The dualistic model of passion for work: discriminate and predictive validity with work engagement and workaholism

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The Dualistic Model of Passion for Work:

Discriminate and Predictive Validity with Work Engagement and Workaholism

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Abstract

The purpose of this paper was to investigate the discriminant and predictive validity of the dualistic model of passion for work. Harmonious and obsessive passion was compared to work engagement and workaholism in two studies. Study 1 was cross-sectional and supported convergent and discriminant validity of the dualistic model using exploratory structural equation modeling (ESEM) and confirmatory factor analysis. Study 2 was cross-lagged and applied confirmatory factor analyses, as well as hierarchical linear modeling to test discriminant, convergent, and predictive validity of harmonious and obsessive passion for work. Predictive validity was supported for obsessive and harmonious passion with respect to wellbeing, but not with respect to performance. When controlling for work engagement and workaholism, harmonious passion was negatively related to burnout and positively related to life satisfaction. In contrast, obsessive passion related positively to burnout and negatively to life satisfaction. Only workaholism predicted variance in supervisor rated organizational citizenship behaviors (negatively related), and none of the included variables were associated with supervisor rated in-role performance.

Keywords: Harmonious and obsessive passion for work, work engagement, workaholism, discriminant validity, convergent validity.

Introduction

Practitioners and researchers alike have been calling for passion for work as means for wellbeing and performance (Allegretti, 2000; Boyatzis, McKee, & Goleman, 2002; Cardon, Wincent, Singh, & Drnovsek, 2009; Locke & Latham, 2004; Martin, 2004; Perrewé, Hochwarter, Ferris, McAllister, & Harris, 2013; Zigarmi, Nimon, Houson, Witt, & Dichl, 2011). Passion for work is most commonly conceptualized as a strong inclination toward work that one loves, considers highly important and a vital part of one's self-concept, and in which one invests significant amounts of time and energy (Forest et al., 2012; Vallerand & Houlfort, 2003). According to Vallerand et al. (2003, p. 756) "passion can fuel motivation, enhance well-being, and provide meaning in everyday life." However, as they also point out, passion can "arouse negative emotions, lead to inflexible persistence, and interfere with achieving a balanced, successful life."

These differing outcomes led Vallerand et al (2003) to propose a dualistic model of passion for work (Philippe, Vallerand, Houlfort, Lavigne, & Donahue, 2010; Vallerand & Houlfort, 2003). Harmonious passion (HP) refers to a controllable inclination towards work where work is important and fun, and a part of one's identity, yet not completely consuming (Vallerand et al., 2003). HP has been associated with a range of beneficial outcomes, including in-role performance, wellbeing, flow, organizational commitment, and positive affect (see Liu, Chen, & Yao, 2011). In contrast, obsessive passion (OP) refers to an internal pressure that forces the individual into working (Vallerand et al., 2003). With OP, the person also love their work and considers it part of her or his identity, but they also feel compelled to engage because of internal contingencies that come to control them (e.g. the need for social status or self-esteem; Vallerand et al., 2003). OP has been associated with a range of negative outcomes such as burnout, rumination, role conflict, and work/family conflict (Carpentier, Mageau, & Vallerand,

2012; Forest, Mageau, Sarrazin, & Morin, 2011; Thorgren & Wincent, 2013; Vallerand, Paquet, Philippe, & Charest, 2010).

Recently, researchers have addressed the need to investigate how this dualistic model fits in the organizational landscape (Ho, Wong, & Lee, 2011; Liu et al., 2011; Perrewé et al., 2013). The dualistic model of passion was introduced to fill a void in the extant literature on passion for activities (Vallerand et al., 2003); yet, to our knowledge, no study have rigorously investigated whether this void also exists in the work attitude literature and whether passion for work fills this void. Previous studies have shown how passion for work explains variance in work performance above and beyond job satisfaction, organizational commitment, work engagement, intrinsic and extrinsic motivation, and job identification (Ho et al., 2011; Liu, Chen, & Yao, 2010; Trépanier, Fernet, Austin, Forest, & Vallerand, 2013). However, despite this evidence of the discriminant and predictive validity of passion for work, there are important overlaps with other constructs that have yet to be empirically addressed. Particularly, work engagement and workaholism are two constructs that both have received a fair amount of attention in organizational psychology and that are conceptually parallel to HP and OP in several ways. The linkages between these constructs are still in the early stages of theory development (Ho et al., 2011; Liu et al., 2010; Trépanier et al., 2013; Vallerand & Houlfort, 2003), but seem not to have considered the fact that they might practically be the same. We thus argue that one of the main areas of this research should be to evaluate whether they are relevant or part of a construct proliferation (Le, Schmidt, Harter, & Lauver, 2010).

First of all, work engagement resembles both HP and OP, as it is defined as a positive, fulfilling, work-related state of mind where employees bring all their physical, cognitive, and emotional energies into work (Kahn, 1990; Trépanier et al., 2013). Furthermore, although OP can be related to negative experiences, employees with strong OP will still love their work and believe it to be fulfilling and important (Forest et al., 2011; Vallerand et al., 2006). Secondly,

workaholism resembles OP as it is defined as working excessively and obsessively (Ng, Sorensen, & Feldman, 2007; Taris, Schaufeli, & Verhoeven, 2005). The motivational underpinning of compulsive work has also been found to be related to controlled motivation (Van den Broeck et al., 2011), the same motivation associated with OP (Przybylski, Weinstein, Ryan, & Rigby, 2009). Accordingly, we set out to explore the validity of the dualistic model of passion for work by means of performing two separate studies.

The Present Research

To date, few empirical studies have subjected passion, work engagement, and workaholism to confirmatory factor analyses, and/or examined the relationships between them (Ho et al., 2011; Trépanier et al., 2013). This raises concerns about discriminant validity, and thus the main purpose of our first study is to shed light on these issues by subjecting the constructs to empirical scrutiny.

In addition, while passion for work has been found important for wellbeing and ill-being (Forest et al., 2012; Forest et al., 2011; Lavigne, Forest, & Crevier-Braud, 2012; Vallerand et al., 2010), studies have yet to empirically test the extent to which HP and OP for work actually explains variance in employee outcomes, above and beyond the closely related constructs of both workaholism and work engagement. Accordingly, the main purpose of our second study is to evaluate the predictive validity of harmonious and obsessive passion by examining whether these constructs explain variance in wellbeing (life satisfaction and burnout), in-role performance, and organizational citizenship behavior, above and beyond work engagement and workaholism.

In combination, our research should contribute to the extant literature in two distinct ways. First, it should clarify whether passion for work has a voice of its own in comparison to work engagement and workaholism. Second, by answering calls for research exploring the potential construct proliferation and redundancy in organizational psychology research (Le et

al., 2010; Rousseau, 2007), our study should contribute to increasing knowledge regarding whether the passion for work construct is a necessary or a redundant addition to the work attitude literature.

Conceptual Similarities and Differences

Passion and Work Engagement

Although there are conceptual similarities between passion for work and work engagement, they are conceptually distinct from a theoretical perspective. First and foremost, when one is passionate about work, work is also an integrated part of one's self-concept (Donahue, Rip, & Vallerand, 2009; Rip, Vallerand, & Lafrenière, 2012). This is not a prerequisite when employees are experiencing work engagement or workaholism. Although Kahn (1990) originally described work engagement as harnessing an employee's full self, this term was referring to employees' abilities to be physically, cognitively, and emotionally present, and was not linked to identity and self-concept per se.

When the relationship with work is harmonious, it has become part of the employee's identity because the work itself is fun and inherently gratifying. When the relationship is obsessive, work has become part of the employee's identity because work satisfies internal needs (superiority, self-esteem, social acceptance) that are linked to external gratifications (employees are dependent upon others to receive it; Amiot, Vallerand, & Blanchard, 2006; Bureau, Vallerand, Ntoumanis, & Lafrenière, 2013; Ho et al., 2011; Mageau, Carpentier, & Vallerand, 2011). Work engagement, on the other hand, concerns experiences at work and, although studies show that engaged employees are also activated by intrinsic motives (van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012), it seems as if they are not necessarily activated by their work's relevance to their self-concept and identity. In contrast to work engagement, the passion for work model draws upon all of the foundations of Self-Determination Theory instead of only focusing on the motivational underpinnings of activity engagement. This includes Basic Need

Theory, which explains why employees might internalize values and work that are not initially interesting, as well as Organismic Integration Theory, which explains how work becomes part of the employee's identity (Vallerand & Houlfort, 2003; Vallerand et al., 2003).

Secondly, work engagement is defined as "*moments* of task performances" (Kahn, 1990, p. 693) where employees bring all of their physical, cognitive, and emotional energies into work. It has also been conceptualized as a positive, fulfilling, work-related *state of mind* that is relatively enduring, but still related to what energies are invested at work and what is experienced while working (Christian, Garza, & Slaughter, 2011; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Recent research has also shown how levels of work engagement can fluctuate on a weekly or daily basis, depending on experiences during the day (Breevaart, Bakker, Demerouti, & Hetland, 2012; Kühnel, Sonnentag, & Bledow, 2012; Sonnentag, Mojza, Demerouti, & Bakker, 2012). These results underline the understanding of engagement as experiences at work that are relatively stable, but will fluctuate based on daily changes.

Passion, on the other hand, is defined as an inclination towards work that is described as a stable, non-fluctuating relationship with work (Birkeland & Nerstad, 2014; Carbonneau, Vallerand, Fernet, & Guay, 2008). According to recent findings, passion for work can only change after specifically targeted interventions and is thus not susceptible to fluctuations depending on daily experiences (Forest et al., 2012). Work engagement might then reflect the intensity of experiences while *at* work, whereas passion for work reflects the quality of the relationship *with* work in general. This conceptualization is also supported by recent findings in the organizational psychology literature (Ho et al., 2011; Trépanier et al., 2013). The two concepts are thus not mutually exclusive but describe two separate processes. Passion for work describes the relationship with work that may also define how employees identify with and

think about work both when present or absent from it, while engagement primarily describes the experiences employees have while at work.

Passion and Workaholism

Passion for work is also similar to workaholism, which is increasingly popular among researchers, largely due to Schaufeli and colleagues' definition of workaholism as two components: (1) spending many hours on one's work, and (2) being unable to detach from work (del Líbano, Llorens, Salanova, & Schaufeli, 2010; Schaufeli, Taris, Bakker, & Burke, 2006b; Schaufeli, Taris, & van Rhenen, 2008; Taris et al., 2005). Still, there are two important differences between OP and workaholism that should be noted.

First, workaholics do not necessarily love or enjoy the nature of their job, which is very important in OP. In their original work Spence and Robbins (1992, p. 162) defined a workaholic as "a person who exhibits three properties in comparison to others, the workaholic is highly work involved, feels compelled or driven to work because of inner pressures, and is low in enjoyment of work." While workaholics work obsessively and excessively, but do not love their job (Graves, Ruderman, Ohlott, & Weber, 2012), employees with strong OP will work a lot and have trouble detaching from work, but they do so because they love their work (or at least what the work provides them) (Donahue et al., 2012). This brings us to the other notable difference between workaholism and OP.

Whereas both constructs are concerned with the notion of obsession, workaholics seem to be addicted to *working* (the verb), whereas employees with strong OP seem to be addicted to their particular line of work (the noun) and what it can give them. From the earliest definition from Oates (1971), workaholism has been non-directional in its conceptualization. Theories on workaholism are traditionally more focused on employees' needs to feel busy in general, rather than whether they are particularly absorbed in their line of work. As Ng and colleagues (2007, p. 114) put it, "passion for working provides workaholics with the impetus to dedicate much of

their time and energy to their work and to persevere in spite of setbacks." This suggests that passion for work again should be considered as the *relationship* one has with work, and that workaholism is the *behavior* that emanates from certain passion. Such an association was also proposed by Ho and colleagues (2011). In Taris et al. (2005) definition, the compulsion sub-dimension has an emotional side to it, for example feeling guilty when not working. However, these feelings pertain primarily to the incentive to work hard ("It is important for me to work hard even when I don't enjoy what I'm doing") and not to the loss of control that is the basis for obsessive passion ("This job is the only thing that turns me on"). Furthermore, and similarly to the difference between passion for work and work engagement, the passion for work model entails more mechanisms for why the person is addicted to work, whereas workaholism only measures addiction in itself.

The Predictive Validity of Passion for Work

In order to assess the predictive validity of HP and OP, workaholism, and work engagement, we investigate their relationships with four sets of variables. To have predictive validity, harmonious and obsessive passion should both explain the variance relevant outcomes; beyond simply work engagement and workaholism. Passion, engagement, and workaholism have all received extensive research with respect to their role in explaining individual differences in both wellbeing and performance (Christian et al., 2011; Forest et al., 2012; Ho & Pollack, 2014; Ng et al., 2007; Park, Baiden, Jacob, & Wagner, 2009). Unfortunately, this has not been done while taking the other constructs into consideration and thus we wanted to include some of the same measures to see if the assumptions of discriminant validity holds. The added notion of identity might, for example, allow passion to explain more of the variation of individual experiences at work. Similarly, being addicted to the work itself, and not just staying busy, should also add more knowledge when investigating performance or well-being. When added to a model in which work engagement and workaholism already illuminate parts of the

individual's experience, the passion construct should thus tell us more about individuals' cognitive, emotional or behavioral experiences. We thus apply several of the same outcomes commonly used in this field of research while simultaneously controlling for the similar inputs.

Passion for Work and Wellbeing

Burnout. Burnout is defined as a syndrome of exhaustion, cynicism, and lack of professional efficacy (Maslach, 1982). It is traditionally used as a measure of ill-being and has negative consequences for employees and organizations, such as decreased job performance and higher turnover rates (for an overview, see Halbesleben & Buckley, 2004).

HP is associated with a healthy interest in the job and gives employees a sense of volition and autonomy (Vallerand et al., 2003). This makes it easier to detach from work (Philippe, Vallerand, & Lavigne, 2009; Thorgren & Wincent, 2013), and this ability to detach appears important in protecting against burnout (Sonnentag, Binnewies, & Mojza, 2010). In contrast, OP is associated with a rigid work relationship where employees continue their behavior despite related negative emotions (Amiot et al., 2006; Donahue et al., 2012; Mageau & Vallerand, 2007; Philippe et al., 2010; Vallerand et al., 2003). This inability to detach from work should thus be associated with burnout. In support, several studies suggest that HP for work negatively relates to burnout, whereas OP for work positively relates to burnout (Carbonneau et al., 2008; Lavigne et al., 2012; Stoeber, Childs, Hayward, & Feast, 2011; Trépanier et al., 2013; Vallerand et al., 2010).

Similar relationships have also been found with respect to work engagement and workaholism, where the former should be negatively related to burnout (Brauchli, Schaufeli, Jenny, Füllemann, & Bauer, 2013), and the latter should be positively related to burnout (Guglielmi, Simbula, Schaufeli, & Depolo, 2012; van Beek, Taris, & Schaufeli, 2011). We thus propose the following, first hypothesis.

Hypothesis 1: a) Harmonious passion is negatively related to, and b) obsessive passion is positively related to burnout when controlling for work engagement and workaholism.

Life satisfaction. Life satisfaction is a cognitive assessment of satisfaction with life circumstances and is considered a key indicator of subjective wellbeing (Erdogan, Bauer, Truxillo, & Mansfield, 2012; Linley, Maltby, Wood, Osborne, & Hurling, 2009). Life satisfaction has been found to be negatively related to burnout (Haar & Roche, 2010) and turnover intentions (Stiglbauer, Selenko, Batinic, & Jodlbauer, 2012), and positively related to performance (Ford, Cerasoli, Higgins, & Decesare, 2011).

The voluntary and personal endorsement of work as an important part of one's life is conducive to positive experiences, because the employee is able to be fully engrossed in work when necessary, but they experience no guilt when they are not fully engrossed, whether at work or at home (Lafrenière, St-Louis, Vallerand, & Donahue, 2012; Vallerand, 2012). The overall positive experience of balancing work and leisure in a meaningful way should relate positively to life satisfaction. In contrast, the negative experiences of burnout, rumination, and negative affect that are associated with OP (Carpentier et al., 2012; Lavigne et al., 2012; Mageau & Vallerand, 2007; Marsh et al., 2013; Thorgren & Wincent, 2013) may relate to lower overall life satisfaction. In support of such theoretical arguments, previous empirical findings suggest that HP for work relates positively, whereas OP for work relates negatively, to life satisfaction (Marsh et al., 2013).

Further, studies have shown a positive relationship between work engagement and life satisfaction (Hakanen & Schaufeli, 2012; Schaufeli, Bakker, & Van Rhenen, 2009), and negative relationships between workaholism and life satisfaction (Bonebright, Clay, & Ankenmann, 2000) and overall wellbeing (del Líbano et al., 2010; Schaufeli et al., 2008). Consequently, we propose the following hypothesis:

Hypothesis 2: a) Harmonious passion is positively and b) obsessive passion is negatively related to life satisfaction when controlling for work engagement and workaholism.

Passion for Work and Work Performance

The studies that have investigated the role of harmonious and/or obsessive passion for work vis-à-vis in-role performance suggest that HP is positively related, whereas OP is either unrelated or negatively related to in-role performance (Ho & Pollack, 2014; Ho et al., 2011; Liu et al., 2010). With respect to HP, this is because it provides the employees with the ability to remain concentrated and focused throughout the workday, as well as a range of positive work-related experiences such as positive affect and work satisfaction (Carpentier et al., 2012; Forest et al., 2011; Ho et al., 2011; Philippe et al., 2010). This is then assumed to be beneficial for performance. A recent study also found that entrepreneurs with high levels of HP were better at creating a good network, got more referrals, and, subsequently, a higher income (Ho & Pollack, 2014). With respect to OP, there is no previous research that indicates that OP in itself should lead to work performance. When taking into account results from studies outside of work it seems as though being obsessively passionate for work may lead employees to work hard and subsequently perform well due to the time and energy they put down. They might also adopt mastery goals that are consequently related to performance (Bonneville-Roussy, Lavigne, & Vallerand, 2011; Vallerand et al., 2008; Vallerand et al., 2007). The same individuals seem, however, to simultaneously adopt performance-avoidance goals that are less conducive to performance (Bonneville-Roussy et al., 2011; Vallerand et al., 2007). Finally, Bélanger, Lafrenière, Vallerand, and Kruglanski (2013) found OP to be positively related to performance only when exposed to failure information. This suggests that employees with strong obsessive passion would only perform well under certain circumstances or through specific processes. Because we in this study are interested in the predictive validity of passion over work

engagement and workaholism, we focus on the linear, non-moderated relationships and thus assume OP to be unrelated to in-role performance.

Studies on work engagement have found it to be positively associated with in-role performance (Christian et al., 2011; Ho et al., 2011), whereas studies on workaholism have found it to be unrelated to in-role performance (Graves et al., 2012; Schaufeli et al., 2006b; Shimazu, Schaufeli, & Taris, 2010). We therefore hypothesize the following:

Hypothesis 3: Harmonious passion is positively related to in-role performance when controlling for work engagement, workaholism, and obsessive passion.

Passion for Work and Organizational Citizenship Behavior

No studies have investigated whether harmonious and obsessive passion for work is associated with organizational citizenship behavior (OCB). OCBs are defined as acts that go beyond the job descriptions and include behaviors such as helping others, working more than expected, or getting involved in company activities (Organ, Podsakoff, & MacKenzie, 2006; Podsakoff, Whiting, Podsakoff, & Blume, 2009). Researchers have suggested that HP in particular could be associated with higher levels of OCB (Ho et al., 2011; Robertson & Barling, 2013). This is because employees with strong HP should have high quality interpersonal relationships with their coworkers (Philippe et al., 2010), and might be able to assess the needs of and subsequently want to help their organization and its people. On the other hand, strong levels of OP may also indicate an internal pressure to perform OCBs. This is not because employees with strong OP see the need to help their organization and its people, but because they experience it as a way to increase their self-esteem. With strong OP, employees' often have a need to feel superior to others. This is because their self-esteem is contingent upon performance, social acceptance, or status among their peers (Lafrenière, Bélanger, Sedikides, & Vallerand, 2011; Mageau et al., 2011). By engaging in helping behaviors they might feel

better about themselves because they then are in a situation where they feel superior, competent, or idolized.

With respect to work engagement, studies have found positive relationships with OCB (Halbesleben, Harvey, & Bolino, 2009; Sulea et al., 2012) and the same relationship has been suggested by studies on workaholism (Schaufeli et al., 2006b). We thus hypothesize the following:

Hypothesis 4: a) Harmonious passion and b) obsessive passion are positively related to OCB when controlling for work engagement and workaholism.

Method

Samples and Procedure

Information on the study designs, samples, procedures, and questionnaires for both studies was evaluated and approved by the Norwegian Social Science Data Services (NSD). All scales applied in the study have been translated into Norwegian using blind back-translation (Cascio, 2012). Study 1 was conducted for the purposes of investigating convergent and discriminant validity, whereas study 2 was performed for the purposes of testing the hypotheses and evaluating predictive validity. The details of each study are presented below.

Study 1

Respondents were drawn from two different organizations located in Norway: one hospital and service employees in four municipalities. Because of issues of anonymity, we were not allowed to obtain email addresses; therefore, a link to a questionnaire by a web-based tool (Confirmit) was distributed to supervisors in the organizations. The supervisors then forwarded the link to their employees. Of the 385 respondents, 76% were women and 24% were men. Their average age was 45 years, and they worked an average of 36.5 hours per week. Their average organizational tenure was 12, years. With respect to educational level, 75% of

respondents held a university degree requiring three years' study or more. In this study, again due to issues of anonymity, only self-reports of performance were obtained.

Measures

All items but workaholism were scored on a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). Similarly, employees rated workaholism on a scale ranging from never (1) to always (7).

We measured passion for work using the Passion Scale, which consists of 12 (six each) items measuring HP (α=.86) and OP (α=.75), respectively (Vallerand et al., 2003). It has also previously demonstrated satisfactory reliability on both scales with alphas ranging from .83 - .89 (HP) and .74 - .88 (OP; Forest et al., 2011; Ho & Pollack, 2014; Houlfort, Philippe, Vallerand, & Ménard, 2014). HP was measured by items such as "My work is well integrated in my life," and OP was measured by items such as "My work is the only thing that really turns me on."

We assessed workaholism using the short version of DUWAS (α=.87) which consists of 10 items and included items such as "I find myself continuing to work after my co-workers have called it quits," and "I feel obliged to work hard, even when it's not enjoyable" (del Líbano et al., 2010). The scale consists of two subscales, excess and compulsion, but the two scales are traditionally highly correlated and is often combined into one dimension (e.g. del Líbano et al., 2010; van Beek et al., 2012). It has also previously demonstrated satisfactory reliability with alphas in the range of .75 -.81 (del Líbano et al., 2010).

To measure work engagement, we used the 18-item scale by Rich, Lepine, and Crawford (2010), which includes items such as "I feel energetic at my job," and "At work, I pay a lot of attention to my job." The scale consists of three subscales; physical (α=.93), cognitive (α=.92), and emotional engagement (α=.96) and have thus demonstrated satisfactory internal consistency (Rich et al., 2010). This scale was chosen because the more popular scale, UWES

(Schaufeli, Bakker, & Salanova, 2006a) includes items that, according to Rich et al. (2010), tap respondent perceptions of the level of meaningfulness (dedication and vigor) and challenge (vigor and absorption) of work and thus confound engagement with the antecedent conditions suggested by Kahn (1990).

Analyses

To determine whether items reflect the constructs they are intended to measure researchers typically perform either a confirmatory factor analysis (CFA) or an exploratory factor analyses (EFA). While the use of EFA is recommended for validation purposes because it shows how well the items load on the non-hypothesized factors (Kelloway, 1995), the use of CFA is recommended when there is some basis for testing the *a priori* hypothesized structure of the data (e.g., Hurley et al., 1997). However, CFAs may be overly restrictive in that items are allowed to load on only one factor (Marsh et al., 2009). In fact, not incorporating nonzero cross-loadings can significantly bias relationships among the factors, usually resulting in overestimated factor correlations (e.g. Asparouhov & Muthén, 2009; Marsh et al., 2009; Marsh et al., 2013). Because the purpose of Study 1 was to investigate the convergent and discriminant validity of the passion scales in relation to work engagement and workaholism, this issue was particularly relevant. Accordingly, following Marsh et al (2013) we performed both a CFA and an exploratory structural equation model (ESEM) with the expectation that the ESEM model will result in better fit indices and lower correlations between the factors than the corresponding CFA model. The most crucial distinction between the CFA approach and the ESEM approach is that all factor loadings are estimated in the latter, which provides a better representation of the data, and results in much more differentiated (i.e. less correlated) latent factors since ESEM "...uses two estimates of overlap between factors (overlap in factor loadings and correlation between factors), whereas CFA uses only one (correlation between factors)" (Marsh et al., 2013, p. 5). Following Kuvaas, Buch, Dysvik, and Haerem (2012), and Marsh, et al. (2013) we

integrated the MIMIC (Multiple Indicator Multiple Cause) structure in the CFA and ESEM analyses to control for sample heterogeneity (cf. Bollen, 1989; Muthén, 1989). Because "ordinal variables are not continuous and should not be treated as if they are" (Jöreskog, 2005, p. 10), we used the weighted least squares (WLSMV) estimator of the Mplus program (Muthén, du Toit, & Spisic, 1997), which can accommodate the ordinal data (e.g., Flora & Curran, 2004).

Results Study 1

In the MIMIC-CFA and MIMIC-ESEM models we tested (N = 385), we regressed the full scales of a six-factor model representing HP, OP, workaholism, emotional engagement, cognitive engagement, and physical engagement on the control variables: hours worked per week, gender (women = 1; men = 2), age, tenure (years worked in the organization), education (1=lower high, 2= upper high, 3=bachelor, 4=master, 5=PhD), employment status (permanent = 1; temporary = 2), and organizational affiliation (represented by two dummy variables). The results of the CFA solution suggested a relatively good fit to the data (χ^2 [963] = 1856.82, p < 0.05; RMSEA = 0.068; CFI = 0.95; TLI = 0.94), thus providing initial support for our measurement model. Furthermore, the ESEM solution provided even better fit (χ^2 [793] = 1188.49, p < 0.05; RMSEA = 0.036; CFI = 0.99; TLI = 0.99) as expected on the basis of prior research (e.g. Marsh et al., 2013). The CFA and ESEM solutions are presented in Table 1. When considering both solutions together, they resulted in a very similar pattern of factor loadings, providing further evidence of convergent and discriminant validity.

The ESEM results demonstrated several cross-loadings for the six factors extracted. However, a closer inspection revealed that the cross-loadings could mostly be attributed to the three engagement subscales (see Table 1 for details). The HP items all had substantial loadings on the appropriate factor, but item 6 ("The new things that I discover with this job allow me to appreciate it even more.") and item 9 ("This job allows me to live a variety of experiences") also had meaningful loadings (i.e. >.30; Ford, MacCallum, & Tait, 1986) on the emotional

engagement factor. These two items are concerned with the extent to which the job provides new experiences and discoveries, which is similar to certain aspects of emotional engagement such as being interested and excited about one's job. Furthermore, all the OP items loaded on the appropriate factor. However, item 14 ("This job is so exciting that I sometimes lose control over it") had a meaningful loading on the workaholism factor. Finally, OP item 15 ("I have the impression that my job controls me") had a meaningful negative factor loading on the HP factor.

Insert Table 1 about here

Insert Table 2 about here

We report the means, standard deviations, and factor correlations of the ESEM and CFA solutions in Table 2. Consistent with our expectations the ESEM solution resulted in much more differentiated (less correlated) factors. For instance, while the factor correlation between harmonious passion and emotional engagement was .77 ($p < .01$) with the CFA solution, it was .44 ($p < .01$) with the ESEM solution. Similarly, the correlation between obsessive passion and workaholism, which was .65 ($p < .01$) with the CFA solution, was .33 ($p < .01$) with the ESEM solution.

In sum, although there were a few overlaps of certain items, the pattern of factor loadings and factor correlations of the CFA and ESEM solutions provided support for the convergent and discriminant validity of harmonious and obsessive passion for work in relation to work engagement and workaholism (cf. Bernerth, Armenakis, Feild, Giles, & Walker, 2007; Hurley et al., 1997; Liden & Maslyn, 1998).

Finally, we note that in the MIMIC-CFA model we estimated, HP was significantly predicted by gender ($\gamma = -.17$, $p < .05$), age ($\gamma = .14$, $p < .05$), and tenure ($\gamma = .13$, $p < .05$),

which suggests that HP increases with age and tenure, and is more common among female employees. OP on the other hand, was significantly predicted by hours worked ($\gamma = .12$, $p < .05$), indicating that OP increases with an increasing workload (although the relationship may be reverse).

Study 2

The purpose of our second study was twofold. First, because the factor analytical techniques we used in Study 1 could have resulted in sample-specific factors (Hinkin, 1998), the first purpose of Study 2 was to cross-validate the findings of Study 1 using an independent sample. The second purpose of Study 2 was to test the hypotheses and evaluate predictive validity by means of a cross-lagged study with two periods of data collection.

Sample and Procedure

The sample was drawn from a cross-lagged study in a Norwegian organization with a large base of administrative employees. All invited employees were assured that although their answers could be identified through their email address, and subsequently matched with their supervisor's evaluation; only the external researcher that collected the data would have access to the identifiable data, and only for a limited period of time before all data were anonymized. At time 1, a questionnaire was distributed to 411 employees by use of a web-based tool (Confirmit), which resulted in complete data from 223 employees and a response rate of 54%. At time 2, two months after the initial questionnaire's distribution, the supervisors of the responding participants were invited to evaluate their employees' performance and helping behaviors. A total of 58 supervisors completed the questionnaire, and each leader evaluated 3.02 members on average. As a result, the final sample consisted of 175 matched dyads. Of the respondents, 51% were women and 49% were men, with a mean age of 44.7 years. Their average organizational tenure was 9.59 years, and they worked an average of 40.2 hours per

week. With respect to educational level, 82% held a university degree of three years' study or more.

Measures

For the measurement of passion for work and workaholism, we used the same scales as in Study 1. The internal consistency was satisfying (HP=.83; OP=.82; Workaholism=.86) As in Study 1, all items but workaholism and burnout were scored on a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). Workaholism was scored on a scale ranging from never (1) to always (7), and burnout was scored on a seven-point Likert scale ranging from never (1) to every day (7).

In this study we applied the nine items from the Utrecht Work Engagement Scale (UWES; α=.91). Traditionally the internal consistency ranges between .80 and .90 (Demerouti, Mostert, & Bakker, 2010; Schaufeli et al., 2002). We applied this scale as UWES is the more popular scale (Schaufeli et al., 2006a) and includes items that tap respondent perceptions of the level of meaningfulness and challenge of work (absorption, dedication, and vigor; Rich et al., 2010). A work engagement scale with such items should thus be more similar to the passion for work items. Consequently, as we seek to rigidly test the discriminate validity of passion for work, we wanted to also include the scale that is the most popular and that should also be the most similar to passion. UWES included items such as "My job inspires me" (Schaufeli et al., 2006a).

Burnout symptoms were assessed with the 16-item Maslach Burnout Inventory – General Survey (MBI, Maslach, Jackson, & Leiter, 1996). The inventory assesses three subdimensions of burnout, namely: exhaustion, cynicism, and professional efficacy. Because recent research has illustrated that efficacy plays a different role in relation to the other two subscales, it was omitted from the following analyses (Bakker, Demerouti, & Euwema, 2005; Toppinen-Tanner, Kalimo, & Mutanen, 2002). The internal consitency of the total burnout scale

without professional efficacy has previously been satisfactory (.89; Van den Broeck, Lens, De Witte, & Van Coillie, 2013) and in the present study is was .85.

Life satisfaction was measured with five items by Diener, Emmons, Larsen, and Griffin (1985). One item example is, “In most areas my life conforms to my perceptions of what is ideal.” The internal consitency of this scale is typically between .82 (Arrindell, Heesink, & Feij, 1999) and .90 (Hakanen & Schaufeli, 2012), and in the present study is was .87.

To measure in-role performance, we asked supervisors to complete a 10-item scale adapted from Dysvik and Kuvaas (2011), and used by Kuvaas et al. (2012; α=.95). This scale measures in-role performance in terms of both employees’ work effort and work quality. The internal consitency of this scale was .95 in the present study.

For the measurement of OCB we asked supervisors to complete the seven-item helping behavior scale (Van Dyne & LePine, 1998) for their employees. An item example is “He/she helps orient new employees in this group.” The internal consitency of this scale is typically around .90 (Deckop, Cirke, & Andersson, 2003) to .93 (Kim, Van Dyne, Kamdar, & Johnson, 2013) and was .87 in the present study.

Because workload plays a role in citizenship behaviors and burnout (Beauregard, 2012; Ng & Feldman, 2008, 2010, 2011; Purvanova & Muros, 2010), we controlled for time spent at work. Finally, to rule them out as alternative explanations of our results, and to strengthen the internal validity of the study (Della Porta & Keating, 2008), we controlled for gender (female =1, male = 2), age, and tenure (years worked in the current organization).

Analyses

The data were analyzed in two phases. First, to cross-validate the findings of Study 1 and to further examine the construct validity of the scales, we estimated a MIMIC-CFA model (cf. Bollen, 1989; Muthén, 1989) with the use of the WLSMV estimator in Mplus (Muthén, et al., 1997). In addition, because the observations in the dataset are not independent (i.e.

employees clustered within different supervisors), we performed the MIMIC-CFA using cluster robust standard errors (at the supervisor level). The MIMIC-CFA was performed on the full scales of an eight-factor model representing OP, HP, workaholism, work engagement, burnout, life satisfaction, performance, and citizenship behavior.

Because the supervisors (n = 58) provided performance ratings for multiple subordinates (n = 175) our data may have resulted in a supervisor "effect" in our dependent variables. To account for these inherent supervisor-level effects and examine only the individual-level variance we used hierarchical multilevel modeling (HLM) to test our hypotheses (e.g. Harris, Wheeler, & Kacmar, 2011). Furthermore, ignoring the nested nature of the data would violate an assumption that standard statistical tests rely heavily on, which is the assumption of independence of the observations (e.g. Singer & Willett, 2003). The violation of this assumption may result in several spuriously "significant" results because the estimates of the standard errors would be biased using conventional tests (Hox, 2010).

These analyzes were performed using the procedure SPSS Mixed (SPSS 20).

Insert Table 3 about here

Results Study 2

Correlations, means, standard deviations and reliability of all study variables are reported in Table 3. The MIMIC-CFA model we tested demonstrated a tolerable fit to the data (χ^2 [2070] = 3226.04, $p < 0.05$; RMSEA = 0.05; CFI = 0.89; TLI = 0.88) when controlling for sample heterogeneity (i.e. by regressing the factors on the control variables: hours worked, age, gender, and tenure). Although the CFI (.89) and TLI (.88) was bordering to poor fit according to some stringent rule-of-thumb criteria, researchers have argued that CFI values decline with increasing model complexity, and in light of our sample size and the number of variables in our model the CFI value can be regarded as acceptable (Kenny & McCoach, 2003). Furthermore,

convergent validity was supported as all factor loadings were statistically significant, with a mean standardized loading of .76 (Anderson & Gerbing, 1988).

Because the employees are nested within supervisors, and thus non-independent, three hierarchical models were examined (Hox, 2010). Model 1 was the null model with only the intercept estimated (base level of the dependent variables). Although the results of this estimation indicated non-significant between-group variation in burnout or life satisfaction, the intraclass correlation coefficient (ICC) of the two wellbeing variables were .07 for burnout and .09 for life satisfaction. This suggests that 7% and 9% of the variation, in burnout and life satisfaction respectively, could be credited to variation in their supervisors (Hofmann, Griffin, & Gavin, 2000). The performance variables showed significant between-group variation in supervisor ratings of in-role ($\beta_0 = .32$, $p = .00$) and OCB ($\beta_0 = .19$, $p = .04$). Further, the ICC was .31 and .18 respectively, suggesting that 31% of the variation of in-role performance and 18% of the OCB could be credited to variation in supervisor ratings (Hofmann et al., 2000). To account for these small, yet important variations, we continued the hypotheses testing using HLM.

In Model 2, we entered the control variables, as well as engagement and workaholism. In Model 3, we added harmonious and obsessive passion to see if they explained additional variance in the dependent variables. With regard to burnout and life satisfaction, adding HP and OP significantly improved the model fit above the control variables as indicated by the decrease in model deviance (ΔAIC life satisfaction = 48.32, $p < .001$; ΔAIC burnout = 14.43, $p < .001$). We also included Pseudo R^2 statistics (Snijders & Bosker, 1999) to evaluate the effectiveness of the added variables to explain the between-individual variance (Kwok et al., 2008; Singer & Willett, 2003). This is particularly important because AIC is susceptible to sample size (la Du & Tanaka, 1989). Both Pseudo R^2s demonstrated increased variance. With respect to burnout and life satisfaction, the fit indices thus showed that Model 3 was significantly better than

Model 2, which means that HP and OP add additional variance in predicting exhaustion and life satisfaction.

Insert Table 4a and b about here

Hypotheses 1 stated that a) harmonious passion is negatively related to burnout, and b) obsessive passion is positively related to burnout when controlling for work engagement and workaholism. As Table 3a indicates, after having entered the control variables, work engagement and workaholism, burnout was significantly negatively related to HP (γ = -.18, p < .01), and significantly positively related to OP (γ = .29, p < .01). Accordingly, Hypotheses 1 was supported.

Hypotheses 2 stated that a) harmonious passion is positively related to life satisfaction, and b) obsessive passion is negatively related to life satisfaction when controlling for work engagement and workaholism. As Table 4a indicates, after having entered the control variables work engagement and workaholism, life satisfaction was significantly positively related to HP (γ = .19, p <.05), and significantly negatively related to OP (γ = -.27, p < .001). Accordingly, Hypotheses 2 was supported.

Hypothesis 3 stated that harmonious passion is positively related to in-role performance when controlling for work engagement, workaholism, and obsessive passion, hypothesis 4 stated that a) harmonious passion and b) obsessive passion are positively related to OCB when controlling for work engagement and workaholism. Neither of these hypotheses were supported. As indicated by Table 4b, harmonious and obsessive passion did not decrease model deviance (ΔAIC in-role performance= -3.95, *n.s.*; ΔAIC OCB = -3.31, *n.s.*) or increase Pseudo R^2, suggesting that these two variables did not predict variance in either in-role or OCB over and above engagement and workaholism.

Discussion

Because conceptual parallels exist between harmonious and obsessive passion for work with work engagement and workaholism, the main purpose of the present research was to psychometrically evaluate the construct validity of harmonious and obsessive passion. Overall, the results of the two studies were indicative of a valid and reliable measurement model of harmonious and obsessive passion. While the ESEM solution indicated some problematic cross-loadings between HP and work engagement and between OP and workaholism, convergent and discriminant validity was supported by the pattern of factor loadings and factor correlations of the CFA and ESEM solutions across two separate samples. This suggests that, although there may be some overlap between the constructs, they should be regarded as conceptually distinct. As such, our study contributes to the extant literature by clarifying the relationships between passion for work, work engagement, and workaholism.

To determine predictive validity, we also examined whether harmonious and obsessive passion explained variance in wellbeing (life satisfaction and burnout), performance, and OCB, above and beyond work engagement and workaholism. Here, the results demonstrated that harmonious and obsessive passion had predictive validity with respect to wellbeing (life satisfaction and burnout), but not with respect to performance and OCB. Accordingly, even though the findings were mixed, the passion for work construct seems to represent a unique addition to the work attitude literature, but particularly with respect to outcomes related to wellbeing. This result aligns well with research in cognitive psychology, which suggests that cognitive states, as opposed to general attitudes, are better predictors of particularly performance (Ackerman & Beier, 2003). Passion for work as a general attitude may thus carry more weight regarding employees' overall life evaluations than their cognitive states and behaviors at work. Still, such general attitudes may also spillover to work (Bowling, Eschleman,

& Wang, 2010) and might even result in higher (or lower) work performance (Judge, Thoresen, Bono, & Patton, 2001).

Furthermore, most studies that included performance as an outcome variable have found that the relationship between passion and performance is mediated by either the goals set, the persistence, engagement, or deliberation to meet these goals, and the experiences that follows the passion (Bonneville-Roussy et al., 2011; Ho & Pollack, 2014; Ho et al., 2011; Li, 2010; Vallerand et al., 2008; Vallerand et al., 2007). In the present context passion for work represents the general work attitude, whereas engagement and workaholism represent a cognitive state and behavior, respectively. The relationships between passion and performance might be better explained *through* the situational experiences one gets at work, i.e. engagement and workaholism. Accordingly, instead of considering passion for work, engagement, and workaholism to be equal antecedents of wellbeing and performance, we argue that passion for work could be an antecedent of engagement or workaholic behaviors.[1] In fact, in Kahn's (1990) original work on engagement he proposed that individual and organizational factors influence the psychological experience of work and that this experience drives work behavior. Trépanier et al. (2013) found a similar relationship where HP was found to mediate the relationship between job-demands and –resources and work engagement. Furthermore, Ho et al. (2011) found support for such a relationship between HP for work (as an individual factor) and in-role performance, where cognitive engagement (as the psychological experience of work) mediated between the two. However, our study does not provide support for such a model, as neither work engagement nor workaholism were associated with in-role performance when harmonious and obsessive passion were included in the analysis. We particularly expected work

[1] Post-hoc analyses using SEM revealed an acceptable fit (χ^2 [22.81] =, $p < 0.00$; RMSEA = 0.112; CFI = 0.97; TLI = 0.90) testing such a relationship. In this model workaholism and work engagement partially mediates the relationship between HP and OP and burnout and engagement. Direct paths were estimated between HP, work engagement, and burnout/wellbeing as well as between OP, work engagement/workaholism, and burnout/wellbeing.

engagement to be positively related to other-rated in-role performance based on previous meta-analytic results (Christian et al., 2011). The results suggest such a relationship when harmonious passion and obsessive passion are not accounted for, but when all variables are included they seem to cancel each other out. This lack of significant results might thus be due to the shared variance of work engagement and HP and OP, respectively. Our study shows that although they are distinct, these variables are also empirically overlapping, and this shared variance might reduce the possibility of detecting significant relationships.

This paper contributes to theory in two ways. First, we show that harmonious and obsessive passion for work is indeed distinct from work engagement and workaholism, despite its theoretical and empirical overlaps. Second, we find that passion for work is in fact a necessary addition to the work attitude literature, particularly with respect to explaining variance in employee wellbeing but not performance.

Limitations and Research Opportunities

The contributions of this study should be viewed in light of its limitations. First, as most other research on passion and performance included mediating variables, our study could have benefited from looking at the relationships through such a lens. Second, although the data of the second study were cross-lagged, thus satisfying the criterion of temporal precedence (Shadish, Cook, & Campbell, 2002), we are unable to infer any causal relationships or rule out possibilities of reversed causality. There might, for example, be gain (or loss) spirals at play in these relationships. Being harmoniously passionate for work is associated with positive affect (Philippe et al., 2010) which again is associated with performance (Kaplan, Bradley, Luchman, & Haynes, 2009). Being good at the job and receiving positive feedback might inspire employees to invest more of their identity into their work and make them love it even more. In a similar vein, negative performance feedback might strengthen the rigidness and resolve commonly found in employees with strong OP. They might be more motivated to prove

themselves and to get even more involved in their work. Future studies on passion and performance should investigate the degree to which such spirals or reverse causality exist.

Furthermore, owing to organizational restrictions in Study 1, we were not able to control for demographic variables such as gender, age, tenure, etc. Therefore, we cannot rule out the possibility that other variables are of importance with respect to passion, engagement, or workaholism. However, previous studies have revealed little demographic variance with respect to these three constructs (e.g. Taris, van Beek, & Schaufeli, 2012).

Because we only relied on survey measures, as well as same source data in our wellbeing outcomes, mono-method and same-source inflations between the independent and dependent variables might pose a threat to the validity of our results (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986). However, and in line with Podsakoff et al. (2003) recommendations, we have sought to reduce the potential influence of mono-method bias by introducing a time-lag between the measurements of the independent and dependent variable in Study 2. Although certain studies have been conducted with second source evaluations of wellbeing (e.g. Fritz, Yankelevich, Zarubin, & Barger, 2010), we still believe that employees themselves are best suited to evaluate how they feel. Moreover, a study on child wellbeing showed that parents tend to underestimate their child's worry and anxiety and overestimate their optimism (Lagattuta, Sayfan, & Bamford, 2012). Future research should perhaps include both self- and other-reports of wellbeing to evaluate whether second source evaluations of employee wellbeing are preferred over self-reports. Still, a strength of the present study is that we obtained performance ratings from different sources, in line with expert advice (Podsakoff et al., 2003).

Implications for Practice

Although these studies have their limitations, we still believe they merit a look at possible practical implications. First of all, increasing levels of absence among employees due to sickness and ill-health retirement poses an immense burden on the economy. Hence, since

passion for work seems important with respect to explaining variance in employee wellbeing, organizations may benefit from learning ways of increasing the HP and decreasing OP for work. One way of increasing HP was suggested by Forest et al. (2012). They conducted an intervention study where employees were taught how to develop and use their signature strengths at work. The study found that increases in the use of signature strengths were related to increases in HP, which in turn led to higher levels of wellbeing.

Another way of accomplishing HP at work could be through autonomy supportive supervision and organizations. Evidence from studies in education and sports suggests that environments that acknowledge individuals' emotions and thoughts and provide adequate structure and feedback, a meaningful rationale for tasks, and opportunities for decision-making are antecedents of HP for the given activity (Bonneville-Roussy, Vallerand, & Bouffard, 2013; Mageau et al., 2009). In contrast is an environment that places value on authority, pressure, and control associated with OP (Bonneville-Roussy et al., 2013; Mageau et al., 2009).

Overall, it seems as though organizations might benefit from creating an environment that as much as possible allows employees to be in control: to have control of what they are good at and how they can use it, and to organize their work in ways that are meaningful to them. This is supported by a wide range of studies that show how job control and autonomy are conducive to wellbeing (Alarcon, 2011; Crawford, LePine, & Rich, 2010).

Conclusion

In this study, we acknowledge the fact that the correlation between engagement, workaholism, and harmonious and obsessive passion as well as their correlation with other variables are so alike that some of them may be redundant (Cole, Walter, Bedeian, & O'Boyle, 2012; Le et al., 2010). We find that in predicting wellbeing, passion for work are not redundant

and might, in fact, be a better predictor of overall wellbeing than workaholism and work engagement. Unfortunately, there are still a number of constructs still proliferating and it is important to continue to take these issues into consideration. Not only controlling for similar constructs, but also dedicate full papers to investigating possible redundancies. For example, Cole et al. (2012) make an important contribution to the field by applying meta-analytical techniques to assess the extent to which job burnout and employee engagement are independent of each other. They find that the UWES scale on engagement is, in fact empirically redundant with the Maslach burnout measure. Schmidt, Le, & Oh (2010, p. 6) argue that "a science that ignores the mandate for parsimony cannot advance its knowledge base and achieve cumulative knowledge" (cited in Cole et al., 2012). In that case, the science of work attitudes has to acknowledge its weakness of construct proliferation and start putting its constructs to tougher tests.

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Table 1. CFA and ESEM factor solutions

	CFA solution						ESEM solution					
Item	HP	OP	PE	EE	CE	WH	HP	OP	PE	EE	CE	WH
HP4	.76						**.87**	-.01	.02	-.15	.19	-.01
HP6	.78						**.56**	.05	-.04	.36	-.08	-.02
HP8	.76						**.60**	-.06	.01	.21	.00	.14
HP9	.71						**.44**	.01	-.11	.35	.01	.04
HP11	.75						**.71**	.07	.23	.00	.04	-.14
HP13	.80						**.79**	-.03	-.01	.05	.09	.06
OP5		.71					-.02	**.62**	-.03	.09	.00	.17
OP7		.69					-.01	**.67**	-.05	-.04	.05	.17
OP10		.56					.20	**.76**	-.01	.10	-.10	-.19
OP12		.71					.18	**.70**	.07	.04	.03	.01
OP14		.80					-.02	**.37**	-.16	.07	.21	.34
OP15		.56					-.31	**.33**	-.04	-.06	.18	.28
PE1			.90				-.04	.10	**.15**	.58	.28	.01
PE2			.92				.01	-.01	**.33**	.41	.32	.13
PE3			.84				-.04	.13	**.22**	.66	.09	-.04
PE4			.87				-.04	-.01	**.61**	.43	.09	.01
PE5			.88				.04	-.02	**.63**	.29	.19	.01
PE6			.86				-.08	-.00	**.28**	.49	.23	.17
EE7				.89			.14	-.03	.15	**.70**	.02	.08
EE8				.88			.14	.12	.02	**.73**	.09	-.15
EE9				.83			.20	-.04	-.02	**.71**	.01	.11
EE10				.81			.12	-.05	.28	**.58**	.03	-.06
EE11				.85			.32	.00	-.01	**.72**	-.03	-.04
EE12				.84			.27	.00	-.16	**.80**	-.01	-.00
CE13					.92		.08	-.01	-.05	.03	**.91**	.03
CE14					.95		-.04	-.00	.07	.14	**.84**	-.03
CE15					.96		.04	.02	.03	.15	**.83**	-.03
CE16					.86		-.02	.13	.01	.46	**.41**	.08
CE17					.95		-.00	.02	.02	.13	**.87**	-.05
CE18					.93		.10	-.02	.09	-.02	**.88**	.04
WH1						.69	-.17	.01	-.07	.21	.03	**.66**
WH2						.67	.11	.19	-.07	-.08	.20	**.57**
WH3						.72	.03	-.02	.48	.01	-.02	**.55**
WH4						.73	.05	-.15	.02	.29	-.01	**.70**
WH5						.80	.09	.09	.30	.07	-.03	**.63**
WH6						.69	-.03	-.04	-.01	.11	.10	**.65**
WH7						.56	-.17	.05	.14	-.06	.03	**.61**
WH8						.58	.02	.13	.06	.09	-.11	**.60**
WH9						.53	-.02	.36	.15	-.12	-.06	**.46**
WH10						.64	-.11	.48	.08	-.08	.02	**.44**

Note. N = 385. HP = harmonious passion; OP = obsessive passion; PE = physical engagement; EE = emotional engagement; CE = cognitive engagement; WH = workaholism.

CFA model fit: χ^2 [963] = 1856.82, $p < 0.05$; RMSEA = 0.068; CFI = 0.95; TLI = 0.94.
ESEM model fit: χ^2 [793] = 1188.49, $p < 0.05$; RMSEA = 0.036; CFI = 0.99; TLI = 0.99.

Table 2. ESEM and CFA Solutions: Factor correlations

	Mean	*SD*	1	2	3	4	5	6
1. Harmonious passion	4.93	.99		.03	.47**	.43**	.77**	.01
2. Obsessive passion	2.38	.91	-.06		.35**	.38**	.23**	.65**
3. Physical engagement	5.40	.92	.09	-.00		.89**	.84**	.52**
4. Cognitive engagement	5.27	1.02	.18*	.24**	.53**		.75**	.48**
5. Emotional engagement	5.12	.99	.44**	.18**	.37**	.68**		.28**
6. Workaholism	3.71	1.10	-.15*	.33**	.17**	.30**	.18*	

Note. $N = 385$.
Factor correlation based on the ESEM solution displayed below the diagonal.
Factor correlations based on the CFA solution displayed above the diagonal.

Table 3 Study 2 Means, Standard Deviation, Correlation, and Reliability of all Study Variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Tenure	9.59	8.83												
2. Hour/Week	40.21	9.58	-.05											
3. Age	44.17	11.19	.62**	.03										
4. Gender	1.49	.50	-.03	.21**	.01									
5. HP	5.41	.89	-.08	.04	-.02	-.05	(.83)							
6. OP	2.7	1.10	-.05	.24**	-.06	.19**	.11	(.82)						
7. Engagement	5.08	.94	-.04	.13	-.00	-.02	.66**	.33**	(.91)					
8. Workaholism	3.86	1.07	-.23**	.31**	-.23**	.15*	.08	.67**	.31**	(.86)				
9. Burnout	2.18	.81	-.13	-.02	-.19**	.08	-.53**	.30**	-.54**	.28**	(.85)			
10. Life Satisfaction	4.84	1.05	-.05	.05	.02	.05	.44**	-.12	.47**	-.06	-.48**	(.87)		
11. In-role	5.54	1.01	-.09	.24**	-.19*	-.09	.10	.06	.15*	.10	-.13	.20**	(.95)	
12. OCB	5.11	1.05	.00	.23**	-.09	-.17*	.09	-.01	.15*	-.04	-.25**	.24**	.56**	(.87)

N = 175, **p < .01,*p < .05, female = 1, male = 2

Table 4a Wellbeing

	Burnout						Life Satisfaction					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Variable	B	SE	B	SE	β	SE	β	SE	B	SE	β	SE
Intercept	2.24***	.08	3.71***	.40	4.41***	.42	4.84***	.08	2.67***	.49	1.97***	.52
H/w			-.01	.01	-.01	.01			.00	.01	.01	.01
Gender			.10	.10	.17	.10			-.17	.12	-.23*	.12
Tenure			.00	.01	.00	.01			-.01	.01	-.01	.01
Age			-.00	.01	-.01	.01			.00	.01	.00	.01
Engagement			-.62***	.06	-.55***	.07			.61***	.07	.53***	.09
Workaholism			.54***	.05	.32***	.06			-.26***	.06	-.06	.78
HP					-.18**	.07					.19*	.09
OP					.29***	.06					-.27***	.07
AIC (npar)	539.65(1)		383.17(6)		334.84(8)		655.58(1)		595.43(6)		581.00(8)	
ΔAIC			156.48***		48.32***				60.15***		14.43***	
PseudoR^2			.51		.62				.21		.27	
ICC	.07						.09					

N = 175, ***p < .001, **p < .01,*p < .05, †<.08 female = 1, male = 2

Table 4b Performance and OCB

	In-role						OCB					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Variable	B	SE	B	SE	β	SE	β	SE	B	SE	β	SE
Intercept	5.58***	.10	4.91***	.56	4.86***	.61	5.17***	.10	4.46***	.60	4.55***	.66
H/w			.02**	.00	.02**	.01			.03***	.01	.03***	.01
Gender			.19	.13	.19	.13			.39**	.14	.41**	.14
Tenure			.01	.01	.01	.01			.01	.01	.01	.01
Age			-.03**	.01	-.03**	.01			-.02**	.01	-.03**	.01
Engagement			.15*	.07	.14	.10			.15	.08	.14	.11
Workaholism			-.19	.13	-.00	.08			-.14*	.07	-.18*	.09
HP					.02	.10					.00	.11
OP					-.01	.08					.07	.08
AIC (npar)	482.22(1)		465.66(6)		469.60(8)		509.28(1)		488.48(6)		491.79(8)	
ΔAIC			16.56***		-3.95				20.80***		-3.31	
PseudoR^2			.17		.17				.18		.19	
ICC	.31						.18					

N = 175, ***p < .001, **p < .01,*p < .05, †<.08 female = 1, male = 2