

Running head: PERSONALITY AND ENGAGEMENT AT WORK

Personality and Engagement at Work: The Mediating Role of Psychological Meaningfulness

Stephen A. Woods PhD

&

Juilitta A. Sofat MSc

Aston Business School

Aston University

Address for Correspondence:

Dr Stephen A. Woods PhD

Work and Organizational Psychology Group

Aston Business School

Aston University

Aston Triangle

Birmingham

B4 7ET

s.a.woods@aston.ac.uk

Abstract

In this study, we examined the associations of personality traits of the Big Five model with work engagement, and tested a theoretical model in which these associations are mediated by the positive state of psychological meaningfulness (perceptions that work is valuable and meaningful). In a sample of 238 UK working adults, we found that the personality facets Assertiveness and Industriousness were the strongest predictors of work engagement, and that both exhibited direct and indirect effects, mediated by psychological meaningfulness. Neuroticism demonstrated a marginal indirect association with engagement, again mediated by psychological meaningfulness. Our findings offered good support for our model, explaining a pathway from personality traits to engagement. Practical implications for management are discussed.

How and why are personality traits related to work engagement? If we could answer this question, then we could better understand why some people are more likely than others to be engaged at work, and moreover, we could use this information to develop interventions to foster and promote work engagement. Engagement has emerged as an important construct in the applied psychological and management literatures (e.g. Maslach & Leiter, 2008), yet research on the dispositional antecedents of engagement is unclear about the influences of personality traits. Our study addresses this gap, and our main contribution is the test of a theoretical model linking traits of the Big Five model of personality and work engagement, examining the mediating role of psychological meaningfulness (a positive state in which individuals feel that their work is rewarding and worthwhile). In addition, we report associations of the Big Five (including several facets of the Big Five) with engagement, adding new empirical data to literature in this area.

Engagement at Work

The concept of engagement is usually attributed to Kahn (1990), whose ethnographic research led to the definition of engagement as “the harnessing of organization members’ selves to their work roles” (p.694). Kahn proposed that engaged individuals were physically involved, cognitively vigilant and emotionally connected with their work. However, engagement became popular in practice before development of robust academic foundation of knowledge in the area had been developed (Saks, 2006), so there remains ambiguity surrounding the definition and nature of work engagement (e.g. Macy & Schneider, 2008). Arguably the best supported model of engagement currently is that of Bakker and colleagues, who conceptualise it as “a positive, fulfilling, affective-motivational state of work-related well-being that is characterised by vigour, dedication and absorption” (p.187, Bakker, Schaufeli, Leiter & Taris, 2008). Vigour is defined as

being highly energised and mentally resilient while working, willing to invest effort in work and persevere when presented with obstacles. Dedication was described as a strong sense of involvement, enthusiasm and pride in one's work, coupled with feelings of significance, inspiration and challenge. Absorption is referred to as full concentration and happy engrossment in one's work, where time goes swiftly and detachment from work is difficult. These components reflect the physical, cognitive and emotional elements of engagement that Kahn (1990) proposed, whereby vigour corresponds to the physical aspect, dedication equates to the emotional aspect, and absorption relates to the cognitive aspect.

Engagement and Personality

Personality theorists have proposed five fundamental personality dimensions – Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience, collectively labelled the Big Five (Goldberg, 1990; McCrae & Costa, 1997). Extraversion refers to a person's engagement with the external world and social relationships; people who score highly on Extraversion are usually sociable, assertive, cheerful and exuberant. Agreeableness captures an individual's concern with social harmony, and people who have high levels of Agreeableness are good natured, cooperative, trusting and warm. Conscientiousness reflects a person's reliability and self control; a highly conscientious person is hard-working, responsible, self-disciplined and persistent. Neuroticism represents an individual's emotion regulation and tendency to experience negative feelings; people with low levels of Neuroticism are calm, secure, emotionally stable and self-confident. Openness to experience denotes an individual's creativity and adventurousness; people who score highly on Openness to experience are generally imaginative, curious, expressive and eager to try new things or challenge convention.

There is strong evidence that the personality traits of the Big Five model are related to job performance (Barrick & Mount, 1991) and positive work attitudes such as job satisfaction (Judge, Heller & Mount, 2002), and commitment (Erdheim, Wang, & Zickar, 2006). It is therefore reasonable to suppose similar associations with engagement, and this has prompted a number of empirical studies. The theoretical underpinning of these studies is based on relations between stable traits and transitory states. Whereas engagement may be thought of as state-like (i.e. it is variable, and may fluctuate over time), personality traits like those of the Big Five model are stable, and relatively pervasive and enduring (Langelaan et al., 2006). Stable traits therefore represent long-term tendencies or styles of conduct with generalized influence on the ways that people behave, think and feel (Funder, 2001). There is a wealth of studies showing that personality traits are distal variables that influence outcomes through mediating motivational or state-like variables (e.g. Eysenck, 1982; Barrick, Mount & Strauss, 1993; Judge & Illies, 2002; Kanfer, 1990). We adopt this theoretical reasoning in our study.

Traits may be thought of as influencing the mean level of state for an individual across temporal state fluctuations. For example, a person high on positive affect may experience a variety of states, positive and negative, but overall these are likely to represent generally more positive feelings than a person low on positive affect. It logically follows that particular traits from the Big Five model will either increase or decrease the likelihood of experiencing a state of engagement at work.

Langelaan et al. (2006) considered whether they highly engaged individuals could be classified based on two of the Big Five personality traits – Neuroticism and Extraversion. They found that work engagement was predicted by high scores for Extraversion and low scores for Neuroticism, and explained this by the association between these traits and positive and negative

affect respectively. Affect can be described as short-term, situation-specific mental states or emotions, so people with high levels of Extraversion are more likely to experience positive emotions and people with high levels of Neuroticism are more likely to experience negative emotions (Watson, 2000). Given that engagement is described as a positive affective-motivational state, this indicates that a person's propensity to experience positive or negative emotions is important for engagement.

Macey and Schneider (2008) proposed that Conscientiousness was also likely to be associated with engagement, as conscientious people are hardworking, which implies the capacity for dedication and absorption at work. Kim, Shin and Swanger (2009) examined all of the Big Five, reporting a positive association of engagement and Conscientiousness, and a negative association with Neuroticism. They attributed the association of Conscientiousness to the achievement striving tendency of individuals high on the dimension. They reported non-significant effects for Extraversion, Agreeableness and Openness to Experience.

Research on personality and engagement highlights the first research gap that we address in the present study, the form of relations of engagement with the Big Five, and particularly with Neuroticism, Extraversion and Conscientiousness. Our theoretical justification is that certain behavioural and emotional styles associated with these distal traits will make it more likely that a person will experience a state of engagement at work. Given the relative lack of clarity around the relations of engagement with Extraversion and Conscientiousness, we moreover examine whether sub-facets of those dimensions help to clarify their relations with engagement, a possibility neglected in past research.

There are multiple ways to organize the lower-order factor space of the Big Five (e.g. Hough and Ones, 2001), but the empirically derived model of DeYoung, Quilty, and Peterson

(2007) is arguably the most parsimonious of those currently available. The model differentiates ten aspects of the Big Five. In the Extraversion domain, DeYoung et al., differentiate Enthusiasm and Assertiveness. These dimensions respectively tap the sociable/gregarious, and dominant/competitive aspects of Extraversion. In our study, we will use the labels Gregariousness and Assertiveness for these facets. We propose that because people high on Assertiveness are likely to be driven, competitive, and energetic, they are likely to work with greater vigour and purpose, and therefore be more likely to be engaged at work. We propose that Gregariousness is unrelated to engagement. In respect of the Extraversion domain, we therefore hypothesize:

H1: Assertiveness will be positively associated with engagement.

DeYoung et al. (2007) divide Conscientiousness into two aspects labelled Industriousness and Orderliness (we adopt these labels in our study). Industriousness reflects the extent to which someone is hard-working and motivated, while Orderliness reflects the extent to which an individual is organised. We propose that people high in Industriousness are more likely to apply themselves to their work and consequently to experience engagement at work to a greater extent. Note here that the experience of the state of engagement (vigor, dedication, absorption) is conceptually different from the simple behavioural tendency of working hard and with greater effort (captured by Industriousness). We propose that the work style of those high on Industriousness is likely to promote the experience of the state of engagement at work because it is more likely that those individuals are invested and dedicated to their work. Orderliness is less clearly conceptually related to engagement, rather reflecting working style, and so we propose that it is unrelated to engagement. Our second hypothesis is:

H2: Industriousness will be positively associated with engagement.

Alongside these novel hypotheses, we also expect that the Neuroticism will correlate with engagement as reported in previous studies.

H3: Neuroticism will be negatively associated with engagement.

The Role of Psychological Meaningfulness

Although it is theoretically justifiable to propose links between traits such as the Big Five and states such as work engagement, it does not automatically follow that those trait-state relations are direct. Rather, it may be that there are intermediary states that, in part, explain the links. Positive psychological states are considered to be important antecedents of engagement (May, Gilson & Harter, 2004), and it is possible that such positive states mediate, in part, the relations of traits and engagement.

The psychological condition of experienced meaningfulness at work has been widely recognised in research as a significant psychological state for employees' motivation, experience at work and productivity (Hackman & Oldham, 1976), as well as their psychological well being (Arnold, Turner, Barling, Kelloway & McKee, 2007). Kahn (1990) has also identified psychological meaningfulness as an antecedent of engagement. He defined it as a "sense of return on investments of self in role performances" (p. 705) and feeling that the work carried out is valuable.

Meaningfulness is a related but distinct psychological state from engagement, underlined by research that examines its antecedent nature with respect to engagement (e.g. May, Gilson & Harter, 2004). The conceptual difference is that psychological meaningfulness is a state that specifically relates to the positive feeling that work is worthwhile or important. It therefore relates to a specific perception of one's work. Engagement is rather a wider experiential state about how one feels when one is at work; a sense of energy, absorption and involvement. May et

al., (2004), found that psychological meaningfulness was the strongest predictor of engagement among three proposed antecedents (the remaining two being psychological safety, and availability).

In this study, we therefore focus on meaningfulness as a mediating psychological state linking personality and engagement, and including in a theoretical model that explains a mechanism between distal personality traits and engagement. We propose that the personality traits Neuroticism, Assertiveness, and Industriousness are related to engagement in part because they increase the likelihood that an individual will feel psychological meaningfulness, which in turn leads to engagement. Our model is entirely consistent with previous modelling of the associations of traits and outcomes, mediated by state-like motivational processes (e.g. Mount, Ilies, & Johnson, 2006). We explain our rationale for the mediation of specific personality traits below.

Individuals high in Neuroticism have an increased propensity towards negativity (Watson, 2000). They may be less likely to experience positive psychological states and positive perceptions of their work. This indicates that Neuroticism will be negatively related to perceptions of meaningfulness at work, leading those high on Neuroticism to be less engaged at work.

Assertiveness is likely to be related to psychological meaningfulness because the extent to which someone feels energetic and ambitious with regard to their work, in its turn associated with a sense that one's effort is worthwhile, important or valuable. This argument suggests an indirect effect of Assertiveness on engagement, mediated by psychological meaningfulness.

People high in Industriousness are likely to be hard-working, achievement motivated and self disciplined, so they may be more likely to apply attention and effort to their work, and as a

consequence to derive a sense of meaning from and to assign importance or value to their work. Therefore, highly industrious individuals are likely to feel psychological meaningfulness at work, and to be more engaged as a consequence. This too suggests an indirect relationship between Industriousness and engagement, mediated by psychological meaningfulness.

Given the importance of affect in the experience of psychological meaningfulness, we predict complete mediation of the association of Neuroticism and engagement. For Assertiveness and Industriousness, the experience of psychological meaningfulness may be just one pathway that explains the relationship with engagement. Engagement is likely to result from an energetic and hardworking approach independent of the experience of psychological meaningfulness. We therefore predicted partial mediation of these relationships by psychological meaningfulness:

H4: Psychological meaningfulness will mediate the relationships of Neuroticism, Assertiveness, and Industriousness with engagement.

Our overall theoretical model linking personality traits, psychological meaningfulness, and engagement is shown in Figure 1 and represents a development in our understanding of how and why personality traits are related to engagement. In our study, we test our hypotheses in a sample of the UK working population. In addition to the tests of our hypotheses, we report the correlations of the Big Five with engagement and psychological meaningfulness, adding new empirical data to the emerging literatures in these areas.

Method

Participants and Procedure

Participants were a convenience sample of 238 UK working adults employed in office environments (mean age = 39; 30% male, 70% female). The data were collected using an online survey, which was distributed by email to participants using a snow-balling approach. A

summary of the occupations and organization sectors of the participants is shown in Table 1.

Although longitudinal research designs are ideal in testing mediated models, our cross-sectional design is nevertheless acceptable and consistent with previous research on indirect effects in applied psychological studies of personality traits and outcomes (e.g. Mount et al., 2006).

Measures

Work engagement. Engagement was measured using the three dimensional, 9-item Utrecht Work Engagement Scale (UWES-9, $\alpha=0.92$ in our data; Schaufeli, Bakker & Salanova, 2006). Participants were asked to consider how often they felt the way described in the item (e.g. At my work, I feel bursting with energy; I am immersed in my work), and responses were measured on a 7-point Likert scale with anchors of 0 (never) to 6 (every day). Although the UWES comprises three sub-scales, exploratory factor analyses indicated a single underlying factor in these items, consistent with the conceptualization of engagement as a single integrative latent construct (e.g. Seppälä et al., 2009). We therefore used the scale to compute a single engagement score for each participant.

Psychological meaningfulness. Psychological meaningfulness was measured with a 6-item scale ($\alpha=0.92$ in our data) taken from May et al. (2004). Participants were asked to rate how strongly they agreed with each item (e.g. The work I do on this job is worthwhile; My job activities are personally meaningful to me) using a 5-point scale (1=strongly disagree, 5=strongly agree).

The Big Five. Personality was measured using items from the Big Five Inventory V44 (BFI-44; Benet-Martínez & John, 1998). The scales demonstrated acceptable reliability in our data; Conscientiousness (9 items, $\alpha=0.80$), Extraversion (8 items, $\alpha=0.83$), Neuroticism (8 items, $\alpha=0.82$), Agreeableness (9 items, $\alpha=0.75$) and Openness (10 items, $\alpha=0.78$). Participants were

asked to rate how strongly they agreed with each item using a 5-point scale (1=strongly disagree, 5=strongly agree).

Facets for Conscientiousness and Extraversion were measured by splitting items from the respective scales into two sub-scales (available by email from the first author). Items were divided through exploratory factor analyses, specifying two factors rotated to oblique structure. The resultant sub-scales demonstrate good internal consistency; for Conscientiousness, Industriousness (3 items, $\alpha=0.71$) and Orderliness (6 items, $\alpha=0.75$); for Extraversion, Assertiveness (4 items, $\alpha=0.71$) and Gregariousness (4 items, $\alpha=0.80$).

Results

An important pre-analysis check in our study involved differentiating the mediator variable (psychological meaningfulness) and work engagement. We assessed the discriminant validity of the meaningfulness and engagement scales using confirmatory factor analysis. We compared a single latent factor model with a correlated two-factor model in which the six meaningfulness items and the nine engagement items each loaded on respective latent factors. Goodness of fit statistics indicated that the two-factor model ($\chi^2 = 363.69$, $df = 89$; $TLI = .88$; $CFI = .90$; $RMSEA = .11$) was an acceptable fit (indicated by the CFI value), and was better than the single-factor model ($\chi^2 = 686.05$, $df = 90$; $TLI = .74$; $CFI = .78$; $RMSEA = .17$). This pre-analysis check satisfied us of the discriminant validity of the meaningfulness and engagement scales, indicating that they are assessing two distinct constructs.

We first computed correlations between variables in the study, and found similar associations between personality and engagement as previous studies (see Table 2). Extraversion ($r=0.32$, $p<0.01$) and both its facets, Assertiveness ($r=0.46$, $p<0.01$) and Gregariousness ($r=0.16$, $p<0.05$), were positively correlated with engagement, though the association was stronger for

Assertiveness than Gregariousness, supporting hypothesis 1. Conscientiousness ($r=0.36$, $p<0.01$) and both its facets, Industriousness ($r=0.42$, $p<0.01$) and Orderliness ($r=0.30$, $p<0.01$), were also positively correlated with engagement, supporting hypothesis 2. Neuroticism was negatively correlated with engagement ($r=-0.31$, $p<0.01$), supporting hypothesis 3, and Agreeableness ($r=0.24$, $p<0.01$) and Openness ($r=0.28$, $p<0.01$) were both positively correlated with engagement.

Psychological meaningfulness was highly correlated with engagement ($r=0.71$, $p<0.01$), supporting previous findings (May, Gilson & Harter, 2004; Kahn, 1990; Saks, 2006). With the exception of Gregariousness, all personality traits in our mediation model were significantly correlated with psychological meaningfulness (Assertiveness: $r=0.33$; Neuroticism: $r=-0.27$; Industriousness: $r=0.38$; Orderliness: $r=0.32$; all $p<0.01$). As expected, there was a high level of convergence between Assertiveness and Gregariousness ($r=0.59$, $p<0.01$), and between Industriousness and Orderliness ($r=0.60$, $p<0.01$). However, the magnitude of the correlations is such that we can assume that the scales represent different aspects of their respective Big Five domains.

Test of Mediation Model

We examined the independent total effects of the personality traits in our model on engagement and psychological meaningfulness using regression analyses (see Table 3). For completeness, we included both facets of each of the dimensions Extraversion and Conscientiousness to provide robust tests of our hypotheses. All the personality traits considered in this study emerged as significant predictors of engagement except Orderliness. These findings support hypotheses 1 and 2. Assertiveness and Industriousness both significantly predicted

psychological meaningfulness. Additionally, psychological meaningfulness was shown to significantly predict engagement ($b=0.59$, $t(231)=12.16$, $p<0.01$).

We tested for mediation using Preacher and Hayes' (2008) method of testing indirect effects with bootstrapping, as it offers a more robust test of indirect effects than more traditional mediation tests (Ruva & McEvoy, 2008). Overall, our model predicted 58% of the variance in engagement ($R^2=0.59$, adjusted $R^2 =0.58$, $F(6, 231)=54.36$, $p<0.01$). Assertiveness and Industriousness were shown to have significant direct effects on engagement, as predicted. Assertiveness and Industriousness were also shown to have significant indirect relationships with engagement, mediated by psychological meaningfulness. These findings partially supported hypothesis 4.

Discussion

In this study, we examined the relations of personality and engagement, and tested a model in which these relations were mediated by perceptions of psychological meaningfulness of work. Our findings indicated that personality traits relating to Conscientiousness, and Extraversion were related to work engagement in two ways, directly, and indirectly mediated by psychological meaningfulness.

Personality and Engagement

Previous research has shown that personality traits are directly related to work engagement (Langelaan et al., 2006; Kim, Shin & Swanger, 2009), and this is supported by the findings from this study. Supporting hypotheses 1 and 2, Assertiveness and Industriousness were found to be directly related to engagement, with people high on Assertiveness and/or Industriousness reporting higher levels of engagement. The likely explanations for these direct effects are that highly industrious individuals are more likely to apply effort and attention to their

work, while highly assertive individuals are likely to work with greater vigour and purpose. In our regression models, the alternative facets of Extraversion (Gregariousness) and Conscientiousness (Orderliness) did not predict engagement as strongly. These findings suggest that with respect to engagement, narrow facets of personality may be stronger correlates than the broad Big Five domains. Future research could build on this finding by examining further facets of the Big Five model. Neuroticism was negatively related to engagement, supporting hypothesis 3 and previous findings (Langelaan et al., 2006; Kim, Shin & Swanger, 2009). However, in our regression models, we did not find a direct relationship between neuroticism and engagement (when facets of Extraversion and Conscientiousness were controlled), and nor did we find a significant indirect effect. The effects we observed were marginally significant (i.e. $p < 0.10$), and therefore do not allow us to confidently draw support for the hypotheses.

The Role of Psychological Meaningfulness

Psychological meaningfulness emerged as a predictor of engagement, consistent with previous research, highlighting the importance of perceiving work as meaningful for promoting engagement (May, Gilson & Harter, 2004; Kahn, 1990; Saks, 2006). Assertiveness and Industriousness were both shown to be positively related to psychological meaningfulness and Neuroticism negatively related.

Psychological meaningfulness was shown to partially mediate the relationships of Assertiveness and Industriousness with engagement, supporting hypothesis 3. The relationship between Assertiveness and engagement may be mediated by psychological meaningfulness because the extent to which someone is energetic and ambitious in their approach to work is likely to be associated with success, and other positive outcomes at work, in turn associated with a sense that one's effort is worthwhile, important or valuable. Psychological meaningfulness may

mediate the relationship from Industriousness to engagement as highly industrious people tend to be hard-working, achievement motivated and self disciplined, and so may assign importance and value to work activities, and therefore feel more engaged.

The theoretical implications of our findings relate to the influence of traits on psychological states at work. The mediation and direct effects observed in our findings demonstrate how enduring and stable traits are associated with experience of transitory states at work. Moreover, the findings of our mediation tests indicate how associations of traits with specific positive psychological states help to explain these associations. Our study focused specifically on psychological meaningfulness, but future studies could seek to test other possible mechanisms of the relations between traits and engagement.

Previous studies in this area have focused principally on the role affective traits (Neuroticism and Extraversion), whereas in our data, effects are observed for specific facets of the Big Five (Industriousness and Assertiveness), suggesting that work style and conduct outside of the affective domain may also be important in understanding the relations of engagement and personality.

Applied Implications

The findings of this study have some important implications for management. Firstly, many organizations conduct personality tests as part of their HRM activities to help understand people's traits, motivation, interests, and attitudes. Our study adds to understanding of the influences of personality on work outcomes, giving areas for exploration in coaching or feedback interviews based on personality assessment.

Secondly, the results of this study could be used to inform the design of interventions to increase engagement at work. Whilst our findings suggest that some traits predispose people to

be more engaged than others, the mediating role of psychological meaningfulness has potential implications for promoting engagement in organizations. Job design techniques can be used to create jobs that facilitate perceptions of psychological meaningfulness at work (Hackman & Oldham, 1976). Subject to testing the longitudinal causal pathways, a potential positive implication of our study is therefore that engagement is something that can be encouraged and fostered rather than solely reflecting individual dispositions and traits.

Future Research Directions

Our study highlights a number of areas in which future research could build on understanding of engagement. Given that this study found some facets of personality traits were more important for engagement than others, future studies could use more detailed measures of personality that enable a more in-depth examination of which facets of personality are key for engagement. Future research could also extend the model of personality and engagement developed in this study to examine the link between engagement and job performance, and whether personality traits impact on how or why engagement leads to improved performance at work. Finally, since Xanthopoulou, Bakker, Demerouti and Schaufeli (2009) found that people have a baseline level of engagement which can be subject to daily fluctuations, future studies could use a longitudinal approach to determine whether personality traits affect fluctuations in engagement levels over time.

Limitations

One limitation of our study was the convenience sampling approach used to recruit working adults. People who volunteered to complete the survey may not be fully representative of the general population. Notwithstanding this point, the use of a convenience sample did mean that participants from a variety of occupations were obtained, and from different organizations

across private, public, and third sectors, limiting occupational, organizational or sector specific effects which could have biased the results of the study. However, since engagement is a product of both individual and contextual factors, future research on engagement in specific organizations or occupations is warranted to enable the contextual factors in engagement to be controlled.

A second limitation is the potential influence of common method variance, which may have served to inflate correlations in the study, and the limitations of the cross-sectional design used in the study. Given the nature of the variables in the study, self-reporting was appropriate for the data collection. The cross-sectional design has been used in past research to test indirect effects as we did in our study (Mount et al., 2006). However, it obviously prevents inference of causal relations in the mediation model. Although our findings are informative and add new data to this research area, as highlighted above, a longitudinal or time-series data collection approach would be a useful next step in examining relations of personality, states and engagement.

Conclusion

The growing management interest in work engagement gives rise to the need to better understand its antecedents and outcomes. In this study, we found that specific personality dimensions and facets of the Big Five model predicted work engagement, and that these relations were partially mediated by the positive state of psychological meaningfulness. The findings explain an important pathway from disposition to the state of engagement, and have implications for organizations aiming to understand and develop employee engagement.

References

- Arnold, K., Turner, N., Barling, J., Kelloway, E. & McKee, M., (2007). Transformational leadership and psychological wellbeing: The mediating role of meaningful work. *Journal of Occupational Health Psychology, 12*, 193-203.
- Bakker, A., Schaufeli, W., Leiter, M. & Taris, T., (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress, 22*, 187-200.
- Barrick, M. & Mount, M., (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1-27.
- Barrick, M., Mount, M. & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology, 78*, 715-722.
- Benet-Martínez, V. & John, O., (1998). ‘Los Cinco Grandes’ across cultures and ethnic groups: Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology, 75*, 729-750.
- DeYoung, C., Quilty, L. & Peterson, J., (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology, 93*, 880-896.
- Erdheim, J., Wang, M. & Zickar, M., (2006). Linking the Big Five personality constructs to organizational commitment. *Personality and Individual Differences, 41*, 959-970.
- Eysenck, H. J. (1982). *Attention and Arousal: Cognition and Performance*. Berlin: Springer.
- Goldberg, L., (1990). An alternative “description of personality”: The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*, 1216-1229.
- Gottschalg, O. & Zollo, M., (2007). Interest alignment and competitive advantage. *Academy of Management Review, 32*, 418-437.

- Hackman, R. & Oldham, G., (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Harter, J. Schmidt, F. & Hayes, T., (2002). Business-unit level relationships between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-275.
- Hough, L. & Ones, D., (2001). The structure, measurement, validity, and use of personality variables in industrial, work, and organizational psychology. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of industrial, work and organizational psychology: Personnel psychology* (pp. 233–277). Thousand Oaks, CA: Sage.
- Judge, T., Heller, D. & Mount, M., (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87, 530-541.
- Judge, T. & Illies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology*, 87, 797-807.
- Kahn, W., (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kanfer, R. (1990) Motivation theory and industrial and organizational psychology. In Dunette MD, Hough, LM (Eds.), *Handbook of Industrial and Organizational Psychology*, (Vol 1. Pp 75-170. Palo Alto, CA. Consulting Psychologists Press Inc.
- Kim, H., Shin, K. & 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., van Doornen, L. & Schaufeli, W., (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences, 40*, 521-532.
- Macey, W. & Schneider, B., (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1*, 3-30.
- Maslach, C. & Leiter, M., (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*, 498-512.
- May, D., Gilson, R. & Harter, L., (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology, 77*, 11-37.
- McCrae, R. & Costa, P., (1997). Personality trait structure as a human universal. *American Psychologist, 52*, 509-516.
- Mount, M., Ilies, R., & Johnson, E. (2006). Relationship of personality trait and counterproductive work behaviors: the mediating effects of job satisfaction. *Personnel Psychology, 59*, 591-622.
- Preacher, K. & Hayes, A., (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891.
- Ruva, C. & McEvoy, C., (2008). Negative and positive pretrial publicity affect juror memory and decision making. *Journal of Experimental Psychology: Applied, 14*, 226-235.
- Saks, A., (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21*, 600-619.

- Schaufeli, W., Bakker, A. & Salanova, M., (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66, 701-716.
- Seppälä, P., Mauno, S., Feldt, T., Hakanen, J., Kinnunen, U., Tolvanen, A. & Schaufeli, W., (2009). The construct validity of the Utrecht Work Engagement Scale: Multisample and longitudinal evidence. *Journal of Happiness Studies*, 10, 459-481.
- Watson, D., (2000). *Mood and temperament*. New York: Russell Sage Foundation Press.
- Xanthopoulou, D., Bakker, A., Demerouti, E. & Schaufeli, W., (2009). 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.

Table 1

Organization Sectors and Occupations of Participants

	Number of participants	% of sample
Sector		
Private	105	44.1
Public	98	41.1
Voluntary	35	14.7
Occupation type		
Managers/Senior officials	83	34.9
Professionals	71	29.8
Associate professional/Technical	7	2.9
Administrative/Secretarial	55	23.1
Sales/Customer services	8	3.4
Other	14	5.9

N=238

Table 2

Means, standard deviations and correlations of all variables.

	1	2	3	4	5	6	7	8	9	10	11
1. Engagement	-										
2. Psychological Meaningfulness	0.71**	-									
3. Extraversion	0.32**	0.23**	-								
4. Assertiveness	0.46**	0.33**	0.85**	-							
5. Gregariousness	0.16*	0.12	0.93**	0.59**	-						
6. Neuroticism	-0.31**	-0.27**	-0.29**	-0.35**	-0.20**	-					
7. Conscientiousness	0.36**	0.36**	0.23**	0.34**	0.10	-0.42**	-				
8. Industriousness	0.42**	0.38**	0.21**	0.31**	0.10	-0.27**	0.77**	-			
9. Orderliness	0.30**	0.32**	0.21**	0.31**	0.09	-0.42**	0.97**	0.60**	-		
10. Agreeableness	0.24**	0.25**	0.11	0.19**	0.03	-0.43**	0.36**	0.27**	0.35**	-	
11. Openness	0.28**	0.22**	0.36**	0.47**	0.22**	-0.19**	0.11	0.18**	0.07	0.14*	-
Mean	4.04	4.15	3.62	3.79	3.45	2.51	4.15	4.59	3.93	4.09	3.56
Standard Deviation	1.11	0.82	0.75	0.97	0.97	0.77	0.57	0.51	0.68	0.56	0.60

N=238, *p<0.05, **p<0.01

Table 3

Standardised regression weights of personality traits on meaningfulness and engagement

	Psychological		Engagement					
	Meaningfulness		Total effect		Direct effect ^b		Indirect effect ^a	
	<i>b</i>	<i>t</i>	<i>b</i>	<i>t</i>	<i>b</i>	<i>t</i>	<i>b</i>	Bootstrap CIs
Assertiveness	0.22	2.97**	0.41	5.79**	0.28	4.93**	0.13*	0.04–0.24
Gregariousness	-0.07	-0.10	-0.13	-1.97*	-0.09	-1.73	-0.04	-0.13–0.03
Neuroticism	-0.11	-1.71	-0.13	-2.09*	-0.06	-1.30	-0.06	-0.15–0.01
Industriousness	0.24	3.42**	0.29	4.34**	0.15	2.75**	0.14*	0.04–0.25
Orderliness	0.05	0.68	-0.05	-0.76	-0.08	-1.52	0.03	-0.06–0.12

* $p < 0.05$, ** $p < 0.01$ ^aMediated by psychological meaningfulness.^bC-prime path (i.e. effect controlling for psychological meaningfulness)

Note: 95% confidence interval used for bootstrap tests,

Figure 1

Theoretical model linking personality traits, psychological meaningfulness, and work engagement.

