to significantly contribute to the current literature.

First, our findings corroborate previous claims that a pervasive positive stance towards one's experiences is associated with success at work (Alessandri et al. 2012c; Antonovsky 1979; Hobfoll 1989). As it stands, our results are in line with Antonovsky's (1979) notions about the value of an individual's general orientation towards the world. Furthermore, they are also in accordance with predictions from the COR model proposed by Hobfoll (1989, 1998) in order to explain the individuals' adaptation to stress. The COR model postulates that one's positive personal orientation toward the world is the *key* resource sustaining individual success at work. Individuals who tend to perceive events as predictable and generally occurring in their favor, are better equipped to cope with stress and have more resources to invest at work (see Hobfoll 1989, p. 517). It may be that the increased availability of resources explains the higher work-related success achieved by positive individuals in comparison to individuals who hold a less rosy perception of reality.

Second, we further corroborated the significant and positive relationship between work engagement and job performance (Demerouti and Cropanzano 2010). Of interest, our study included ratings obtained from several supervisors, which represents a superior indicator of job performance compared to the self-ratings used in the majority of the studies on this topic. For the present workers, obtaining better supervisor ratings opens the way to career success (i.e., higher salary, better job positions): indeed these are the indicators routinely used by internal HR-evaluation systems. The fact that work engagement revealed a high zero-order-correlation with our objective index of job performance and partially mediated the impact of P-OR, further supports the value of the construct as a proxy indicator of success at work (Bakker 2011).

Third, we hypothesized and found a significant and direct relationship between P-OR and work engagement. This result represents an important extension of prior findings (Alessandri et al. 2012c), in that the present research is the first to link P-OR with a proximal indicator of work success (i.e. work engagement predicts supervisor-rated performance; Halbesleben and Wheeler 2008) and work-related well-being (i.e., work engagement; Leiter and Bakker 2010). More generally, we should acknowledge that several researchers have demonstrated that positive psychological resources (such as self-esteem, life satisfaction and optimism) promote individuals' engagement in their daily work activities (see Bakker 2011 for a review). For example, from a COR perspective, positive individuals are expected to demonstrate more engagement in their work because of a higher sense of control and thanks to an increased resistance against stress (Antonovsky 1979; Hobfoll 1989). By focusing on the positive side of experience, P-OR enables individuals to cope with adversities, failures, and defeats. Likely, it is the ability to nurture

hope, in the face of severe hardships, that is involved in the high and continued levels of engagement that positive individuals reveal at work. However, it is through engagement that individuals' P-OR translates into successful organizational behaviors. This virtuous loop is further strengthened by an adequate sense of competence, and ultimately, efficacy. None of the nodes in this circuit, considered in isolation, is an effective predictor of success. In conclusion, the whole is greater than the sum of its parts.

The gatekeeping role of self-efficacy beliefs deserves more attention, as it probably is the most intriguing and novel finding that emerged from this study. In our moderated mediational model, levels of self-efficacy beliefs appeared to determine the significance of the effects of both P-OR (direct and indirect) and work engagement (direct) on job performance.

With regard to the moderation of the direct relationship between P-OR and job performance, it has been speculated that agentic self-efficacy beliefs may represent the cornerstone which turns individuals' P-OR into appropriate behaviors leading to achievement and success (Caprara et al. 2010a). Individuals holding more positive expectations towards one's self and future achievements, are more likely to perform better if they perceive to have the necessary abilities to accomplish work-related tasks. In contrast, a lack of confidence in one's own capacities would undermine the behavioral expression of this psychological capital, in terms of resources and motivation.

Whereas our model does apply to a specific sample of individuals in a specific profession, we have no doubt that there is much to be gained by the field, from an extensive investigation of the moderating role of self-efficacy beliefs. For example, self-efficacy can help us understand why broad personality traits demonstrate such impressive predictive validity for job performance (Roberts et al. 2007). Assuming such a perspective, one can reframe our model in more general terms by postulating that the typical causal pathway observed between broad-level traits (such as P-OR) and a specific measure of job performance, rests upon the possession of a certain degree of work self-efficacy. Of course, our reasoning does not exclude the fact that self-efficacy beliefs may indeed acts as a mediating variable in certain situations and for certain traits (Caprara et al. 2012a; Chen et al. 2001; Martocchio and Judge 1997). Instead, we believe that conceiving self-efficacy beliefs as lower-level, narrow, and contextualized cognitive structures informing individuals on their effectiveness at work, helps the understanding of how basic, high level, and broad individual characteristics translate into specific behaviors.

With regard to the relationship between work engagement and work self-efficacy beliefs, we have proposed that a strong sense of efficacy is a crucial motivational factor in ensuring the effectiveness of continued efforts and commitment to achieve a goal. As our data seem to suggest, a weak sense of efficacy compromises the transformation of strivings into desired achievements. Loosely speaking, for our security agents, P-OR and work engagement are both 'necessary conditions', although not in themselves 'sufficient conditions' for good job performance. Instead, having at least a moderate level of confidence in one's own abilities, is sufficient and necessary to performing better when levels of engagement are adequate.

5.1 Study Limitations

The present findings converge with previous results (Alessandri et al. 2012c; Caprara et al. 2012b, c) by pointing to P-OR as a basic predisposition that may significantly account for individuals' adjustment and achievement across different domains of functioning, including the workplace. However, one should be aware of the limitations of the current

study. The strengths of this study include its two-wave nature, the inter-subjective assessment of performance, and the temporal separation between predictors and job performance. However, more time points would have allowed a closer examination of the causal (and reciprocal) relations among P-OR, work engagement, self-efficacy, and job performance over time. Indeed, it seems likely that a reciprocal relation may in fact link P-OR and job performance. P-OR may represent the dispositional basis of one's achievement at work. Yet, positive outcomes, in the form of high job performance, may in turn reinforce the individual's positive stance towards reality and finally contribute to foster P-OR. Future studies should also test the validity of our model on samples of workers varying in gender and type of occupation. Opportunities and constraints offered by the work context were not considered, our focus was instead limited to individual level variables only. The fact that the study involved mostly self-reported data may be viewed as a major limitation despite the possible claims that no one can report on P-OR, level of engagement, and self-efficacy better than the participants themselves. Given that one cannot exclude the influence of either a self-serving bias nor social desirability when reporting socially-valued aspects such as self-worth and self-efficacy, other informants might be crucial sources of supplementary information. Although no previous study has, to our knowledge, involved peer measures of P-OR, work enagement and self-efficacy, obtaining such kind of measures would prove hard in real world settings. Another limitation is that we tested our model of a sample of only man, and future studies will be necessary to investigate if these relations are likely to hold also on a sample comprising woman. Notwithstanding these limitations, we are confident that our data has the potential to contribute to the existing literature on the relationship between individuals' positive characteristics and job success.

5.2 Practical Implications

From a practical point of view, the main lesson to be learned from the current data is that self-efficacy is crucial to improve job performance when P-OR and work engagement are high. Indeed, our findings demonstrate the presence of a boundary condition (i.e. the possession of an optimal level of work self-efficacy beliefs), that influences the impact of P-OR and work engagement on job performance. In sum, considering the interactive effect of P-OR and self-efficacy, and of work engagement and self-efficacy, might be more important than limiting ourselves to the consideration of their principal effects. Indeed, very positive (but not extreme) views of oneself and elevated levels of engagement, rest upon the possession of an adequate level of self-perceived competence, or ultimately, of efficacy. Essentially, a medium-to-high sense of self-efficacy is necessary to turn personality potentials (like P-OR) and persistent effort (work engagement) into successful behaviors. In contrast, lack of self-efficacy seems to be the reason why positive and engaged workers often experience failures at work.

On the basis of these findings, one would recommend that interventions start with evaluating and eventually increasing individuals self-efficacy beliefs. After that, and only then, one may begin with a program aimed to increase engagement and motivation (P-OR is indeed resistant to change, see Caprara et al. 2010a). Otherwise, one would incur the risk of having high potential individuals, but with a dramatically limited capacity to perform better than prior to the intervention. The key role assigned to self-efficacy beliefs in our model is good news for practical interventions since social cognitive theory includes well-validated strategies useful to promoting self-efficacy beliefs through persuasion, modeling and mastery experiences (see Bandura 1986). One way to improve security agents self-

efficacy beliefs might be, for example, the assignment of a mentor who exemplifies self-efficacious behaviors and thus may act as a role model (i.e., vicarious learning). Additionally, and most importantly, it seems useful to implement specific in-service training programs aimed to offer professional development opportunities for all employees (given the absence of any specific training program at the present in this firm). Drawing from our model, these programs should be devoted to offer a systematic self-management training and, in particular, to encourage employees to set realistic personal goals, delineate clear priorities, to be well-organized and improve their time-management skills. It is finally important that the management structure uses appropriate incentives to foster employee's self-confidence. As shown in several empirical studies, when managerial confidence increases, so does employee performance (Bandura 1997). In conclusion, present findings offer a theoretical contribution, in terms of an empirically validated conceptual model, able to link basic predisposition to job performance, through the concerted actions of mediating (work engagement) and moderating (self-efficacy) psychological mechanisms, like self-efficacy and work engagement. Since the advancement of a scientific discipline crucially depend on the adequacy of its theoretical corpus, we believe that our study have the potential to inspire future studies in the field.

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