

## Six Blind Men and an Elephant: Workaholism vs. Work-Engagement from the Big-Two Personality Perspective rather than the Big Five

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### ABSTRACT

**Purpose** – This study attempts to compare and contrast workaholism and work engagement in terms of their dispositional antecedents. Although both concepts are perceived as heavy work investment, workaholism is associated with negative consequences such as burnout, counterproductive behavior, work-family conflict, psychosomatic symptoms, and declining work performance. Work engagement, on the other hand, is associated with positive aspects that include superior performance, organizational commitment, organizational citizenship behavior, physical and mental health. To distinguish a workaholic from a work engaged employee, this study offers a bird's eye view using the Big Two, the higher order traits of the Big Five.

**Design/Methodology/Approach** – The study is conducted on a sample of 250 full-time teachers (male: 154, female: 96; mean age:33.38 years) who were working at a higher education institution or a K-12 school in Istanbul, Turkey. The response rate was 90.9%. The convenience sampling method was used in data collection procedures. The data obtained by the survey method were analyzed using the structural equation modeling and common method variance techniques.

**Finding** – According to the results, stability was positively and significantly correlated with work engagement but negatively and significantly correlated with workaholism. Plasticity, on the other hand, was correlated strongly and positively with workaholism yet had no statistically significant correlation with work engagement. The negative and weak correlation between Stability and workaholism became a stronger path in the structural regression model, indicating the presence of a suppressor effect.

**Discussion** – The results of this research reveal that if an organization prefers work engaged employees rather than workaholics, then during the selection process, the hiring decision makers should look for the trait Stability as well.

## 1. INTRODUCTION

Work engagement and workaholism are two different types of “heavy work investment” (Schaufeli, 2016) that have drawn significant attention from researchers. A keyword search in *Web of Science* renders 2316 articles on “work engagement” and 385 articles on “workaholism” between 2000 and 2018. Due to this accumulated knowledge, these two constructs are clearly defined and distinguished from each other based on their consequences.

Workaholism is related to negative consequences such as burnout, counterproductive behavior, work-family conflict, psychosomatic symptoms, and declining work performance, whereas work engagement is associated with positive aspects that include superior performance, organizational commitment, organizational citizenship behavior, physical and mental health, life satisfaction (Lizano, 2021; Shimazu, Schaufeli, Kamiyama, & Kawakami, 2015; Choi, 2013; Schaufeli, Taris, & Van Rhenen, 2008). Therefore, the antecedents of workaholism and work engagement have been an important topic of interest for the researchers in the field. Organizational factors, leadership styles, job demands, and dispositional traits play important roles on a person's heavy investment in work (Schaufeli, 2016; Andreassen, 2014; Ng, Sorensen, & Feldman, 2007). However, there is yet no consensus on which dispositional traits could differentiate an engaged person from

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a workaholic despite the significance of this input for the employee selection and development processes. This study is devoted to finding out whether it is possible to make a clear distinction between a workaholic and work engaged based on their dispositional traits.

Our study is the first one that makes a comparative analysis using the higher-order factors of the Big Five. After realizing that previous studies conducted with the Big Five had yielded vague findings, we decided to look at the issue from a macro perspective and use the Big Two, that consisted of compound traits of the Big Five to get a clearer picture (Ones, Viswesvaran, & Dilchert, 2009).

## 2. CONCEPTUAL FRAMEWORK

### 2.1 How does Workaholism and Work Engagement differ?

Workaholism, a neologism of Oates (1971), was defined as the compulsive and uncontrollable need to work incessantly despite disruptions to health, well-being, personal and social relations. One of the leading models of workaholism by Spence and Robbins (1992) stated that a “workaholic is highly work involved, feel compelled or driven to work because of inner pressures and is low in enjoyment of work” (p.162). Scott, Moore, & Miceli (1997) defined workaholism with three dimensions. Firstly, workaholics spend a great deal of time in work activities, giving up important social and family events or recreational activities. Secondly, they persistently and frequently think about work when they are not at work. Thirdly, they work beyond what is expected to meet the requirements of the job or to meet basic economic needs. Schaufeli, Taris, & Van Rhenen (2008) arrived at a very similar definition with an additional emphasis on the fact that workaholics work excessively out of inner compulsion, need or drive. They also stated that workaholics work harder than their job descriptions or the requirements of their managers at the expense of neglecting their life outside their jobs. As Clark, Michel, Zhdonova, Pui, & Baltes (2014) clarified, the final consensus on workaholism is “an addiction to work that involves feeling compelled or driven to work because of internal pressures, having persistent and frequent thoughts about work when not working, and working beyond what is reasonably expected despite potential negative consequences” (p.5).

Work engagement, on the other hand, was first conceptualized by Kahn (1990) who defined it as “simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors” (p.700). He explained that people who are engaged keep their selves within a role and become physically involved in tasks while remaining cognitively vigilant and connecting empathically to others. Schaufeli (2014) defined the physical-energetic component with “vigor”, the emotional component with “dedication” and the cognitive component with “absorption”. Vigor consists of high levels of energy and mental resilience as well as the willingness to exert persistent effort in one’s work even in the face of difficulties. Dedication indicates a strong involvement in one’s work accompanied by feelings of enthusiasm, inspiration, pride, sense of significance and challenge. Lastly, absorption refers to being fully concentrated in such a way that time passes quickly while one is heartily engrossed in work with the difficulty of detaching.

Schaufeli (2014) underlined the “psychologization” of the workplace, indicating that in a world of globalism, continuous change, and diversity, organizations require from employees to invest at work their psychological capabilities such as flexibility, perspective taking, assertiveness, communication skills, personal initiatives, self-control and resilience. Therefore, the need to employ and retain engaged workers instead of workaholics, who work hard out of an inner compulsion despite the outcome of eroding one’s health, relationships, life satisfaction, psychological well-being, performance, organizational citizenship, is highly critical in the postmodern era (Schaufeli, 2016).

### 2.2 Big Five Traits in relation to Workaholism and Work Engagement

Dispositional traits such as perfectionism, optimism, Type A personality, positive and negative affect, self-esteem, and self-efficacy have been used in studies as antecedents of workaholism and work engagement (Spagnoli, Scafuri Kovalchuk, Aiello, & Rice, 2021; Mazzetti, Guglielmi, & Schaufeli, 2020; Spence & Robbins, 1992; Ng et al., 2007). However, there is a consensus among psychologists that the Big Five traits represent the structure of personality in the most thorough way since they were discovered through psycholexical studies, based on the idea that all important aspects of personality were encoded in language (McCrae & Costa, 2008). Accordingly, we searched for studies that employed the Big Five traits in relation to work

engagement and/or workaholism. However, the results of those studies cannot present a clear picture as to their dispositional antecedents.

The most recent study by Schaufeli (2016) analyzed workaholism and work engagement in relation to the Big Five traits. The results indicated that neuroticism ( $r = -.20$ ) was negatively correlated with work engagement while the other four traits were all positively correlated. Yet these results contradict with the previous nine studies that found only neuroticism, extraversion and agreeableness were moderately related to work engagement and the impacts of conscientiousness and openness were negligible. As for workaholism, Schaufeli (2016) found that neuroticism ( $r = .32$ ), extraversion ( $r = .12$ ) and agreeableness ( $r = .10$ ) were correlated. However, the meta-analysis by Clark et al. (2014) revealed that the only Big Five trait that had a significant positive correlation with workaholism was extraversion while another study (Burke, Matthiesen, & Pallensen, 2006) found that workaholism only correlated moderately with neuroticism ( $r = 0.35$ ). The results of these different studies resemble the famous Indian fable of "Six Blind Men and an Elephant" since all these findings could be partially right and only by looking at the big picture we could get a clearer view, which seems possible through the utilization of the higher-order factors of the Big Five, Stability and Plasticity.

### 2.3 Plasticity and Stability - the Big Two vs Workaholism and Work Engagement

The higher-order traits of the Big Five were first reported by Digman (1997) who stated that the five factors of personality were not orthogonal, and they correlated with one another and labelled the shared variance of Emotional Stability (reverse of Neuroticism), Agreeableness and Conscientiousness as 'Alpha' and the shared variance of "Extraversion" and "Openness" as 'Beta'. Before Digman (1997), Ones, Viswesvaran, and Reiss (1996) had also reported a meta-analytically derived matrix of intercorrelations among the Big Five factors, suggesting a non-orthogonal picture. The study by DeYoung (2006) in a large community sample ( $n = 490$ ) with multi-informant ratings from four additional informants also showed that the Big Five were indeed not orthogonal. McCrea et al. (2008) conducted a multicultural twin study and admitted that the two meta-traits of the Big Five were not only valid but also heritable.

Similarly, the multigroup multitrait-multimethod study conducted in two countries by Şimşek, Köydemir & Schütz (2012) supported the validity of the higher-order factors of the Big Five.

Digman (1997) argued that the higher-order traits were critical for personality research because they completed the missing link between psychometric models of personality and theories of personality development. He put forward that Alpha represented "socialization process" as explained by the psychoanalysts and behaviorists while Beta represented "personal growth" as explained by growth theorists. He further elaborated that among the classical theories, the Big Two fitted best with Adler's (1939) *social interest* and *striving for superiority* concepts. As for the contemporary theories, Bakan's *agency*, referring to striving for mastery, power, self-assertion, and self-expansion, could be associated with factor Beta, and *communion*, could be associated with factor Alpha. Similarly, McAdams' two motives, *intimacy* and *power* resembled Alpha and Beta (Digman, 1997).

DeYoung, Peterson, and Higgins (2002) linked the two meta-traits to the serotonergic and dopaminergic functioning of the brain system and suggested using the labels Stability and Plasticity instead of Alpha and Beta. They stated that Plasticity reflects the tendency to explore and to engage voluntarily with novelty. DeYoung (2013) also asserted that confidence, ambition, and agency are at the core of Plasticity. Besides, it involves being outgoing, adventurous, expressive, active, and assertive and taking risks, thinking out of box, using intellect, being creative and imaginative, being open to experiences, ideas, and change along with dominance, desire for agency, power and status. Sociability, vigor, and dynamism are also the components of Plasticity (Costa and McCrae, 1980).

Stability, on the other hand, is linked to the serotonergic system (DeYoung et al., 2002), which involves being organized, self-disciplined and cooperative. Stability enables one to maintain the orderly functioning within the surrounding environment. It reflects relative freedom from negative affect and withdrawal (McCrea et al., 2008). Stability is compatible with the socialization process and Adler's (1939) concept of social interest. In other words, Stability capacitates impulse restraint, reduction of hostility, aggression and neurotic defense as well as the development of conscience (Digman, 1997). Stability provides humans with the capability to cooperate, to show empathy and to be in harmony with the environment.

It is worth mentioning here that the Big Two model of personality has been under discussion. For example, Chang, Connelly, and Geeza (2012) conducted a meta-analytic multitrait-multimethod study where they found that the Big Two model was a plausible one. Yet, they still criticized this model since in their findings Stability and Plasticity each had a higher correlation with one of their sub-traits. Another criticism of the Big Two came from Aston, Lee, Goldberg and de Vries (2009) who revealed that the Big Five traits were not orthogonal but insisted that the 10 facets of the five factors showed better fit to the data than the higher-order factor model. Yet further studies are confirming the discriminant value of the meta-traits over the Big Five traits. A recent meta-analysis by Karwowski, Lebuda Wisniewska, & Gralewski (2016) proved that Plasticity and Stability explained 37% of the variance in creative self-beliefs (CSBs) indicating a substantially stronger effect compared to the 23% variance explained by the Big Five traits. Moreover, Plasticity ( $r = .71$ ) and Stability ( $r = -.23$ ) having opposite associations with CSBs, revealed a pattern more consistent with the literature on creativity and personality compared to the Big Five traits all having positive correlations except for neuroticism. In addition, the factor loadings of the Big Five traits on the meta-traits were uniform without a domineering single factor for any one of the meta-trait as Chang et al. (2012) had argued. More importantly, in industrial/organizational psychology, Ones et al. (2009) reported that the compound traits generated higher validities (around .35 to .40 range) for predicting overall job performance and other work-related behaviors compared to the Big Five scales (in .20's). DeYoung (2013) provided more information on the importance of using meta-traits to get a clearer picture. Therefore, for the dispositional antecedents of workaholism and work engagement, we need to conduct our study at the level of the meta-traits.

When we focus on the common denominator of workaholism and work engagement which is the heavy work investment, we propose that this drive and impetus related to both work behaviors could be positively associated with the Plasticity dimension since Plasticity reflects the contribution that the dopaminergic drive makes on the motivation for sustained hard work and accomplishment of the tasks (DeYoung, 2013). Dopamine appears to be crucial for overcoming the cost of effort when deciding to initiate behavior aimed at reward. As DeYoung (2013) proposed, achievement striving is specifically posited to be strongly influenced by dopamine. Therefore, Plasticity could lead to both workaholism and work engagement. In addition, the aforesaid qualities centering around striving for superiority and personal growth could both be providing the engaged worker and the workaholic with the necessary drive for hard work. Based on the above-mentioned literature, we expect that:

H1. Plasticity significantly and positively contributes to workaholism.

H2. Plasticity significantly and positively contributes to work engagement.

In this research, we propose that the differentiation of workaholism and work engagement originates from the Stability dimension. To clarify this point, it is necessary to explain the role of Stability for work engagement and workaholism separately. Work engagement requires high levels of energy and mental resilience, represented under vigor. Stability provides an individual with motivational, emotional and social stability that would allow one to exert mental and physical resilience. Enthusiastic dedication to work in a steady and enduring manner could be a result of self-discipline, impulse restraint, and resistance to replacing operative or longer-term goals with immediate satisfaction. Similarly, absorption, full concentration and hearty engrossment in work are also linked to the ability to defer disruptive motives like instincts, hostility or aggression. All these qualifications, embedded under the Stability dimension, are also related to the socialization process (Digman, 1997) and social interest (Adler, 1939). The ability to cooperate, to be in harmony and to contribute to the welfare of the community, represent the qualifications of an engaged worker.

Workaholism, on the other hand, is defined by the inner compulsion or an uncontrollable need to work (Clark et al., 2014); the persistent thoughts about work and feelings of anxiety and guilt when not working (Ng et al., 2007); and working despite deteriorating family and social relationships as well as impaired health and reduced well-being (Clark et al., 2014). These are all likely to contradict with the Stability dimension. DeYoung et al. (2002) resembled the Stability dimension to the serotonergic system responsible for the regulation of emotional, motivational and circadian processes. For example, impulsiveness is characterized by low level of Stability and therefore a workaholic is characterized by the inability to restrain the impulse to work or to detach one's mind from work even though they are hazardous to the preservation of a healthy and

harmonious self. The workaholics are mainly described as lacking the behavioral and emotional constraint and control which are the processes provided by the serotonergic system to contribute to the general stability of a person. The socialization process and Adler's (1939) concept of social interest, reflected in Stability dimension, involve the work in cooperation and harmony. Workaholics who cannot control their compulsion despite its damaging effects on their health and personal/social relations act contrary to the socialization theories. Based on these premises, we expect in the present study that:

H4. Stability significantly and positively contributes to work engagement.

H3. Stability significantly and negatively contributes to workaholism.

### 3. METHODOLOGY OF THE RESEARCH

#### 3.1 Strategy of the Research

Although the basic aim of the present study was to test the regression model with latent variables, we first tested the Big Two, the higher-order model using exploratory and confirmatory factor analyses since the validity of these meta-traits is under discussion as mentioned above. Test of the proposed regression model in the present study was accomplished using a two-step approach. That is, the measurement model was tested before the structural model in which workaholism and work engagement were regressed on two meta-traits of personality, namely Plasticity, and Stability. In all structural equation modeling analyses, latent variables are operationalized by their respective measures' sub-factors.

Moreover, common method variance (CMV) was utilized in these analyses. CMV has been considered one of the most important problems caused by the measurement method (Podsakoff, MacKenzie, Podsakoff, & Lee, 2003), and has been shown to result in biased parameter estimates (Johnson, Rosen, & Djurdjevic, 2011). Given that all data was gathered in only one meeting with the participants, a common method variance was expected to influence covariances among the variables. Podsakoff et al. (2003) stated that a "consistency effect" is a natural result of participants' inclination to seek a consistency between their cognitions and attitudes. They proposed a strategy in which a method latent variable would be incorporated into both the measurement and the structural models and, thus, make it possible to test the effect of this confounding variable on the relationships among all research variables. Consequently, common method variance was controlled by creating a latent variable without any indicator although having paths to the indicators of all latent constructs in the model. The variance of this method variance was set to 1.00 to achieve identification. SPSS 21.0 and LISREL 8.5 were used to analyze the study data.

#### 3.2 Sample and Data Collection

The study sample included 250 full-time teachers (male: 154, female: 96; mean age: 33.38 years) who were working at a higher education institution or a K-12 school in Istanbul,

Turkey. The response rate was 90.9%. The convenience sampling method was used in data collection procedures. The questionnaires were collected over a period of 10 weeks.

#### 3.3 Measures

The Big-Five Inventory (BFI) by John, Donahue, & Kentle (1991) was used to measure personality traits. This inventory includes 44 items and 5 subscales, namely openness (e.g. "I see myself as someone who has an active imagination"), conscientiousness (e.g. "I see myself as someone who does a thorough job"), extraversion (e.g. "I see myself as someone who is full of energy"), agreeableness (e.g. "I see myself as someone who has a forgiving nature"), and neuroticism (e.g. "I see myself as someone who worries a lot"). Participants were asked to indicate the extent to which they agree or disagree with each statement using a 5-point rating system (1 = strongly disagree, 5 = strongly agree). The Cronbach's alpha was 0.81 for Openness, 0.82 for Conscientiousness, 0.88 for Extraversion, 0.79 for Agreeableness, and 0.84 for the Neuroticism.

Utrecht Work Engagement Scale (UWES) by Schaufeli and Bakker (2003) was used to measure work engagement. This scale was adapted into Turkish by Islamoglu, Birsnel, Yurtkoru & Boru (2011). The scale includes 17 items and 3 subfactors, namely *vigor* with 6 items (e.g. "At my job, I feel strong and vigorous"), *dedication* with 5 items (e.g. "I am proud of the work that I do") and *absorption* with 6 items (e.g. "I get carried away when I'm working"). The participants were asked to complete the inventory using a 5-point rating

system (1 = strongly disagree, 5 = strongly agree). The Cronbach's alpha was .81 for vigor, .79 for dedication, and .78 for absorption.

Dutch Work Addiction Scale (DUWAS) by Schaufeli et al. (2008b) was used to measure workaholism. This scale includes 17 items and 2 subscales, namely *working excessively* (WEX) with 9 items (e.g. "I find myself still working after my co-workers have called it quits") and *working compulsively* (WCOM) with 7 items (e.g. "I feel guilty when I take time off work").

The items were measured on a 5-point rating system (1 = strongly disagree, 5 = strongly agree). The Cronbach's alpha was 0.80 for the subscale WEXC and 0.86 for the subscale WCOMP.

#### 4. ANALYSES AND RESULTS

The two-step approach was used in the present study, meaning that the measurement model was tested prior to the structural model. This is a well-known approach for testing structural equation models in order to get evidence concerning the reliability of the measures used in the study. The tests of measurement and structural models were accomplished by controlling for the common method variance (CMV) statistically. However, before the tests of the measurement and the structural models, a higher-order exploratory factor analysis and a confirmatory factor analysis were computed to determine whether the Big Two traits could be extracted from the Big Five personality dimensions.

##### 4.1 Results of the Exploratory and Confirmatory Factor Analysis of the Big Two

The exploratory factor analysis using Principal Axis Factoring method with oblique rotation method extracted two factors with eigenvalues of 2.19 and 1.33, accounting for 43.84% and 20.06%, respectively. The first factor consisted of the three sub-factors of Stability, i.e., conscientiousness, agreeableness, and neuroticism, while the second factor, Plasticity, was composed of openness and extraversion. Factor loadings are represented in Table 1.

Table 1. Factor Loadings for the Exploratory Factor Analysis

	Plasticity	Stability
CON	<b>.67</b>	
NEU	<b>-.54</b>	
AGR	<b>.51</b>	.19
OPE		<b>.79</b>
EXT	.26	<b>.67</b>

Notes: AGR = Agreeableness, CON = Conscientiousness, NEU = Neuroticism, EXT = Extraversion, OPE = Openness to experience; Factor loadings below .10 are not shown for the ease of representation.

A confirmatory factor analysis was performed and produced goodness-of-fit statistics that indicated a good fit to the data:  $\chi^2(4, N = 250) = 9.64, p < .01$ ; Goodness-of-fit Index (GFI) = 0.98, Normed Fit Index (NFI) = 0.97, Comparative Fit Index (CFI) = 0.98, Incremental Fit Index (IFI) = 0.98.

##### 4.2 Results of the Structural Regression Model with Latent Variables

###### 4.2.1 Test of the Measurement Model

A test of the measurement model was accomplished by defining the observed variables for each latent variable. As indicated previously, the meta-traits Stability and Plasticity were defined by the Big Five personality traits of neuroticism, agreeableness, conscientiousness, extraversion, and openness to experience, the first three of which concerned Stability while the latter two referred to Plasticity. Consequently, composite scores of these traits were used as the observed variables of the meta-traits Plasticity and Stability.

The two factors of DUWAS and three factors of UWES are defined as the indicators of workaholism and work engagement latent variables, respectively. Means and standard deviations of these observed variables and the intercorrelations between them are presented in Table 2.

Table 2. Means, Standard Deviations, and Intercorrelations of Observed Variables

	Mean	SD	AGR	CON	NEU	EXT	OPE	VIG	DED	ABS	WEX
AGR	37.03	4.79	–								
CON	31.09	3.66	.46	–							
NEU	22.72	5.22	-.22	-.34	–						
EXT	30.29	5.75	.37	.30	-.20	–					
OPE	39.14	5.80	.29	.21	-.09	.41	–				
VIG	21.99	4.52	.43	.49	-.28	.28	.33	–			
DED	20.21	4.30	.28	.34	-.04	.29	.39	.64	–		
ABS	22.13	4.72	.20	.30	-.10	.28	.23	.52	.49	–	
WEX	31.66	5.89	.13	.17	.22	.23	.19	.27	.23	.44	–
WCO	25.43	5.32	.03	.02	.31	.13	.10	.22	.17	.36	.71

Notes:  $N = 250$ ; AGR = Agreeableness, CON = Conscientiousness, NEU = Neuroticism, EXT = Extraversion, OPE = Openness to experience, VIG = Vigor, DED = Dedication, ABS = Absorbtion, WEX = Working excessively, WCO = Working compulsively. Values greater than .13 are statistically significant at  $p < .05$ .

In order to understand the effect of common method bias on the measurement model, the models with and without CMV were tested. A test of the measurement model without CMV resulted in acceptable goodness-of-fit statistics:  $\chi^2(29, N = 250) = 135.37, p < .05$ ; Goodness-of-fit Index (GFI) = 0.90, Normed Fit Index (NFI) = 0.90, Comparative Fit Index (CFI) = 0.92, Incremental Fit Index (IFI) = 0.92. Including CMV resulted in a much better goodness of fit statistics:  $\chi^2(28, N = 250) = 86.77, p < .05$ ; Goodness-of-fit Index (GFI) = 0.93, Normed Fit Index (NFI) = 0.94, Comparative Fit Index (CFI) = 0.95, Incremental Fit Index (IFI) = 0.95. A chi-square difference test ( $\Delta^2 = 48.6, 1: p < .01$ ) showed that the model with CMV was statistically better than the model without CMV, indicating that the measurement model was statistically biased because of CMV. Factor loadings of the measurement model showed that although the effect of CMV on the measured variables were moderate, the factor loadings of all indicators were generally high and statistically significant (Table 3).

Table 3. Factor Loadings, standard errors, and t-values for the Measurement Model

Measure and Variable	Unstandardized Factor Loading	SE	t-Value	Standardized Factor Loading
Stability				
AGR	2.83	0.28	10.01	.63
CON	2.33	0.22	10.53	.66
NEU	-3.16	0.35	-9.13	-.59
Plasticity				
EXT	4.34	0.38	11.33	.81
OPE	3.45	0.40	8.61	.58
Work Engagement				
VIG	4.04	0.24	16.81	.89
DEC	2.94	0.21	14.02	.78
ABS	3.27	0.27	11.92	.69
Workaholism				
WEX	5.35	0.37	14.28	.92
WCO	4.12	0.34	12.08	.77

Notes:  $N = 250$ ; AGR = Agreeableness, CON = Conscientiousness, NEU = Neuroticism, EXT = Extraversion, OPE = Openness to experience, VIG = Vigor, DED = Dedication, ABS = Absorbtion, WEX = Working excessively, WCO = Working compulsively.

The correlations among the latent constructs with and without common method bias are presented in Table 4. As can be seen from the table, correlations between the constructs became weaker when the common method bias was controlled statistically, except for the correlation between Stability and workaholism which increased from -.06 to -.19 and became statistically significant. According to the latent correlations calculated by using LISREL 8.5, most of the constructs were correlated with each other strongly. The strongest correlation was

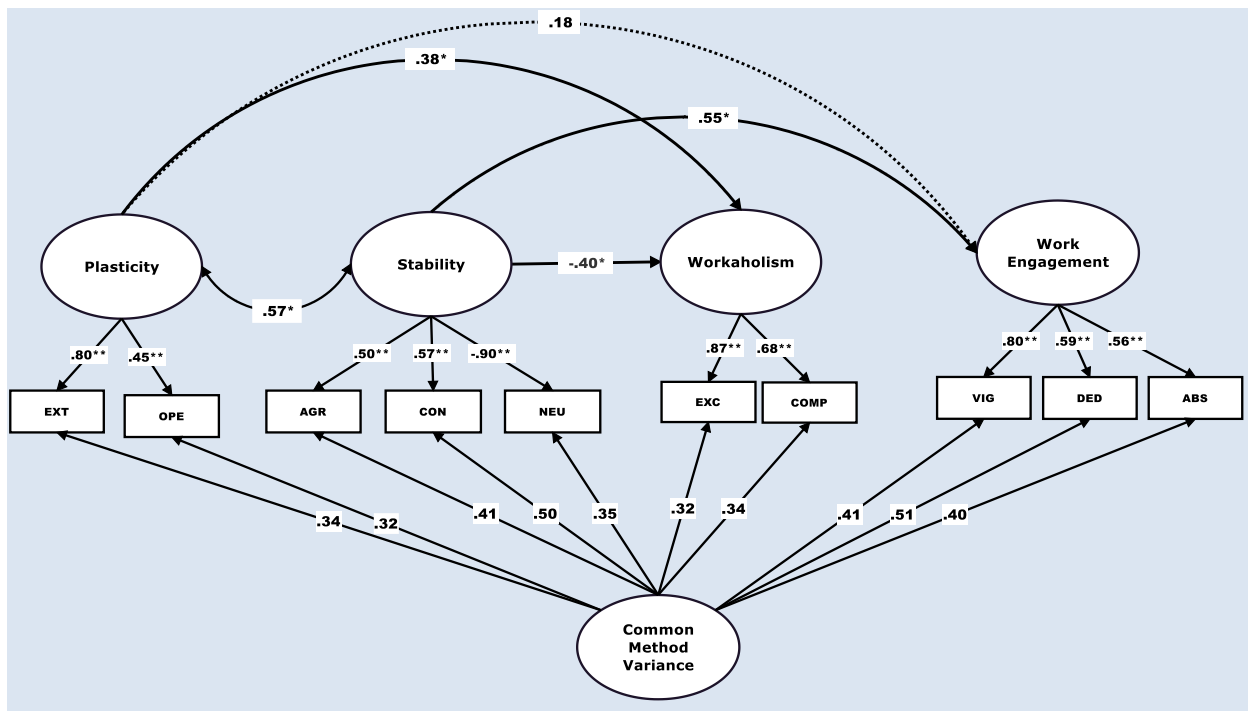
between Stability and work engagement latent variables. The correlations of Plasticity with Stability and work engagement were moderate and statistically significant. Finally, the correlations of workaholism with Plasticity and work engagement were weak and only the latter was statistically significant.

It is clear from these results that the correlations among the constructs decreased when the common method bias was taken into consideration. An average .15 decrease was observed in all correlations among the variables (.12 to .18) except for the increase in the correlation between Stability and workaholism (from -.06 to -.19).

#### 4.2.3 Test of the Structural Model

Given that the measurement model was tested by taking CMV into account, the structural model was also tested with a statistical controlling for the common method bias. A test of the structural model with Maximum Likelihood estimation method yielded relatively poor goodness of fit statistics:  $\chi^2(29, N = 250) = 108.20, p < .05$ ; Goodness-of-fit Index (GFI) = 0.89, Normed Fit Index (NFI) = 0.90, Comparative Fit Index (CFI) = 0.91, Incremental Fit

Index (IFI) = 0.91. Modification indexes produced by LISREL suggested an error covariance between the dependent variables, namely workaholism and work engagement. Adding a covariance between the dependent variables resulted in a good fit to the data as indicated by the following goodness of fit statistics:  $\chi^2(28, N = 250) = 86.77, p < .05$ ; Goodness-of-fit Index (GFI) = 0.93, Normed Fit Index (NFI) = 0.94, Comparative Fit Index (CFI) = 0.95, Incremental Fit Index (IFI) = 0.95. A chi-square difference test ( $\Delta^2 = 21.43, 1: p < .01$ ) indeed showed that the model with this modification was statistically better.



Notes:  $N = 250$ ; AGR = Agreeableness, CON = Conscientiousness, NEU = Neuroticism, OPE = Openness to experience, EXT = Extraversion, VIG = Vigor, DED = Dedication, ABS = Absorption, EXC = Working excessively, COMP = Working compulsively; dotted line refers to a non-significant path.

**Figure 1.** Standardized parameter estimates for the proposed regression model with common method variance.

According to the results of this final regression model (Figure 1), Stability was positively and significantly correlated with work engagement but negatively and significantly correlated with workaholism. Plasticity, on the other hand, was correlated strongly and positively with workaholism yet had no statistically significant correlation with engagement. It is clear from the results that the negative and weak correlation between Stability and workaholism in the measurement model became a stronger path in the structural regression model, indicating a suppressor effect.



## 5. DISCUSSION

The present study investigated the influence of personality variables on workaholism and work engagement based on the Big Two model of personality. This model consists of two higher-order factors, Stability, and Plasticity. These factors reflect the basic individual dispositions, the need to maintain a stable personal environment, and the need to change that environment, respectively (DeYoung et al., 2002). In this regard, this is the first study using the Big Two model of personality to differentiate workaholic and engaged employees, and thus, to discover the core dispositions underlying these two types of heavy work investment. This study is also the first to provide literature with a predictive, practical, and clear perspective for differentiating an engaged employee from a workaholic at the recruitment stage. Besides, this differentiation is not only empirically proven but also supported by personality theories. The findings of this study will enhance the general understanding of how individuals' core characteristics of personality are associated with their organizational behavior. Our findings will also contribute to the personnel psychology specifically by showing the variation in individuals' working behavior by different meta-traits.

First, our results showed that both Plasticity and Stability had strong correlations with work engagement. When regressed on these meta-traits, however, work engagement was predicted only by Stability while the level of significance was not retained for Plasticity. Stability involves motivational, emotional and social stability since it prevents disruption of goals by impulses like anger, providing an individual with self-control, self-regulation and socialization capabilities. For an employee to be engaged at work, the individual first needs these qualifications to focus on one's goals and manage one's emotions at work especially the distracting ones like anxiety, worry, distress, or anger. In addition, Stability enables one to pursue cooperation and consistency in work relationships for a prolonged time.

Workaholism, on the other hand, was found to be positively correlated with Plasticity and negatively correlated with Stability as we hypothesized. Workaholism involves certain characteristics such as a strong inner compulsion; an addiction to work that results in rejecting other aspects of life (Schaufeli et al., 2008b); and an aversion to close social relationships that results in both impaired social relations and reduced life satisfaction (Schaufeli, 2016). The negative relationship between workaholism and Stability can be explained by these behavioral patterns of workaholics, since Stability reflects one's overall ability to preserve stable relations, emotional state, and motivation, and focuses on the stabilization of one's environment. Plasticity, in turn, is mostly associated with intellectual curiosity, active imagination, a variety of choices, determination, and ambitiousness. Therefore, the positive relationship between workaholism and Plasticity can be explained through the determinativeness and ambitiousness of workaholics. In this regard, the present study advances the available literature on the impact of core personality traits on workaholism and brings a new insight by employing the Big Two to reveal the influence of core dispositional antecedents.

Moreover, we observed a suppression effect in case of workaholism. That is, Plasticity and Stability suppress each other in their effects on workaholism. Correlational findings showed weak associations of workaholism with both Plasticity and Stability. However, when Plasticity and Stability were added into the regression model, the relationships of these meta-traits with workaholism increased more than two times. These results clearly indicate that these meta-traits should both be taken into consideration to predict workaholism.

Finally, it should be noted here that controlling CMV in the present study provided remarkable benefits. In the present study, the inflated correlations (especially the association of Stability with both Plasticity and work engagement) among the latent variables decreased when the CMV is included in the measurement and structural regression models. On the other hand, adding CMV into the model resulted in an increase in the correlation between Stability and workaholism, and thus, we were able to show the predictive power of this meta-trait in accounting for the variance in workaholism.

### 5.1 Practical Implications

For many organizations, employee selection and development processes are very important for keeping the organization agile and competitive in the long run. Our study provides a significant input for these processes. Providing insight into the root cause of a workaholic's destructive work behavior might benefit the person for

understanding his or her own anxiety or other destabilizing emotions. This insight might help workaholics to deal with the low Stability dimension of their personality that makes work life so overwhelming for them.

When it comes to the employee selection process, being aware of the dispositional antecedents of workaholism might help organizations not to overlook the importance of the trait Stability if they are using a personality assessment questionnaire. An individual with high Plasticity might be too impressive in a job interview with the confident, ambitious attitude, overpromising about one's capabilities and future attainments. The results of the present study indicate that the problems could arise if the employee has low Stability. Therefore, during the selection process, the hiring decision makers should look for the trait Stability as well.

## 5.2 Study Limitations and Suggestions for Future Research

Despite its significant contributions to the available literature, this study is not without limitations. Our sample size may be small, which may limit the generalizability of our findings.

Future research with a broader sample would yield more generalizable conclusions. Furthermore, our sample included a higher number of male participants and this may be interpreted that the relationships established may not be the same across genders. Past research (Spence & Robbins, 1992) found gender differences among the participants in academic positions. Future research should examine the predictive power of meta-traits on these two types of heavy work investment based on gender.

Although common method bias was taken into consideration and controlled statistically in the present study, additional biases might have impacted the results obtained. Since the data concerning personality were collected using self-report questionnaires, the findings may be subject to social desirability (Williams & Anderson, 1994), which might have an influence on the correlations between the variables. Future research should also use the same statistical method used in the present study to control social desirability by measuring and using it as a latent variable in the regression model (Podsakoff et al., 2003).

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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