

Personality and Job Engagement

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Abstract

The affective-motivational state of job engagement has been shown to differ between jobs with different characteristics, but its possible links with workers' personal attributes have less often been studied. Engagement was predicted to be a primary function of personality factors and sub-factors which match its affective and motivational elements, namely Emotional Stability and more energized forms of Extraversion and Conscientiousness. Predictions were confirmed in correlational and regression analyses across three studies. Theoretical frameworks in this area should extend to personal characteristics in addition to covering job content, and practical benefits can follow from engagement-relevant staff selection and development as well as from appropriate job design.

In studying workers' well-being, attention has traditionally been focused on the construct of job satisfaction, a relatively passive experience of low-to-moderate activation. Recently, this type of well-being has been complemented by the more energized form referred to as job engagement. Engaged workers feel positively about their situation, but beyond mere satisfaction they are motivated to expend energy on a task. Thus Leiter and Bakker (2010, p. 1) defined job engagement as "a positive, fulfilling, affective-motivational state of work-related well-being", and the review by Bakker, Albrecht, and Leiter (2011) identified a "growing consensus that engagement can be defined in terms of high levels of energy and high levels of involvement in work" (p. 22). See also, for instance, Inceoglu and Fleck (2010), Kahn (1990), Rich, Lepine, and Crawford (2010), and Schaufeli, Salanova, González-Roma, and Bakker (2002).

It is widely agreed that engagement arises from both personal and environmental sources (Macey & Schneider, 2008). However, theoretical discussions and empirical investigations have so far emphasized one of those, mainly examining engagement as a response to characteristics of the job. Thus Schaufeli and Bakker (2004), Shirom (2010) and others (not denying the role of within-person factors) have investigated key job features such as autonomy, demands, conflicts and good relations with other people, and Rich, Lepine, and Crawford (2010) developed and tested a model incorporating organizational support.

However, there is also a need to develop understanding of engagement's bases within individuals themselves. More engaged and less engaged workers are likely to differ in certain traits as well as in the nature of their jobs, but few studies or models of possible personality contributors to job engagement have been published. The meta-analysis by Halbesleben (2010) identified a small number of reports about optimism and self-efficacy (e.g., Xanthopoulou, Bakker, Demerouti, and Schaufeli, 2009a), but comprehensive information about a wider range of traits appears to be lacking. For instance, within the widely-applied Big Five taxonomy (Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness) it has yet to be determined which factors are or are not relevant to engagement. Langelaan, Bakker, Van Doornen and Schaufeli (2006) considered relationships with only two of those, Neuroticism and Extraversion, but in a five-factor comparison

controlling for some job variables Kim, Shin and Swanger (2009) found that Conscientiousness alone was significant. Additional information and theorizing are required.

First, we need to learn more about all five factors' possible associations with workers' engagement; and, second, research and theories should additionally consider possible differences between elements within certain of those factors (e.g., Tett, Steele, & Beauregard, 2003). For example, studies have distinguished empirically and conceptually between two sub-factors of Conscientiousness – active industriousness sometimes referred to as Achievement Orientation, and diligent, rule-following Dependability with its emphasis on orderly, hard-working reliability (e.g., Roberts, Chernyshenko, Stark, & Goldberg, 2005). Similarly, distinguishable facets of Extraversion have been identified as Affiliation (strongly desiring social interaction) and Social Potency (proactivity in influencing other people) (e.g., DeYoung, Quilty, & Peterson, 2007).

Given that job engagement is defined as relatively activated and energized, it can be predicted that aspects of personality that are themselves more activated and energized will be reflected in engagement. Thus, in addition to possible associations with the broad factors of Neuroticism and overall Extraversion (as identified earlier), stronger links with job engagement are predicted for the more energized components of Extraversion and Conscientiousness, namely Social Potency and Achievement Orientation.

The engagement studies reported here are unique in distinguishing between components of those kinds within a comprehensive assessment of all five factors of personality. In addition to sub-factor predictions (above), engagement is expected to be primarily associated with three of the Big Five – Emotional Stability (reverse-scored Neuroticism) and Extraversion, as found by Langelaan et al. (2006), and (in view of its motivated nature and findings by Kim et al., 2009) with Conscientiousness.

Method

Those predictions were tested through three studies on an international website offering free advice to individuals about assessment processes for staff recruitment and development. Respondents (N 's = 393, 129 and 219) were from several countries, with largest numbers from Australia, India, the United Kingdom and the United States. In order to ensure a common meaning for questionnaire items and responses, analyses were restricted to responses from employed individuals who indicated that English was their first language. In Studies 1, 2 and 3 respectively mean ages were 34, 37 and 36 years, and 49%, 45% and 50% were female. Most (68%, 74% and 72%) had received a college or university education. Principal business areas were education, financial services, manufacturing and the public sector.

Consistent with the definitional consensus identified by Bakker et al. (2011) (see above), a six-item scale of job engagement examined subjective engagement by combining job-related energy and absorption. Illustrative items are “I feel energized when working” and “I get absorbed in my job”, and responses were in terms of the past two months on a nine-point scale from *never* to *always*. A single overall factor was present, and *alpha* coefficients of internal reliability were .91, .85 and .90 respectively for the three samples. The scale has clear content validity and conceptual similarity to other engagement instruments, and positive construct and criterion validities have been reported by Ungemah (2010) and Warr and Inceoglu (2011) in respect of job satisfaction, work motivation and self-rated performance.

After completion of the engagement items, participants were offered the option to complete an established personality inventory for which individual feedback would be provided. From the full set of respondents in each study, the samples described above chose also to complete the inventory. This was the normative version of the SHL Occupational Personality Questionnaire (OPQ32n), which describes 32 aspects of an individual's preferred style of thinking, feeling and behaving at work. Responses are on a five-point scale of disagreement or agreement with 230 self-descriptive statements. The inventory's theoretical background, technical details, and high reliability and validity have been described by SHL (2006, available online). Average alpha coefficients were .83, .84 and .82 in Studies 1 to 3 respectively.

The OPQ provides scores on each of its studied traits, and in addition sub-sets of scales permit assessment of the conventional Big Five factors of personality. Based on the conceptual content of items within each scale and on analyses of interrelationships within several large data-sets, the inventory designers have previously defined the Big Five factors (see SHL, 2006). (These were perfectly replicated in the present data.) In addition, the two principal sub-factors of Extraversion and of Conscientiousness (see above) were here analyzed separately. The composition of each factor and sub-factor is illustrated by the scale titles in Table 2.

Results

Bivariate correlations of job engagement with factors and sub-factors of the Big Five are shown in the left-hand columns of Table 1, followed by average values weighted by the number of cases in each study. Initial values in each column control for age, gender and education level, and in brackets are correlations without those controls. (The control variables were correlated with engagement .09, .01 and .05 respectively in the combined sample.) It can be seen from the upper section of the table that the predicted primary associations yielded effect sizes defined as "medium" in the framework proposed by Cohen (1992). Mean sample-size weighted controlled correlations of job engagement with Emotional Stability, Extraversion and Conscientiousness were .38, .33, and .40, compared to much reduced links with the other two factors (averaging .19). In addition, the Achievement Orientation component of Conscientiousness was more strongly linked to engagement (mean controlled $r = .41$) than was the sub-factor of Dependability (mean $r = .30$); and within Extraversion the facet of Social Potency was more important than was Affiliation (mean sample-size weighted controlled r 's of .36 and .27).

Patterns for the constituent scales of each factor are shown in Table 2. For instance, OPQ Optimism (mean controlled $r = .35$) is the primary trait within Emotional Stability's overall link to job engagement; and, although traits within the factor of Openness to Experience were generally unrelated to engagement, OPQ Innovative (e.g., finding it easy to generate new ideas) was considerably more predictive than others. Also unrelated to job engagement were the seven OPQ scales omitted from these analyses as being outside the Big Five framework (mean controlled $r = .15$).

Personality traits are of course often intercorrelated, so that r -values in Table 1 are not independent of each other. In order to identify the unique contribution of each factor or sub-factor, multivariate examination is required. A large-sample multiple regression analysis was made possible by combining the three studies' OPQ and job-engagement data ($N = 741$). Findings are shown on the right-hand side of Table 1, with and without the demographic

controls. The latter were found to increase the variance accounted for by a small amount, with a significant positive contribution from age in both analyses.

For the Big Five factors, it can be seen that Emotional Stability and Conscientiousness emerged as the only two unique predictors of job engagement. In that multivariate analysis, the other three factors contributed almost nothing to job engagement, despite some moderate bivariate associations. The seven-factor regression, incorporating sub-factors within Extraversion and Conscientiousness, indicates that (in conjunction with Emotional Stability) the only significant independent factors were Social Potency within Extraversion ($p < .001$ and $p < .01$ without and with controls) and the Achievement Orientation facet of Conscientiousness ($p < .001$ in both cases).

Discussion

These findings confirm that shorter-term job engagement is indeed a significant function of longer-term attributes of personality, and point to particular personality factors and traits that are either more important or less important in that respect. Of the Big Five factors, Emotional Stability and Conscientiousness independently accounted for most of the variance in job engagement. In addition, it was the more activated sub-factors within Extraversion and Conscientiousness that were important. Workers who are engaged in their jobs tended in dispositional terms to be emotionally stable, socially proactive, and achievement oriented.

This pattern, demonstrated in several hundred workers, has important implications for both research and organizational practice. It is known from other studies (e.g., Rich et al., 2010; Shirom, 2010) that job engagement is significantly associated with certain job and organizational characteristics, so that theoretical models of workers' well-being and performance certainly need to embrace environmental features. But those models will be incomplete and potentially misleading if they exclude individuals' dispositional features as identified here.

Given that job engagement is associated with identifiable personality features as well as with certain job characteristics, it is important to consider their possible mode of combination. In respect of other forms of well-being, research has pointed to (but rarely examined in detail) the combined impact of both environmental and personality features (e.g., Warr, 2011). However, almost no research has addressed their joint operation in relation to job engagement, instead examining only one of the two sets of variable. Four questions now deserve particular attention.

First, are certain personality traits independently associated with job engagement over and above job features? Kim et al. (2009) found that some of the Big Five traits made significant independent contributions to engagement in addition to certain environmental features (job position, skill variety and customer aggression), but that the measured job factors were primary. Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009b) reported the same pattern in analyses which measured job features through a combination of autonomy, social support, coaching, feedback and development opportunities, and personal features in terms of combined optimism, self-efficacy and organization-based self-esteem.

It is conceptually and methodologically difficult to specify in general terms the relative contribution of any two kinds of factor, since results depend on the characteristics of variables included in each set. For example, comparing many influential features of one kind against fewer or less influential features of the other kind would necessarily yield an

imbalanced outcome. In order to reach a general conclusion about the relative weight of job and personality variables in respect of engagement, it will be necessary to conduct a number of studies with different combinations of elements.

Second, might job and personality variables *interact* with each other, such that personality traits moderate the association between particular job features and worker engagement? For example, is the opportunity for personal discretion in a job more strongly correlated with engagement for individuals high in conscientiousness versus those who are less conscientiousness? This second issue also presents empirical difficulties, since it is analytically essential to locate adequately wide between-respondent variance and to equate that variance between the two types of variable. However, in order to enhance models of worker engagement possible moderation needs to be examined.

A third important issue concerns research into what is often referred to as “personality-environment fit” (e.g., Ostroff & Judge, 2007). Many studies have examined the statistical impact of discrepancies between the actual level of a job feature and a worker’s preferred level, finding that a greater discrepancy between wanted and actual levels is associated with lower job satisfaction. However, in respect of more energized well-being in the form of job engagement it appears that greater want-actual discrepancy is instead linked to higher rather than lower scores, as engaged individuals value raised levels of many job features (Warr & Inceoglu, 2011). We now need to learn whether this person-job pattern in relation to engagement occurs over and above the impact of personality. For instance, it may be that a positive want-actual discrepancy reflects greater achievement-oriented conscientiousness, so that measured poor-fit effects in respect of job engagement in fact arise from dispositional traits.

A fourth personality-and-job issue in need of examination concerns change across time. Job redesign modifications that increase the level of key features are likely to enhance workers’ engagement, although experimental research to examine that possibility is so far lacking. However, effects of that kind could be significantly constrained by personality effects. In respect of other forms of well-being it is known that, although environmental changes can modify well-being, individuals are likely to return to or towards their personality-linked baseline (e.g., Warr, 2007, Chapter 9), and such an adaptation process can be envisaged in respect of job engagement.

In practical terms, the paper has emphasized that engagement within an organization or work-group is in part a function of the characteristics of employees selected for membership. Thus, in addition to possible enhancement of engagement from improved job design, typical engagement levels can be increased through personnel selection procedures that focus on the identification of emotional stability and activated forms of extraversion and conscientiousness. In addition, information about those traits can be valuable in the development of job engagement through person-focused task assignments and the setting of targets that build on specific individuals’ own strengths and energies.

References

- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, 20, 4-28.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.

- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, *93*, 880-896.
- Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker and M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and practice* (pp. 102-117). London and New York: Psychology Press.
- Inceoglu, I., & Fleck, S. (2010). Engagement as a motivational construct. In S. Albrecht (Ed.), *The handbook of employee engagement: Models, measures, and practices* (pp. 74-86). Cheltenham, UK: Edward Elgar.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692-724.
- Kim, H. J., Shin, K. H., & Swanger, N. (2009). Burnout and engagement: A comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, *28*, 96-104.
- Langelaan, S., Bakker, A. B., van Doornen, L. J. P., & Schaufeli, W. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, *40*, 521-532.
- Leiter, M. P., & Bakker, A. B. (2010). Work engagement: An introduction. In A. B. Bakker and M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and practice* (pp. 1-9). London and New York: Psychology Press.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, *1*, 3-30.
- Ostroff, C., & Judge, T. A. (2007) (Eds.). *Perspectives on organizational fit*. New York: Erlbaum/Routledge.
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*, 617-635.
- Roberts, B. W., Chernyshenko, O. S., Stark, S., & Goldberg, L. R. (2005). The structure of conscientiousness: An empirical investigation based on seven major personality questionnaires. *Personnel Psychology*, *58*, 103-139.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, *25*, 293-315.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory analytic approach. *Journal of Happiness Studies*, *3*, 71-92.
- Shirom, A. (2010) Feeling energetic at work: On vigor's antecedents. In A. B. Bakker and M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and practice* (pp. 69-84). London and New York: Psychology Press.

- SHL (2006). *OPQ32 technical manual*. Thames Ditton, UK: SHL Group Ltd. Available online via <http://www.shl.com/OurScience/TechnicalInformation/Pages/TechnicalManualsandGuides.aspx>.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior*, 24, 335-356.
- Ungemah, J. M. (2010). Establishing and maintaining employee motivation from recruitment through induction, transition, and retirement. (Unpublished doctoral dissertation). London: London Metropolitan University.
- Warr, P. B. (2007). *Work, happiness, and unhappiness*. New York: Erlbaum/Routledge.
- Warr, P. B. (2011). Jobs and job-holders: Two sources of happiness and unhappiness. In K. Cameron and A. Caza (eds.), *Happiness and organizations*. Oxford: Oxford University Press.
- Warr, P. B., & Inceoglu, I. (2011). Job engagement, job satisfaction, and contrasting associations with person-job fit. *Journal of Occupational Health Psychology*, in press.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009a). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology*, 82, 183-200
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009b). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, 74, 235-244.

Table 1. *Job Engagement as a Function of Personality Factors and Sub-Factors: Correlations and Regression-Analysis Beta Coefficients Controlling for Age, Gender and Education Level (Uncontrolled Values in Brackets)*

Personality factor or sub-factor	Correlations (<i>r</i>)			Sample-size weighted mean	Beta weights, combined sample (<i>N</i> = 741)	
	Study 1 (<i>N</i> = 393)	Study 2 (<i>N</i> = 129)	Study 3 (<i>N</i> = 219)		Five-factor regression	Seven-factor regression
Emotional stability	.33 (.31)	.56 (.58)	.37 (.35)	.38 (.37)	.17 (.16)	.17 (.15)
Extraversion	.31 (.30)	.47 (.47)	.31 (.31)	.33 (.33)	.08 (.08)	
Openness to experience	.20 (.21)	.34 (.34)	.17 (.18)	.22 (.22)	.05 (.08)	.01 (.05)
Agreeableness	.15 (.16)	.15 (.17)	.18 (.19)	.16 (.17)	.07 (.09)	.09 (.12)
Conscientiousness	.41 (.38)	.43 (.44)	.38 (.35)	.40 (.38)	.28 (.26)	
Extraversion facets						
Affiliation	.25 (.24)	.42 (.41)	.23 (.22)	.27 (.26)		-.02 (-.03)
Social potency	.33 (.32)	.43 (.44)	.38 (.37)	.36 (.36)		.12 (.13)
Conscientiousness facets						
Achievement orientation	.42 (.40)	.51 (.48)	.39 (.35)	.41 (.40)		.25 (.23)
Dependability	.32 (.30)	.28 (.31)	.30 (.29)	.30 (.30)		.06 (.05)
Regression R-squared					.24 (.23)	.26 (.24)

Note: Values $p < .001$ are in bold font.

Table 2. *Correlations between Job Engagement and Personality Traits Controlling for Age, Gender and Education Level (Uncontrolled Values in Brackets)*

	Study 1 (N = 393)	Study 2 (N = 129)	Study 3 (N = 219)	Sample- size weighted mean
Emotional stability				
OPQ Relaxed	.13 (.11)	.43 (.46)	.31 (.29)	.24 (.22)
OPQ Worrying (R)	-.26 (-.24)	-.42 (-.46)	-.25 (-.23)	-.28 (-.27)
OPQ Tough minded	.27 (.23)	.32 (.33)	.28 (.24)	.28 (.25)
OPQ Optimistic	.31 (.30)	.49 (.51)	.34 (.34)	.35 (.35)
OPQ Socially confident	.26 (.26)	.41 (.44)	.22 (.23)	.27 (.28)
Extraversion: Affiliation				
OPQ Outgoing	.19 (.18)	.42 (.40)	.21 (.20)	.24 (.22)
OPQ Affiliative	.22 (.21)	.30 (.29)	.16 (.15)	.22 (.21)
OPQ Socially confident	.26 (.26)	.41 (.44)	.22 (.23)	.28 (.28)
OPQ Emotionally controlled (R)	-.05 (-.05)	-.18 (-.11)	-.10 (-.11)	-.09 (-.08)
Extraversion: Social potency				
OPQ Persuasive	.30 (.29)	.37 (.38)	.28 (.26)	.31 (.30)
OPQ Controlling	.27 (.25)	.34 (.37)	.38 (.38)	.31 (.31)
Openness to experience				
OPQ Conventional (R)	-.13 (-.14)	-.28 (-.27)	-.05 (-.06)	-.13 (-.14)
OPQ Conceptual	.07 (.07)	.25 (.27)	.03 (.03)	.09 (.09)
OPQ Innovative	.23 (.22)	.31 (.33)	.24 (.24)	.25 (.25)
OPQ Variety seeking	.13 (.14)	.17 (.16)	.11 (.12)	.13 (.14)
OPQ Behavioural	.15 (.15)	.19 (.15)	.16 (.16)	.16 (.15)
Agreeableness				
OPQ Caring	.19 (.20)	.42 (.41)	.23 (.23)	.24 (.24)
OPQ Trusting	.16 (.17)	.24 (.29)	.28 (.29)	.21 (.23)
OPQ Competitive (R)	.04 (.03)	.14 (.18)	.16 (.13)	.09 (.09)
OPQ Democratic	.20 (.19)	.13 (.13)	.21 (.20)	.19 (.18)
OPQ Independent minded (R)	.05 (.06)	.23 (.18)	-.03 (-.02)	.06 (.06)
Conscientiousness: Achievement orientation				
OPQ Vigorous	.39 (.39)	.43 (.41)	.32 (.31)	.38 (.37)
OPQ Achieving	.35 (.31)	.44 (.41)	.35 (.30)	.37 (.33)
Conscientiousness: Dependability				
OPQ Conscientious	.32 (.30)	.25 (.26)	.30 (.28)	.30 (.29)
OPQ Forward thinking	.25 (.24)	.29 (.33)	.21 (.20)	.25 (.24)
OPQ Detail conscious	.21 (.20)	.16 (.19)	.21 (.21)	.20 (.20)

Note: Values $p < .001$ are in bold font. (R) indicates reversed scoring in factor computation