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Burnout, work engagement and workaholism in a group of Dutch judges: distinctiveness and two-year structural stability

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The aim of this two-wave study is to investigate whether burnout, work engagement and workaholism can be empirically distinguished in one model and whether this model shows structural stability over a period of 2 years (i.e. whether the distinguishability between the constructs holds across time). The study was conducted among 118 judges in the Netherlands who completed questionnaires measuring burnout, work engagement and workaholism. The results showed that these are relatively distinguishable constructs, despite a considerable overlap of professional efficacy loading on work engagement (instead of burnout; as hypothesized), absorption loading on workaholism (in addition to work engagement; as hypothesized) and exhaustion loading on workaholism (in addition to burnout), which represents a new finding. These extra loadings led to model modifications, which were found at both time points. As hypothesized, this model appeared to be stable over time. Nevertheless, further clarification and conceptualization of these constructs are undoubtedly needed.

Keywords: burnout; distinctiveness; factor loading; judges; longitudinal design; structural equation modeling; structural stability; well-being; workaholism; work engagement.

Research into the construct validity of burnout, work engagement and workaholism has a long tradition, but findings also show contradictions. On the one hand, these three constructs are assumed to be distinct from each other and have been proven to be sufficiently valid and reliable (burnout, Schaufeli & Bakker, 2007; work engagement, Schaufeli, Bakker, & Van Rhenen, 2009; workaholism, Littman-Ovadia et al., 2014). On the other hand, the distinctiveness or independence of these constructs has been criticized by leading researchers (Schaufeli, Taris, & Van Rhenen, 2008). More specifically, some dimensions of the constructs loaded (partially) on constructs other than those expected. For example, it turned out that one of the manifest variables of the latent factor burnout, namely professional efficacy, loaded on work engagement and not on burnout. Although cross-sectional research largely underscored the near distinctiveness of these constructs (burnout, Schaufeli & Bakker, 2007; work engagement, Schaufeli, Bakker, & Van Rhenen, 2009; workaholism, Littman-Ovadia et al., 2014), Schaufeli, Taris, & Van Rhenen (2008) recommended investigation of the internal validity of the three constructs longitudinally. In this way, the stability of their

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distinctiveness over time could be demonstrated. Evidence supporting these results may be important for understanding and conceptualizing these three constructs, reflecting a possible refinement in the definition, for the purpose of improving their distinctiveness.

To date, the proposed longitudinal study has not yet been conducted. Therefore, the current study builds on the recommendation of Schaufeli, Taris, & Van Rhenen (2008) by investigating the two-year stability of the structure of a model that includes the interrelationships between the three latent factors burnout, work engagement and workaholism. More specifically, this study first aims to replicate the studies of Schaufeli, Taris, & Van Rhenen (2008) and Schaufeli, Shimazu, & Taris (2009) by investigating the distinctiveness of burnout, work engagement and workaholism in one model. The second aim is to investigate the stability of the structure of burnout, work engagement and workaholism in one model over two years using two measurement waves. It is expected that (a) the constructs will be sufficiently distinctive and that (b) the structure of the three constructs will remain the same over time. To explore the distinctiveness of the three constructs, it was important to involve hard-working participants, as all these concepts are related to hard work. An example of employees who work hard are judges. It is known that Dutch judges have a high workload and work pressure (Van Duijneveldt et al., 2017; see also Hagen & Bogaerts, 2014), and this special target group was therefore included in the current study.

Burnout, work engagement and workaholism

Burnout can be described as 'a state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's capacity to perform' (Maslach et al., 1997, p. 20, as cited in Schaufeli, Leiter, & Maslach, 2009). Exhaustion (feelings of exhaustion caused by work before the day starts), cynicism (a cynical reaction to work) and professional efficacy (feelings of incompetence at work) are the three main dimensions of burnout (Leiter & Maslach, 2019; Schaufeli & Bakker, 2007). There are several causes of burnout, such as work pressure and working long hours. Symptoms can appear after a period of heavy and chronic workload. Burnout manifests itself gradually and very often individuals are unaware of this development.

The second construct is *work engagement,* which received attention through the field of positive psychology (Bakker, 2009). Work engagement has been described as 'a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption' (Schaufeli, Salanova, et al., 2002, p. 74). This tripartite conceptualization of work engagement is derived from the burnout literature. Vigor refers to a high level of energy and the will to work hard for hours. Dedication means that involvement in the work leads to inspiration and challenge. Finally, absorption is the mood that can be characterized as being immersed in work and unable to stop (Schaufeli & Bakker, 2007). Engaged workers display hard-working behavior (Schaufeli, Taris, & Van Rhenen, 2008; Van Beek et al., 2011).

In the second half of the twentieth century, the labor force became more acquainted with *workaholism*, the third construct in this study. This can be described as 'the tendency to work excessively hard (the behavioral dimension) and being obsessed with work (the cognitive dimension), which manifests itself in working compulsively' (Schaufeli, Shimazu, & Taris, 2009, p. 322). Thus, working excessively and working compulsively reflect the two main dimensions. Workaholics are individuals who work much harder than their colleagues and exceed the required labor production standards (Schaufeli, Taris, & Bakker, 2008). They are not rewarded for their hard work; their motivation can be explained as an inner drive and a personal obligation to

themselves (Shimazu et al., 2019; Taris & Schaufeli, 2007). They have difficulty disconnecting from work and often think about work after office hours.

The distinctiveness of burnout, work engagement and workaholism

Although these three constructs are generally considered independent of each other, both theoretically and empirically, there is also research showing that several dimensions of constructs load (partially) on constructs other than those expected. For example, the dimension professional efficacy loaded on work engagement, but not on burnout as would have been expected (Schaufeli, Taris, & Van Rhenen, 2008). This dimension plays a different independent role compared to exhaustion and cynicism, which are the core dimensions of burnout (González-Romá et al., 2006; Green et al., 1991). Another example was that the dimension absorption contributed to work engagement (as expected), but also to workaholism (Schaufeli, Taris, & Van Rhenen, 2008; Taris et al., 2010). Absorption refers to a commitment to work that represents hard work and difficulty to stop working. These people often do not pay attention to what is happening in their immediate environment. However, the underlying reason for working hard is fundamentally different; engaged people have an intrinsic sense of pleasure to work hard and lack the compulsive drive of workaholics, while workaholics are driven by work. Finally, Schaufeli, Taris, & Van Rhenen (2008) found in their research a complex, multi-faceted structure of burnout, work engagement and workaholism in one model, but despite some doubts they concluded that these constructs were distinct.

However, Taris et al. (2017) found no conclusive evidence for the distinction between the two core dimensions of burnout (exhaustion and cynicism) and those of work engagement (vigor and dedication); nor was there conclusive evidence for a model in which the four dimensions together belonged to one overall construct. Despite correlational and factor analytical research, Taris et al. (2017) concluded that there is no evidence that burnout and work engagement are empirically distinctive, nor that they are part of a single underlying factor. The findings of the previously mentioned researchers do indeed seem contradictory, but in fact all researchers came to the same conclusion about the relationships between burnout, work engagement and workaholism, albeit from different perspectives, namely that the delineation of the constructs is not completely clear.

In addition to the empirical studies mentioned earlier, theories regarding burnout, work engagement and workaholism cannot provide clarity about the distinction between these constructs. For example, apart from the generally used main dimensions of workaholism (working excessively and working compulsively; Schaufeli, Shimazu, & Taris, 2009), other theoretical models appeared. The 'workaholic triad' assumes that workaholism consists of three underlying dimensions, being involvement, drive and work enjoyment (Spence & Robbins, 1992). These dimensions may be combined into six types, which can indicate various types of both workaholics and non-workaholics. The advantage is that different types can be compared with others. One combination represents workaholics, also known as 'real workaholics' and reflects individuals with a high involvement, high drive and low enjoyment. One of the other combinations refers to engaged workers, referred to as 'work enthusiasts', reflecting individuals who are high in involvement and enjoyment and low in drive. 'Disenchanted workers' are low in involvement and enjoyment and high in drive (resembling burned-out workers). Beside these three types, another type was identified, namely the reluctant hard worker (Buelens & Poelmans, 2004). This type has been described as: 'the reluctant hard worker reports relatively long working hours, at a relatively low hierarchical level,

with a strong perception of external pressure and a low perception of growth culture and a strong intention to leave the organization' (Buelens & Poelmans, 2004, p. 440). Schaufeli, Taris, & Van Rhenen (2008) argued that this subdivision of the three indicators, namely involvement, drive and work enjoyment, does not help to define burnout, work engagement and workaholism, because the conceptualization of these constructs becomes less clear when common elements are used in their definitions. Another approach to conceptualize work engagement and workaholism with regard to hard work was given by Porter (2001), trying to distinguish them: 'Joy in work is not a part of workaholism viewed as an addiction' (p. 151). It can be concluded that work engagement and workaholism both relate to hard work, but workaholics work from a compulsion, engaged people from a pleasure to work. In conclusion, the various attempts by researchers to distinguish burnout, work engagement and workaholism have not led to unequivocal answers.

Structural stability of burnout, work engagement and workaholism over time

Test–retest reliability analyses of these three constructs (including their dimensions) provide evidence for their stability (burnout, Schaufeli & Bakker, 2007; work engagement, Schaufeli, Bakker, & Van Rhenen, 2009; workaholism, Littman-Ovadia et al., 2014). *Burnout* is fairly stable over time (1.5−3 years, Schaufeli & Van Dierendonck, 2000), which can be attributed to specific personality traits (Schaufeli & Bakker, 2007). Most theoretical assumptions consider *work engagement* as a stable state of mind (e.g. Seppälä et al., 2009), indicating that its stability does not decline over seven years; thus, work engagement can be seen as a time-invariant component. Furthermore, just as with burnout, personality influences work engagement (Bakker, 2014). Finally, the same holds for *workaholism*. Snir and Harpaz (2012) noted that predisposition can be seen as one of the main causes of workaholism, thus suggesting temporal stability of this construct.

Although test–retest reliability reflects the stability of burnout, work engagement and workaholism as separate constructs, it is unclear whether their distinctiveness (or lack thereof) also holds over time, referring to structural stability. In other words, the question remains whether these three constructs can be distinguished empirically (i.e. assuming that dimensions load on their 'own' factors without too many cross-loadings), and whether this distinguishability holds over time (i.e. reflecting that a similar factor structure is found across measurements).

The current study

This study investigates (a) the distinctiveness and (b) the two-year temporal stability of the structure of the constructs burnout, work engagement and workaholism in one model. This investigation may shed light on the robustness of the model regarding the construct validity, the overlap between the constructs and the structural stability.

Maslach and Leiter (1997) presented all subscales of two constructs (burnout and work engagement) in one factor. Schaufeli, Taris, & Van Rhenen (2008) and Schaufeli, Shimazu, & Taris (2009) added workaholism as a third construct to the model. Because the latter two studies already investigated burnout, work engagement and also workaholism as one overarching factor, with the result that the three constructs had to be distinguished empirically, we decided to use the model with the three constructs and the original dimensions, thus burnout (exhaustion, cynicism and professional efficacy), work engagement (vigor, dedication and absorption) and workaholism (working excessively and working compulsively) in one model. Based on the literature above, we expect a model with three relatively distinct factors, each with their corresponding dimensions and a limited number of cross-loadings, being professional efficacy loading

on work engagement instead of burnout, and absorption loading extra on workaholism (Hypothesis 1). Regarding the structural stability, we expect that the models at the two measurements will be similar (Hypothesis 2).

Method

Participants and procedure

Judges from two large district courts (79 and 86 participating judges, respectively) and two smaller district courts (with 51 and 41 participating judges, respectively) in the Netherlands participated in this study ($N = 257$). They were practicing in the following fields of law: criminal law, civil law, family law, administrative law and the sub-district sector. The Council for the Judiciary in The Hague, The Netherlands approved this study in 2012 and recommended participation. Judges were informed of the study in an email three days before the online questionnaire was sent. This email contained information about the purpose and procedure of the study. The judges were assured that the research is confidential and answers are not traceable to the individual. Judges were free to participate and could withdraw from the study at any time without giving a reason. Informed consent was obtained from all participants. The questionnaire was sent to the judges in 2012 (Wave 1), and in 2014 all judges who completed the questionnaire and indicated to be willing to participate a second time were contacted again (Wave 2). For Wave 1, the response rate was 42%; 257 of the 612 judges completed the questionnaire (36.2% male and 63.8% female, $M_{age} = 50.47$ years, $SD = 7.91$). Of these 257 judges, 118 participated during Wave 2 (response rate 46%). Thus, the final sample used for the analyses consisted of 118 participants who completed both questionnaires (Wave 1: 29.7% male and 70.3% female, $M_{age} = 50.38$ years, $SD = 7.38$; Wave 2: 28.8% male and 71.2% female, $M_{age} = 52.38$ years, $SD = 7.38$). Concerning gender, one participant indicated at Wave 1 being a man and at Wave 2 being a woman.

Measures

The Utrecht Burnout Scale

Participants completed the Utrecht Burnout Scale (UBOS; Schaufeli & Van Dierendonck, 2000), the Dutch version of the Maslach Burnout Inventory–General Survey (Maslach et al., 1997, as cited in Schaufeli, Leiter, & Maslach, 2009). This instrument consists of 15 items and has three subscales, namely exhaustion (five items, e.g. 'I feel used up at the end of the workday'), cynicism (four items, e.g. 'I doubt the significance of my work') and professional efficacy (six items, e.g. 'I can effectively solve the problems that arise in my work'). Participants were asked to indicate their agreement on a 7-point Likert scale (0 = *never* to 6 = *every day*). The test–retest reliabilities of the subscales were good; after one year their Pearson correlation coefficients varied from .57 to .60 (Schaufeli & Van Dierendonck, 2000; see also Leiter & Schaufeli, 1996). The three subscales in this study with a two-year time lag showed moderate to good reliabilities (Cronbach's α): exhaustion, $\alpha = .88/.90$, cynicism, $\alpha = .71/.69$ and professional efficacy, $\alpha = .80/.81$, for the two waves, respectively.

The Utrecht Work Engagement Scale

Work engagement was measured by a Dutch version of the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), consisting of 17 items and three subscales. The subscale vigor consists of six items (e.g. 'At my job, I feel strong and vigorous'), the subscale dedication consists of five items (e.g. 'I find the work that I do full of meaning and purpose'), and the subscale absorption contains six items (e.g. 'I get carried away when I am working'). Responses are given on a 7-point Likert scale (0 = *never* to 6 = *every day*). The reliability (internal consistency) and the factorial validity were good (see Schaufeli, Martínez, et al., 2002; Schaufeli, Salanova, et al., 2002). Test–retest reliability over two years showed the following results for vigor, dedication and

absorption: $r = .30$, $r = .36$, $r = .46$, respectively (Schaufeli & Bakker, 2003, 2004). In our study, Cronbach's alpha values for the subscales were sufficient to good: vigor, $\alpha = .76/.77$; dedication, $\alpha = .88/.85$; absorption, $\alpha = .65/67$, for the two waves, respectively.

The Dutch Workaholism Scale

Workaholism was assessed using the Dutch Workaholism Scale (DUWAS; Schaufeli, Shimazu, & Taris, 2009), with two subscales (16 items): working excessively (9 items) and working compulsively (7 items). Answers could be given on a 4-point Likert scale (1 = *hardly ever* to 4 = *nearly always*). Example items were: 'I stay busy and keep many irons in the fire' (working excessively), and 'I feel obliged to work hard, even when it's not enjoyable' (working compulsively). The reliability and the validity of the DUWAS are sufficient to good (Evers, 2007); Cronbach's alpha values of the scales working excessively and working compulsively are .80 and .86, respectively (Schaufeli, Taris, & Bakker, 2008). Cronbach's alpha values at both time points in this study were acceptable for working excessively ($\alpha = .68/.79$) and for working compulsively ($\alpha = .76/.81$).

Data analyses

There were only a small number of missing data on the scales of two out of the three questionnaires (i.e. the UBOS and UWES): 21 participants were missing 1 item, 10 participants were missing 2 items, 2 participants were missing 3 items, and 1 participant was missing 4 items. Comparison of means and covariances of all variables using Little's MCAR (missing completely at random) test (Little, 1988) produced a normed χ^2 (χ^2/df) of 0.96, $p > .20$, indicating that the data were likely to be missing completely at random (Bollen, 1989). Therefore, missing values in the questionnaires were replaced by the series mean, using the method 'Replace Missing Values' of SPSS 23.0 (IBM corporation, 2014; see also Dong & Peng, 2013; Downey & King, 1998). The internal consistencies (Cronbach's α), descriptives and intercorrelations were calculated using SPSS 23.0. The main analyses were carried out with structural equation modeling (SEM) including maximum likelihood (ML) estimation using the AMOS 22.0 software package (Arbuckle, 1995–2000), to test the fit of the three constructs burnout, work engagement and workaholism in one model, in a two-wave two-year panel design. SEM is used to gather information about latent (unobserved) variables via observed, measured variables (Schreiber et al., 2006). It is a combination of regression and exploratory factor analysis (EFA; Ullman, 2001) or confirmatory factor analysis (CFA; Schreiber et al., 2006). This method is therefore applicable for analyzing the distinctiveness (examining the factor structure) and the stability of the constructs at multiple measurements (comparing the factor structure across time; Byrne, 2010). To test Hypothesis 1, the latent variables burnout, work engagement and workaholism were measured by examining their loadings and cross-loadings in the baseline model according to their dimensions (burnout: exhaustion, cynicism and professional efficacy; work engagement: vigor, dedication and absorption; workaholism: excessively working and compulsively working). The final model (the model with additional paths and covariances) refers to the changes in relationships that needed to be added or removed to improve the model fit. To test Hypothesis 2, the factor structure is compared across the two measurements, and the stabilities of the constructs at two measurements were measured by the associations between the corresponding variables at T1 and T2.

The following fit indices were used: the χ^2 index, the relative or normed chi-square (chi-square/degrees of freedom ratio; χ^2/df), the goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), the normed fit index (NFI), the comparative fit index (CFI) and the root mean square error of approximation

(RMSEA). For the relative or normed χ^2, a value of $\leqslant 5$ indicates an acceptable fit (Schumacker & Lomax, 2004), $\leqslant 3$ a good fit and $\leqslant 2$ a very good fit (Kline, 1998; Ullman, 2001). Values close to 1.00 are indicative of a good fit for GFI and AGFI. The fit indices NFI and CFI should be at least .90, indicating a well-fitting model, but higher than .95 is recommended. RMSEA values smaller than .05 indicate a good fit, while values greater than .08 reflect a moderate fit and values greater than .10 a poor fit (Byrne, 2010).

Results

Preliminary analyses

The results showed that almost all internal consistencies at the two time points (Cronbach's alpha values) met the criterion of at least .70 (Nunnally & Bernstein, 1994). At both time points the skewness and kurtosis met the criterion of values between −2 and +2 for testing normality (Field, 2006), with the exception of the kurtosis of cynicism at Time Point 2 (+3.9). This means that the distribution is more peaked than a normal distribution.

Table 1 reports the means, standard deviations and intercorrelations. The most salient results are described here. The correlations between professional efficacy on the one hand and exhaustion and cynicism on the other hand (all belonging to burnout) were negative at both measurements. Professional efficacy also correlated positively with vigor, dedication and absorption, the subscales of the factor work engagement. Test–retest reliability values ranged from .64 to .74, with the exception of .57 for cynicism. These values are good.

Model testing

The results of the model fit tests and the model comparison are presented in Table 2. For the model comparison, the fit indices and χ^2 difference test are shown. The final model fitted the data better than the baseline model, $\chi^2 = 572.339$, $df = 542$, $p = .177$ (GFI = .90; AGFI = .87; NFI = .93; CFI = .996; RMSEA = .010). Only the score of the fit index AGFI was below .90. The final model (see Figure 1) included the three constructs at two measurements with both (expected) 'wrong' paths between dimensions and factors. More specifically, the three constructs show sufficient distinctiveness, as there are only three overlapping dimensions with the 'wrong' factors, and two of them were expected: professional efficacy loaded on work engagement instead of burnout (as expected), absorption loaded on both work engagement and the 'wrong' factor workaholism (as expected), and exhaustion loaded on workaholism (in addition to burnout), reflecting a new finding and resulting in a better model fit. One error pair was found in Wave 1 between cynicism and dedication; this was not found in Wave 2. Furthermore, in Wave 1, the association between workaholism and work engagement was not significant, between workaholism and burnout moderately positive, and between work engagement and burnout strongly negative. At Time Point 2 these associations are not shown because the AMOS software package does not provide the opportunities for this analysis. Our results show three relatively distinct factors, each with their corresponding dimensions and only a limited number of cross-loadings (of which some were based on the literature). Hypothesis 1 was thus confirmed.

The stability of the three constructs in one model at two measurements was moderately high over the two-year period: burnout .85, work engagement .80 and workaholism .76 (see Figure 1). The stability was thus shown by these strongly positive significant relationships. Comparing these values with the test–retest correlations (see Table 1), work engagement shows the largest agreement ($r = .75$), for burnout and workaholism these coefficients were lower ($r = .64$, $r = .69$). Moreover, the structure of these three factors remained stable over time. Hence, Hypothesis 2 was confirmed.

Discussion

The aim of the present study was to replicate a theoretical model with three constructs, namely

Table 1. Means, standard deviations and intercorrelations of variables.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Wave 1																	
1. Exhaustion	1.74	1.09	—														
2. Cynicism	1.02	0.84	.65***	—													
3. Professional efficacy	4.37	0.77	−.35***	−.46***	—												
4. Vigor	4.14	0.80	−.44***	−.53***	.56***	—											
5. Dedication	4.65	0.95	−.43***	−.62***	.67***	.76***	—										
6. Absorption	3.54	0.79	−.13	−.27**	.41***	.59***	.62***	—									
7. Working excessively	2.15	0.41	.50***	.31***	−.15	−.09	−.03	.20*	—								
8. Working compulsively	1.84	0.53	.50***	.40***	−.13	−.22*	−.15	.10	.63***	—							
Wave 2																	
9. Exhaustion	1.89	1.12	.70***	.49***	−.26**	−.42***	−.36***	−.08	.45***	.42***	—						
10. Cynicism	1.12	0.84	.54***	.57***	−.33***	−.47***	−.45***	−.19*	.36***	.41***	.62***	—					
11. Professional efficacy	4.35	0.83	−.28***	−.33***	.71***	.45***	.53***	.30***	−.15	−.16	−.24**	−.37***	—				
12. Vigor	4.10	0.86	−.36***	−.39***	.53***	.70***	.65***	.50***	−.07	−.14	−.39***	−.51***	.67***	—			
13. Dedication	4.65	0.92	−.35***	−.41***	.56***	.58***	.74***	.46***	−.11	−.19*	−.30***	−.56***	.72***	.83***	—		
14. Absorption	3.67	0.80	−.14	−.15	.47***	.52***	.54***	.68***	−.14	−.08	−.05	−.31***	.49***	.70***	.69***	—	
15. Working excessively	2.20	0.49	.45***	.25**	−.12	−.11	−.05	.11	.66***	.50***	.59***	.43***	−.11	−.08	−.11	.17	—
16. Working compulsively	1.85	0.57	.35***	.26**	−.11	−.14	−.09	.11	.51***	.64***	.55***	.45***	−.17	−.14	−.14	.16	.72***

Note: $N = 118$.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 2. Goodness-of-fit indices of the models, concerning burnout, work engagement and workaholism.

Model	χ^2	*df*	*p*	GFI	AGFI	NFI	CFI	RMSEA
Baseline model	2549.633	556		.68	.61	.67	.72	.078
Final model	572.339	542	.177	.90	.87	.93	.996	.010

Note: $N = 118$. Structural equation modelling was used for the analysis. The baseline model is the model consisting of three constructs, burnout, work engagement and workaholism, with corresponding paths. The final model is the baseline model with additional paths and covariances. X^2 = chi-square; df = degrees of freedom; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NFI = normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

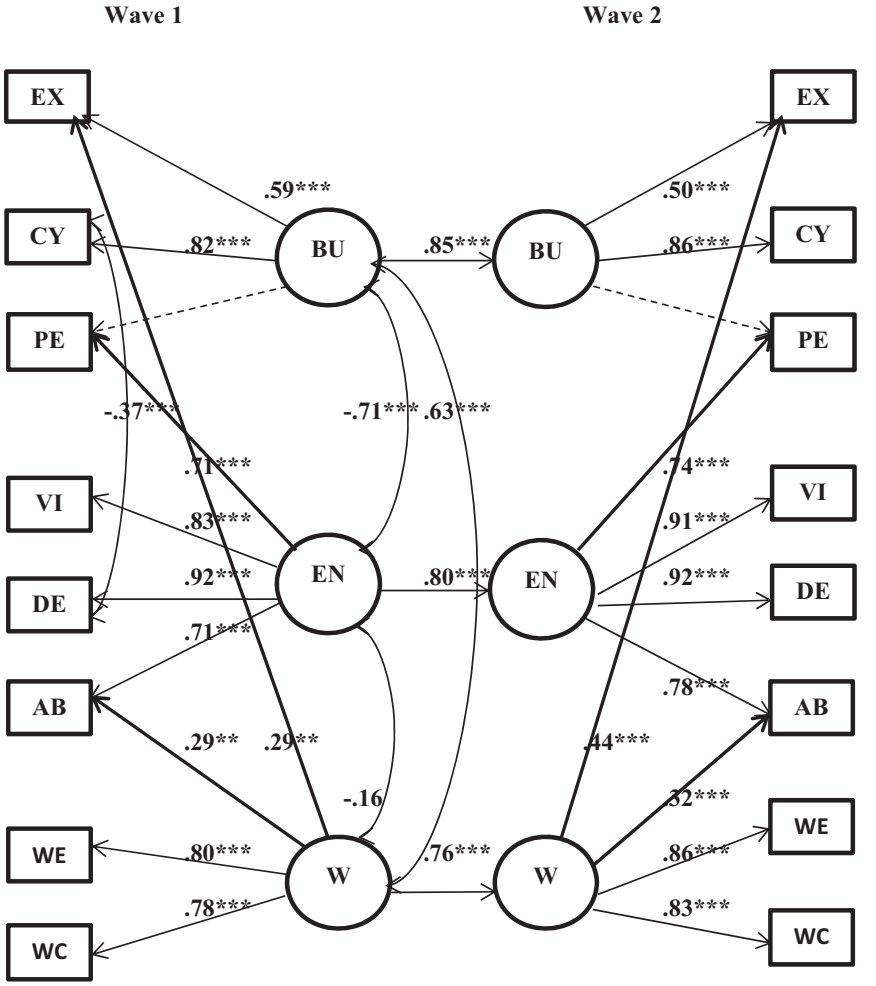

Figure 1. Burnout, work engagement and workaholism: distinctiveness and 2-year structural stability. *Note.* $^{**}p < .01$. $^{***}p < .001$. $N = 118$. This structural equation model shows the distinctiveness and the stability of the constructs in one model over 2 years. Values represent standardized regression coefficients. BU = burnout; EN = work engagement; W = workaholism; EX = exhaustion; CY = cynicism; PE = professional efficacy; VI = vigor; DE = dedication; AB = absorption; WE = working excessively; WC = working compulsively. The dotted lines represent non-significant relationships between professional efficacy and the latent factor burnout. Bold lines reflect loadings of the dimensions on the 'wrong' factor.

burnout, work engagement and workaholism (Schaufeli, Shimazu, & Taris, 2009; Schaufeli, Taris, & Van Rhenen, 2008). Furthermore, the internal validity and the stability of these three constructs were tested in one model. With regard to internal validity, our findings were largely consistent with the results found in previous cross-sectional studies (Schaufeli, Shimazu, & Taris, 2009; Schaufeli, Taris, & Van Rhenen, 2008). This study uses two time points with a time interval of two years. We found an additional loading of exhaustion on workaholism at both time points. Our study showed that the model was largely stable, as the loadings were found at the first and second measurements, but one error pair was found at only one time point. Below we discuss these results in more detail.

Concerning Hypothesis 1, in terms of distinctiveness, although burnout, work engagement and workaholism can be considered sufficiently different, our analyses indicated that the loadings were related to factors other than the expected loadings that constitute burnout, work engagement and workaholism. These modifications suggest that the model with three variables is complex, strongly supporting findings in cross-sectional studies (Schaufeli, Shimazu, & Taris, 2009; Schaufeli, Taris, & Van Rhenen, 2008; Taris et al., 2010).

Consistent with our first hypothesis and the studies by Hakanen and Schaufeli (2012), Schaufeli, Taris, & Van Rhenen (2008) and Taris et al. (2010), professional efficacy 'wrongly' loaded on work engagement (instead of burnout). Similarly, Schaufeli, Shimazu, & Taris (2009) emphasized the role of professional efficacy, which loaded on the 'wrong' latent factor, work engagement. Maslach et al. (2001) argued that professional efficacy is less important than the other two dimensions of burnout. This is in line with Green et al. (1991) who already found that exhaustion and cynicism are the core of burnout. All of these findings (including ours among judges) might indicate that the current three-element conceptualization of burnout should be questioned. This could indicate that the currently used measure could be revised or replaced by another instrument that measures core elements of burnout (e.g. the Oldenburg Burnout Inventory, Demerouti & Nachreiner, 1998; a free measure that examines exhaustion and disengagement). However, if one is specifically interested in the dimensions of exhaustion and cynicism, one can additionally administer the UBOS. So, it depends on the dimensions one is interested in. The idea of two core dimensions may also apply to work engagement, because the third dimension, absorption, is an outsider (or a less pure dimension) given its significant cross-loading on workaholism. Therefore, vigor and dedication might reflect the core dimensions of work engagement. In line with our first hypothesis, absorption loaded on both work engagement and workaholism, which was also found by Hakanen and Schaufeli, (2012), Schaufeli, Taris, & Van Rhenen (2008) and Taris et al. (2010), but was not shown by Schaufeli, Shimazu, & Taris (2009). The loading of absorption on both work engagement and workaholism indicated that workaholics tend to be absorbed by their work as well. Indeed, there are similarities between workaholics and engaged workers. For example, engaged workers work just as hard as workaholics, and both have high work demands and are dedicated to their work. However, the difference between the two is that workaholics are absorbed by a compulsion and engaged people by enjoyment or pleasure (Taris et al., 2010). Engaged workers reported good health, and they consider their job characteristics as positive, while workaholics did not report these positive job characteristics and had a negative view of their well-being. Taris et al. (2010) stated that: 'engaged workers are intrinsically motivated or pulled to work, whereas workaholics are intrapersonally motivated or pushed to work' (p. 44). Di Stefano and Gaudiino (2019) were able to confirm the distinctiveness of work engagement and workaholism, including the loading of absorption on work engagement and workaholism. They

argue that the reason why absorption may lead to confusion is that ' . . . this subdimension encompasses a mix of behavioural and cognitive features associated with a feeling that is neither necessarily positive nor neutral in nature ('being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulty detaching oneself from work'; Schaufeli et al., 2002, p. 75)' (Di Stefano & Gaudiino, 2019, p. 339).

New in the current study is the loading of exhaustion on workaholism. This result, which was found at both time points, is unique and has not previously been demonstrated in research. Until now, it has been generally assumed that workaholics take hard work for granted and do not feel that it takes a lot of energy and leads to fatigue (see Taris & Schaufeli, 2007). However, the extra loading on workaholism may indicate that workaholics probably feel more exhausted than expected. It is conceivable because workaholics are less able to set boundaries than engaged people, who are better able to cope with complex job demands and hard work (Simbula et al., 2011). Workaholics have a strong urge to work very hard, and they work long hours; in other words, their work is their life. Thus, we may cautiously conclude that workaholism may be expanded with an exhaustion dimension. One may wonder whether this finding only occurs in judges or whether this result is replicable in other professional groups.

Based on these results concerning Hypothesis 1, several conclusions can be drawn. There is evidence for the distinctiveness between burnout, work engagement and workaholism; however, the overlapping dimensions with other factors indicate that there is no complete distinctiveness, and therefore we refer to relative distinctiveness, in line with Hypothesis 1. If we follow the results from Schaufeli, Taris, & Van Rhenen (2008) that the three constructs are distinctive, we must also consider the findings of Taris et al. (2017) who concluded that burnout and work engagement are not empirically distinctive, nor that they are part of a single underlying factor. Contrary to Schaufeli, Taris, & Van Rhenen (2008) who found two correlating error pairs, the current study demonstrated only one, which was only found at the first time point. In Schaufeli, Taris, & Van Rhenen (2008), one pair reflected the correlating errors of exhaustion and vigor indicating the activation dimension, and the other pair reflected the correlating errors between cynicism and dedication, indicating the identification dimension (Green et al., 1991). We only found the latter dimension at Time Point 1.

With regard to Hypothesis 2, we expected that the models at the two time points would be similar. To our knowledge, there is no research that has focused on the stability of burnout, work engagement and workaholism in one model measured at two time points. In line with our expectations, the model is fairly stable in our two-wave study with two measurement points. The structure of the three constructs and their interrelationships in our study showed a similar pattern to and broadly the same values of the interrelationships as those found in the cross-sectional studies of Hakanen and Schaufeli (2012), Schaufeli, Taris, & Van Rhenen (2008) and Schaufeli, Shimazu, & Taris, (2009). The identification dimension (relationship between the core elements cynicism and dedication) was also found in the first measurement in our study, which is in line with the results of Schaufeli, Taris, & Van Rhenen (2008). At Time Point 2, this result was not shown. Thus, the role of the identification dimension is not fully reflected in our two-wave study; the error variance of cynicism and dedication has less in common than in the study by Schaufeli, Taris, & Van Rhenen (2008). The activation dimension (between exhaustion and vigor) was not found at all.

Strengths, limitations and suggestions for future research

The strength of this two-wave study was the sampling of a unique occupational group. Although the number of participants is not

very large, which can be attributed to the specificity of the group, the data were usable in this study in both measures. It is exceptional that this group was willing to participate because this profession is normally not open to the outside world because of the discretion and integrity that the profession entails.

Several limitations in this study should be acknowledged. Firstly, the way the survey is completed means that participants differ in the timing of completing the survey online. There is no control over the completion as in an experimental situation. However, an online survey is more anonymous, and participants may feel more free to complete the survey at a time that suits them. Secondly, the use of self-reported questionnaires can result in increasing the likelihood of common method variance. To avoid this problem, other methods of collecting data can be suggested, such as observer reports from colleagues. However, this solution is far from applicable to the professional group of judges, because they are not used to being assessed in this way. Thirdly, this is a two-wave study, and we realize that there is a discussion about the question whether a two-wave design can be considered comparable with longitudinal studies that include more waves. In any case, a two-wave investigation has an added value over cross-sectional studies (Rogosa et al., 1982). However, it is preferable to opt for multiple measurements, but this is difficult to perform with this professional group.

Finally, the findings in our study are only representative for the group studied because judges form a specific homogeneous group, making it difficult to extrapolate the results to the general working population.

We recommend future research to take a critical look and to zoom in even more precisely than before on the investigated constructs. Furthermore, it is important to conduct the research in different professional groups. It is also recommended to make the research group as large as possible and to make the longitudinal design even stronger with multiple measurement points. Finally, more in-depth research has to be done on workaholism, which seems to have a lot in common with burnout and work engagement. Rather than focusing on the distinctions between the constructs, the scientific challenge may be to further explore these established concepts: ‘ . . . absorption is perhaps not a unique feature of work engagement’ (Schaufeli, Taris, & Van Rhenen, 2008, p. 196). However, as Taris et al. (2017) stated, the differentiation between the concepts is still in development. Our study contributes to this discussion.

Conclusion

We can conclude that one model with three variables appears to be a robust model in our research group. The three constructs show relative distinctiveness, as evidenced by some cross-loadings, such as the expected ‘wrong’ loading of professional efficacy on work engagement and no loading on the ‘own’ factor burnout. We found an additional – though also expected – ‘wrong’ loading of the dimension absorption on workaholism in addition to work engagement, and an additional ‘wrong’ loading of exhaustion on workaholism (in addition to burnout), which was not previously hypothesized. It is noteworthy that this loading of exhaustion on workaholism, which was not found in previous studies, is maintained across this two-wave study. This shows that this loading was not purely based on coincidence. Furthermore, both the loadings and factor structure are found to be stable across two measurements, supporting the two-year structural stability.

Ethical standards

Declaration of conflicts of interest

Tineke Hagen has declared no conflicts of interest.

Stefan Bogaerts has declared no conflicts of interest.

Elien De Caluwéa has declared no conflicts of interest.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the Council for the Judiciary and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The Council for the Judiciary in The Hague, The Netherlands, has given the permission and approved the study in 2012. Confidentiality and anonymity of data gathering and data processing were guaranteed.

Informed consent

Informed consent was obtained from all individual participants included in the study

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