Original Article

Are Workaholism and Work Engagement in the Eye of the Beholder?

A Multirater Perspective on Different Forms of Working Hard

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Abstract: Virtually all studies on workaholism and engagement – two forms of heavy work investment – rely on self-part questionnaires. However, the limitations of self-reports are widely acknowledged and in their final sections, papers on workaholism and engagement typically lament the use of such measures. Investigating data other than respondents' self-reports, such as peer ratings, may overcome these limitations. Using a sample of 73 dyads composed of focal workers and their colleagues, the present study aimed: (1) to compare focal workers' and coworkers' perceptions concerning their levels of work engagement and workaholism; and (2) to explore the discriminant validity of engagement and workaholism. A multitrait-multimethod (MTMM) matrix and a correlated trait-correlated method model, the CT-C(*M*-1) model, were examined. Our results showed a considerable agreement between both raters (i.e., focal workers and coworkers) in levels of engagement and workaholism. In contrast to previous findings, a significant difference between raters on the cognitive dimension of workaholism (i.e., working compulsively) was observed. Moreover, our results provided further evidence for the discriminant validity between the two forms of heavy work investment.

Keywords: work engagement, workaholism, multitrait-multimethod analysis, CT-C(*M*-1) model, coworker agreement

There is a growing consensus on a conceptualization of workaholism that emphasizes the role of an overwhelming compulsion to work in order to explain the tendency to invest an excessive amount of time and energy into work (e.g., Ng, Sorensen, & Feldman, 2007). Accordingly, Schaufeli, Taris, and Bakker (2008) defined workaholism as the combination of two underlying dimensions: working excessively and working compulsively. The behavioral component of the construct – *working excessively* – indicates that workaholics work beyond what would be reasonably expected to fulfill organizational or economic requirements; whereas the cognitive dimension of the construct – *working compulsively* – implies that workaholics are obsessed with their work and persistently think about work. The motivational dynamic that propels workaholic employees to work extremely hard is referred to as *controlled motivation* (Van Beek, Taris, & Schaufeli, 2011). These employees are driven by the desire to avoid disapproval by others and to obtain their appreciation and, at the same time, they strive to meet high standards derived by internalization processes of external standards of self-worth and social approval (Van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012). Workaholism is related to detrimental consequences in several life spheres. Concerning the work domain, workaholics may display an impaired work performance (Gorgievski & Bakker, 2010) and recurrent interpersonal conflicts (Mudrack, 2006). In addition, they exhibit poor quality social relationship outside work (Bakker, Demerouti, Oerlemans, & Sonnentag, 2013) and considerable levels of work-home conflict (Schaufeli, Shimazu, & Taris, 2009). In addition, workaholism predicts health complaints (Andreassen, Hetland, Molde, & Pallesen, 2011) and higher levels of exhaustion (Kubota et al., 2011). Taken together, the motivational dynamics involved and the association with harmful outcomes constitute the main distinguishing feature of workaholism, representing a negative form of working hard, and work engagement, constituting a positive form of heavy work investment.

Work engagement is defined as a positive, fulfilling, work-related state of mind that consists of three interrelated dimensions: vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002).

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Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of difficulties. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption is characterized by being fully concentrated on and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work.

In contrast to workaholics, engaged employees are intrinsically motivated, so they experience their work as inherently interesting, enjoyable, and satisfying (Van Beek et al., 2011). This type of motivation encourages individuals to engage in an activity for its own sake and to act on a sense of volition; engaged employees invest a great amount of time working because they cherish this activity and have integrated their work goals mentally, which means that they are happily engrossed in their work (Van Beek et al., 2012). The positive nature of this condition is confirmed by the association of engagement with several positive outcomes. Concerning the work domain, engaged employees are more likely to craft their jobs in ways that lead to increased resources (Bakker, Albrecht, & Leiter, 2011), causing a better performance (Bakker & Bal, 2010) and lower rates of sickness absence (Schaufeli, Bakker, & Van Rhenen, 2009). Contrary to workaholics, engaged employees exhibit better social functioning outside work (Schaufeli, Taris, & Van Rhenen, 2008), enhanced engagement levels of well-being (Hakanen & Schaufeli, 2012), and life satisfaction (Shimazu, Schaufeli, Kubota, & Kawakami, 2012).

In conclusion, the underlying work motivation of engaged and workaholic employees differs fundamentally. The former are primarily intrinsically motivated, so they enjoy their work and feel fulfilled, whereas the latter are primarily driven by internalized standards of self-worth and social approval (Van Beek et al., 2012). Moreover, the different nature of these conditions is confirmed by the reverse association with outcomes pertaining to the work domain, life outside work (i.e., extra job activities and social relationships), and several indicators of individual health and well-being. Finally, psychometric studies indicate that these two forms of heavy work investment can be measured independently of each other (Schaufeli, Shimazu, & Taris, 2009), although some overlap exists. Notably, confirmative factor-analytic studies indicated that the work engagement dimension classified as *absorption* shows a substantial double-loading on workaholism (Schaufeli, Taris, & Van Rhenen, 2008). This overlap reflects the theoretical notion that both workaholics and engaged workers are deeply immersed in their work and are reluctant to disengage from it, albeit that their motivation differs fundamentally.

A Multirater Approach to Workaholism and Engagement

Over the last two decades, several scholars have drawn attention to conflicting results obtained from self-report research (e.g., Donaldson & Grant-Vallone, 2002). To be specific, social desirability, fear of negative consequences, sensitivity of constructs under investigation, and dispositional characteristics may compromise research findings exclusively based on self-report. Hence, typically in their final sections, papers on workaholism and engagement lament the use of self-report measures for these very reasons. Collecting data other than respondents' self-reports – e.g., peer assessments – may potentially overcome these problems.

Porter (1996) speculated that workaholics are often unaware of the obsession that leads them to be completely immersed in their work. Because of this tendency to deny, workaholics' evaluation of their behavior and their attitude toward work might not agree with their significant others' views; thus, they may underestimate their obsession with work. Moreover, they may be unconscious of the damaging effects that long working hours may have on their physical and psychological well-being. Accordingly, it may be argued that coworkers, who spend the majority of their working day in close contact with workaholic employees, acknowledge their heavy work investment and its detrimental outcomes. Porter (1996) points to the parallel that exists with other types of addicts, for instance, drug addicts and alcoholics also tend to deny that they are addicted, and refuse treatment. This evokes the original conceptualization that described workaholism as a veritable kind of addiction and that emphasized its similarity with alcoholism (Oates, 1971).

To date, few studies have addressed the claim that workaholics deny and therefore underreport their compulsive conduct by gathering data from more than one source.

The first study, conducted by McMillan, O'Driscoll, and Brady (2004), collected data from both focal workers ($N = 88$) and their partners ($N = 40$). Participants completed two scales of the Workaholism Battery (WorkBat; Spence & Robbins, 1992) – feeling driven to work and work enjoyment – and estimated the number of hours they worked per week. The results indicated that workaholic employees (i.e., the focal person) rated their work enjoyment slightly higher than their partners did. Most surprisingly, workaholics rated themselves significantly higher in drive than their partners. Accordingly, workaholics did *not* tend to underreport their compulsive conduct toward work in comparison to their partners.

In a similar vein, Aziz and Zickar (2006) assessed the level of agreement on the three workaholism dimensions distinguished by Spence and Robbins (1992) – work

involvement, feeling driven to work, and work enjoyment – between focal workers and an acquaintance (i.e., family member, friend, or coworker). Analyses were based on a total of 174 paired surveys and revealed that the acquaintances substantiated the responses provided by the focal workers. In other words, the study found comparable mean ratings between acquaintances' and focal workers' responses.

Burke and Ng (2007) collected data from workers in professional and managerial jobs (N = 62) along with a self-nominated coworker. Akin to the previous study, the obtained results showed a substantial agreement on all three components of workaholism. Moreover, this study's participants (i.e., focal workers and their colleagues) showed comparable scores on a one-item global assessment of workaholism.

On the whole, the previous findings provide evidence for a substantial agreement among self-reports and the ratings provided by significant others, signifying that focal workers do *not* tend to deny their behavior. However, all previous studies were based on the workaholic triad developed by Spence and Robbins (1992), which distinguishes between positive and negative forms of workaholism resulting from different combinations of three dimensions: work involvement, drive, and work enjoyment. In contrast, in the current study workaholism is defined as a *negative* psychological state characterized by working excessively due to an irresistible inner drive (Schaufeli, Taris, & Bakker, 2008).

Whereas research on workaholism has tried to gather data from multiple sources in order to evaluate the differences between self-reports and significant others' reports, to the best of our knowledge, the present research represents the first attempt to evaluate multirater agreement on work engagement. This is interesting since this positive state may transfer from one individual to another both in the work environment as well as in the family context. This process that occurs when the psychological well-being experienced by one person affects the level of well-being of another person, is referred to as crossover (Westman, 2001). Previous research has provided evidence for a reciprocal crossover of engagement (i.e., vigor and dedication) among partners (Bakker & Demerouti, 2009). Work engagement is also contagious within work teams, so that team-level engagement is related to individual members' engagement (Bakker, Van Emmerik, & Euwema, 2006). More specifically, engagement transmits from one employee to another, particularly on days when coworkers interact more frequently than usual (Bakker & Xanthopoulou, 2009). Although the level of engagement exhibited by employees has a relevant and beneficial impact on the motivation and the attitude toward work experienced by coworkers, research on others' perceptions of this work-related condition is still lacking.

Therefore, the purpose of the present study is twofold. On the one hand, it aims to compare focal workers' and their colleagues' perceptions concerning focal workers' level of workaholism, as measured by the Dutch Work Addiction Scale (DUWAS; Schaufeli, Shimazu, & Taris, 2009), and work engagement, as measured with the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006). On the other hand, both measures will also be employed to investigate the discriminant validity of work engagement and workaholism using different information sources.

Materials and Methods

Participants

Focal Workers

The participants consisted of 73 dyads of Italian workers. The focal workers were mostly female (53.4%), the mean age was 41.16 years (SD = 6.51), 61.6% of participants worked in the commercial sector, 28.8% in the industrial sector, and the remaining 9.6% worked in public administration. The majority of the sample worked as employees (50.8%), had a permanent job (95.9%) with a full-time contract (97.3%), and the mean organizational seniority was 10.77 years (SD = 7.1).

Coworkers

The slight majority of coworkers were women (58.9%), the mean age was 36.14 years (SD = 7.60). Sixty-one percent of coworkers worked in the commercial sector, 28.8% in the industrial sector, and 9.6% in public administration. The majority of this group worked as employees (60.6%), had a permanent job (87.7%), worked full time (94.5%), and had an organizational seniority of 6.73 years (SD = 5.98).

Procedure

Questionnaires were distributed to 73 individuals working for five different Italian organizations operating in several occupational sectors as part of an occupational health survey. These focal workers were randomly selected by the research group and were provided with two copies of the same questionnaire. Each focal worker had to complete one of these copies as a self-report questionnaire, and was instructed to have the other copy filled out by a coworker who habitually worked with him/her. Both the copies of the questionnaire included a cover letter that provided participants with background information about the general aim of the study. In the introduction to the survey, participant anonymity was emphasized and confidentiality guaranteed.

In order to obtain the other assessment of the level of work engagement and workaholism displayed by the focal worker, the coworker version of the questionnaire was adapted by reformulating all the items into a "he/she" version, and by modifying the instructions accordingly. Therefore, the answers provided by both subjects constitute a dyad, which pertains to the same subject, namely the focal worker. After completion, the coworkers put their questionnaire in a sealed envelope and returned it to the focal worker.

Measures

Work engagement was assessed using the nine-item version of the Utrecht Work Engagement Scale (Schaufeli et al., 2006; Italian version: Balducci, Fraccaroli, & Schaufeli, 2010), which includes three subscales of three items each: vigor, dedication, and absorption. Focal workers answered items such as: "At my job, I feel strong and vigorous" (vigor); "My job inspires me" (dedication); and "I am immersed in my job" (absorption). The coworker version of the questionnaire was reworded in order to reflect their experience of the focal workers' level of work engagement (e.g., "In his/her job, my colleague feels strong and vigorous").

All items were scored on a 7-point rating scale ranging from 0 = *never* to 6 = *always*.

Workaholism was assessed using the 10-item Dutch Work Addiction Scale (DUWAS; Schaufeli, Shimazu, & Taris, 2009; Italian version: Molino, 2012), which included two subscales of five items: working excessively and working compulsively. Example items for the focal worker version of the questionnaire are: "I stay busy and keep my irons in the fire" (working excessively); "I feel guilty when I take time off work" (working compulsively). The coworkers' version of the scale was adapted in order to understand their perspective on focal workers' level of workaholism, therefore all the items were reformulated accordingly (e.g., "My colleague stays busy and keeps his/her irons in the fire" and "My colleague feels guilty when he/she takes time off work").

All items were rated on a 4-point frequency scale ranging from 1 = *never* to 4 = *always*.

Strategy of Analysis

The two main purposes of the study were achieved by using two different strategies of analysis: first, the Multitrait-Multimethod (MTMM) matrix (i.e., correlations among measures of multiple traits assessed by multiple methods) provided preliminary information about the convergent and discriminant validity between work engagement and workaholism (Campbell & Fiske, 1959).

Next, a multiple-indicator correlated trait-correlated method minus one model, namely the so-called CT-C(M-1) model, was analyzed (Eid, Lischetzke, Nussbeck, & Trierweiler, 2003; Nussbeck, Eid, Geiser, Courvoisier, & Lischetzke, 2009). The CT-C(M-1) model is a special case of the correlated trait-correlated method model, with one method factor less than the numbers of methods considered. Indeed, in this model one of the methods is selected as a *reference method* (or standard method), and is not modeled as a factor.

In the current model, we had *structurally different methods*, since each of them had a particular perspective on the focal person. In other words, the focal worker was asked to rate him- or herself, while the coworker was asked to rate the focal worker. The presence of structurally different methods led us to define focal worker (i.e., self-report) as the reference method. The exclusion of a specified method factor for self-report implied that the trait factors (engagement and workaholism) were interpreted as the traits measured by focal workers. Hence, the present study contrasted the focal worker self-report with the coworker report, thus it explored the deviations of the coworker ratings from the self-report ratings provided by the focal worker.

Results

Descriptive Statistics

Table 1 displays the full MTMM matrix of the correlations among the components of engagement and workaholism and the total scores on these dimensions, as measured by focal workers and coworkers.

Overall, a comparison of the means of the focal workers and coworkers revealed very similar patterns. Nonetheless, the focal workers' average self-evaluations were in general slightly higher than those provided by their coworkers for the two central dimensions of engagement, namely vigor and dedication. However, this difference was not statistically significant either for vigor, $t(72) = .77$, $p = .45$, d[1] $= -.08$, or for dedication, $t(72) = .97$, $p = .34$, $d = -.10$. In contrast, focal workers' assessment of absorption was not only higher than the average rating provided by coworkers, but this difference was also far from being significant, $t(72) = -.18$, $p = .86$, $d = .03$. Finally, the focal workers' average self-evaluations on the general score of work engagement were higher than those provided by their

[1] To avoid overestimation, Cohen's d for the paired t-tests was calculated using original standard deviations instead of pooled standard deviations (Dunlop, Cortina, Vaslow, & Burke, 1996).

Table 1. Means, standard deviation, Cronbach's alphas (in parentheses), and MTMM correlations among the variables

			r													
			Self report							Coworker report						
Method and trait	*M*	*SD*	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Self report																
1. Vigor	5.19	0.76	(.81)													
2. Dedication	5.49	0.84	.73***	(.92)												
3. Absorption	5.40	0.57	.54***	.47***	(.60)											
4. Work engagement	5.36	0.62	.90***	.89***	.74***	(.88)										
5. WE	2.76	0.64	−.26*	−.30**	−.15	−.29*	(.83)									
6. WC	2.25	0.57	−.27*	−.26*	−.14	−.27*	.82***	(.73)								
7. Workaholism	2.50	0.58	−.28*	−.30*	−.15	−.29*	.95***	.95***	(.88)							
Coworker report																
1. Vigor	5.11	1.04	**.58*****	.52***	.33**	.57***	−.21	−.12	−.18	(.83)						
2. Dedication	5.40	0.92	.52***	**.62*****	.24*	.57***	−.20	−.12	−.17	.79***	(.91)					
3. Absorption	5.42	0.74	.42***	.51***	**.17**	.46***	−.19	−.19	−.20	.67***	.84***	(.76)				
4. Work engagement	5.31	0.83	.56***	.60***	.28*	**.59*****	−.22	−.15	−.20	.91***	.95***	.89***	(.92)			
5. WE	2.78	0.49	−.18	−.11	−.09	−.15	**.70*****	.67***	.72***	−.08	.06	.02	−.01	(.64)		
6. WC	2.42	0.55	−.07	−.09	−.16	−.12	.46***	**.46*****	.48***	.03	.21	.20	.15	.64***	(.66)	
7. Workaholism	2.60	0.47	−.13	−.11	−.14	−.15	.64***	.62***	**.66*****	−.02	.15	.12	.08	.89***	.91***	(.78)

Notes. *$p < .05$; **$p < .01$; ***$p < .001$. Coefficient alpha is displayed in parentheses on the main diagonal. Correlations between the same trait measured by two different methods (convergent validity) are in bold.

coworkers. Again, the comparison between these means revealed that they were not significantly different, $t(72) = .61$, $p = .55$, $d = -.07$.

The assessments of the workaholism dimensions indicated that the scores provided by coworkers were higher than those provided by focal workers. In particular, there was a significant difference for working compulsively, $t(72) = -2.50$, $p = .01$, $d = .31$, with coworkers assigning higher scores than focal workers. In contrast, focal workers' assessment of working excessively was *not* significantly different from the average rating provided by coworkers, $t(72) = -.46$, $p = .65$, $d = .03$. In a similar vein, the focal workers' average self-evaluations on the general score of workaholism were lower than those provided by coworkers, but these average ratings were not significantly different, $t(72) = -1.87$, $p = .07$, $d = .19$. Therefore, the only significant difference was observed in the cognitive component of workaholism, whereby focal workers report lower levels of their own compulsive work behavior compared to their coworkers.

Correlation Coefficients Among Multitrait-Multimethod (MTMM) Measures

In the MTMM matrix, high correlations between measures of the same trait assessed by different methods provide evidence of *convergent validity*. Conversely, *discriminant validity* is supported if correlations among measures of different traits (using either the same or different methods) are significantly weaker than correlations between measures of the same trait provided by different methods.

An inspection of the MTMM correlations from Table 1 revealed a significant convergence between focal workers and coworkers in all the reported components (*r*s ranged from .46 to .70). The only exception is constituted by absorption, which showed a nonsignificant correlation between focal worker- and coworker reports. Our results also supported the convergent validity of the general scores of work engagement ($r = .59$, $p < .001$) and workaholism ($r = .66$, $p < .001$).

Overall, these correlations support the convergent validity for the dimensions of engagement and workaholism as well as their composite scores, with the exception of the absorption component of engagement. When we take the single dimensions of engagement and workaholism into account, we found evidence for the prevalence of strong method effect: in several cases, correlations among different dimensions measured by the same method were higher than the respective convergent validity coefficients. However, when the total engagement score is considered, the highest correlation by far is that between the heteromethod-monotrait measures, hence between engagement as measured by focal worker and coworker ($r = .59$, $p < .001$). Therefore, work engagement showed strong discriminant validity from the general score of workaholism and its components, specifically working excessively and working compulsively. In a similar vein, when only the general workaholism score is assessed, the highest correlation is between the heteromethod-monotrait measure, hence between workaholism as assessed by the focal worker and its coworker ($r = .66$, $p < .001$). Hence, these results provided evidence of the discriminant validity from work engagement and its dimensions, namely vigor, dedication, and absorption.

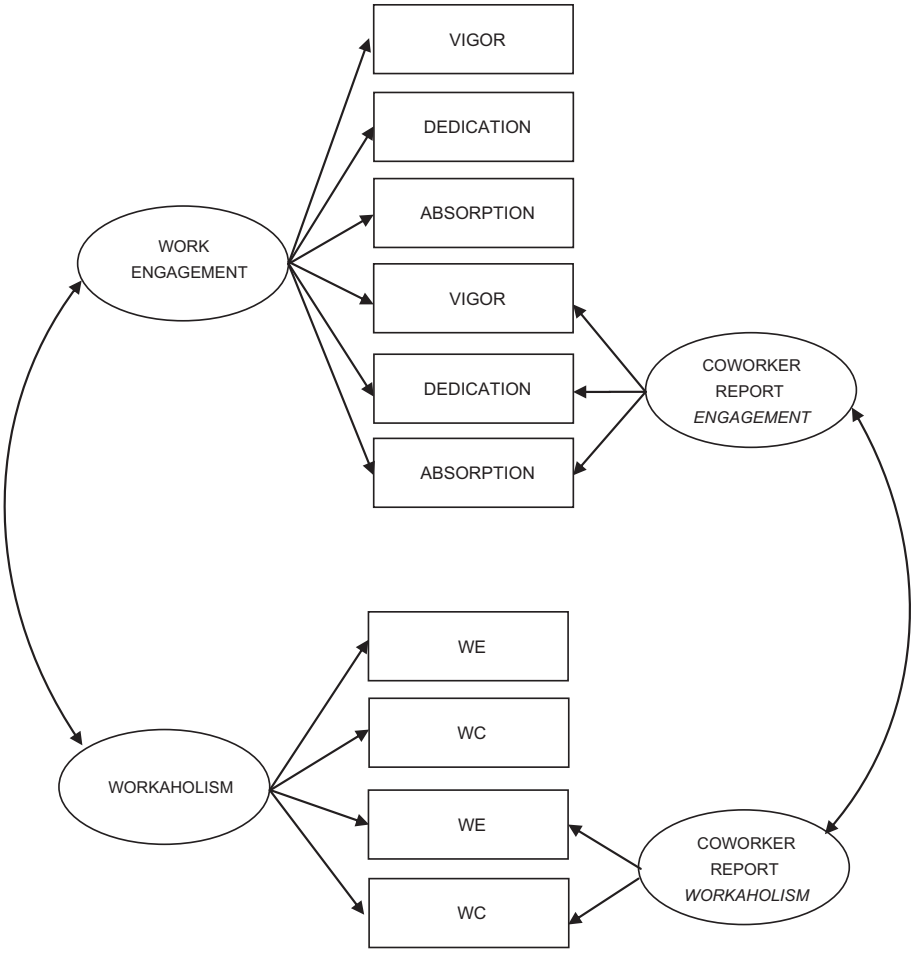

Figure 1. CT-C(*M*-1) model for work engagement and workaholism with self-report as reference method. WE = Working Excessively; WC = Working Compulsively.

Testing the CT-C(*M*-1) Model

The CT-C(*M*-1) model was estimated using the AMOS 5 software package (Arbuckle, 2005) with a maximum likelihood estimation procedure (Figure 1).

The model fit to the data was evaluated using the chi-square (χ^2) statistic and the root mean square error of approximation (RMSEA). We also examined fit indices less sensitive to sample size, including the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI). For the RMSEA, values less than or equal to .08 indicate an acceptable model fit (Bentler, 1990). For the other fit statistics, values of .90 represent acceptable fit, whereas values of .95 or higher indicate good fit (Hu & Bentler, 1999). The model presented in Figure 1 showed a good fit to the data: χ^2 (28) = 36.137, p = .14; RMSEA = .06, CFI = .98, and TLI = .97.

Standardized factor loadings for the trait and method factors are reported in Table 2.

Factor loadings were strong (.58–.94) for focal worker reports as well as for coworker reports (.50–.75). Coworker report represented the only modeled method factor of the current study, since focal worker report was selected as reference method it was therefore not modeled. The high loadings of coworker reports on the trait factors indicate that focal worker reports explain a large amount of the variances of their coworkers' ratings. Consequently, these coefficients provided additional support to the convergent validity between focal worker reports (i.e., self-reports) and coworker reports.

There was some variability across traits: the lowest trait loadings for coworker reports were found for absorption and working compulsively (.50), whereas working excessively showed the highest loading (.75). This suggests that convergent validity of focal worker report vis-à-vis coworker report was strongest for working excessively, and weakest for absorption and working compulsively.

In the CT-C(*M*-1) model, the correlation of different traits measured by the same method indicates the generalizability of method effects across traits (Eid et al., 2003). Hence, a correlation of 0 would indicate that there is no generalizability of method effects across traits, whereas a correlation equal to 1 would suggest a perfect homogeneity of method effects across traits. In the current study, the correlation

Table 2. Standardized factor loadings for trait and method (self-report and coworker report) factors from the CT-C(*M*-1) model

	Work engagement			Workaholism		
		Method			Method	
	Indicator	Trait	Coworker report	Indicator	Trait	Coworker report
Self-report	Vigor	.87***		WE	.94***	
	Dedication	.85***		WC	.87***	
	Absorption	.58***				
Coworker report	Vigor	.63***	.50***	WE	.75***	.40***
	Dedication	.62***	.78***	WC	.50***	.67**
	Absorption	.50***	.66***			
Correlation between traits (work engagement, workaholism)					−.33**	
Correlation between methods (coworker report of work engagement, coworker report of workaholism)					.54**	

Note. WE = Working Excessively; WC = Working Compulsively. **$p < .01$; ***$p < .001$.

between engagement and workaholism as measured by coworkers was $r = .54$ ($p = .02$). This positive correlation indicates that coworkers who overestimate focal worker engagement also tend to overestimate that person's level of workaholism. Conversely, underestimation of engagement is associated with underestimation of workaholism.

The correlation of the trait factors (i.e., work engagement and workaholism) indicates the discriminant validity at the level of the standard method. As reported in Table 2, work engagement showed a negative correlation with workaholism ($r = -.33$, $p = .01$). This negative correlation coefficient indicates that engagement and workaholism emerge as distinct dimensions. Table 3 illustrates the variance components of the observed variables and the true-score variables. All the variance components have been computed using the formulas indicated by Eid and colleagues (2003).

The reliabilities of the observed indicators are relatively high, with the exception of absorption as assessed by focal workers. In line with the internal consistency indicated in Table 1, the reliability of this specific indicator is slightly lower than the value of .70 which is generally used as an indicator for sufficient internal consistency (Nunnally & Bernstein, 1994). The consistency coefficient describes the amount of true variance for an observed variable, or true-score variables, which is explained by trait factors. In other words, it indicates the degree to which true differences between the ratings are due to differences between targets (and *not* due to differences between raters). The method-specificity coefficient, on the other hand, reveals the amount of variance of an observed variable, or true-score variable, as assessed by a non-reference method (i.e., coworker reports) that is specific to this method factor. As a consequence, this coefficient cannot be computed for the reference method (i.e., focal worker). In other words, it represents the proportion of true variance of the assessments that is due to differences between raters (and *not* due to differences between targets).

For the three work engagement indicators (i.e., observed variables), the consistency coefficients of the coworkers' ratings range from .26 to .61. Hence, between 26% and 61% of the coworkers' ratings can be explained by the focal worker reports. Inspection of the method-specificity coefficients of the engagement dimensions suggests that between 25% and 44% of reliable variation in these dimensions as reported by coworkers was unique to this method.

When the variance components of the true-score variables (i.e., latent variables) are considered, the consistency coefficients of the coworker ratings for vigor and dedication range from .61 to .62; therefore, a preponderance of method specificity can be excluded. In line with the data presented in Table 1, the consistency coefficient of the coworker rating for the latent absorption is equal to .37, whereas the method specificity coefficient is equal to .63, suggesting that 63% of reliable variation in absorption as evaluated by coworkers was unique to this method.

The consistency coefficients of the two indicators of workaholism of the coworkers' ratings range from .24 to .56. When the variance components of the true-score variables are examined, the consistency coefficient of the coworker ratings for working excessively is .78, thus suggesting a strong association between focal worker reports and coworker reports for this dimension of workaholism. Working compulsively showed a consistency coefficient of .35, and a method specificity coefficient of .65, suggesting that 65% of reliable variation in working compulsively as assessed by coworkers' was unique to this method.

The last column of Table 3 shows the correlations between the true scores of the coworker ratings and the corresponding true scores of the first focal worker (i.e., self-reported) indicator. Hence, they represent correlations between focal worker- and coworker reports corrected for measurement error. Thus, the latent correlations between coworker-reported latent traits and focal worker indicators ranged from .59 to .88.

Table 3. Variance components in the CT-C(*M*-1) model

	Observed variables			True-score variables		
Rating	Reliability	Consistency	Method specificity	Consistency	Method specificity	Latent correlation
Work engagement						
Self-report						
Vigor	0.75	.75		1.00		
Dedication	0.72	.72		1.00		
Absorption	0.33	.33		1.00		
Coworker report						
Vigor	0.64	.39	.25	0.62	.38	.79
Dedication	1.00	.39	.61	0.39	.61	.62
Absorption	0.70	.26	.44	0.37	.63	.61
Workaholism						
Self-report						
Working excessively	0.88	.88		1.00		
Working compulsively	0.75	.75		1.00		
Coworker report						
Working excessively	0.71	.55	.15	0.78	.22	.88
Working compulsively	0.69	.24	.45	0.35	.65	.59

Note. CT-C(*M*-1) = correlated trait-correlated method minus one. Latent correlation with the standard method ($\sqrt{}$consistency).

Discussion

The present study compared focal workers' and coworkers' perceptions of engagement and workaholism exhibited by the focal worker, and explored the discriminant validity of these different types of working hard.

In line with the MTMM matrix, the CT-C(*M*-1) model supported the discriminant validity between these constructs at the level of the focal worker, chosen as reference method. In line with previous studies (Schaufeli, Taris, & Van Rhenen, 2008), the current research provided evidence for the distinctive nature of these forms of working hard.

The presence of a negative, yet not large, correlation between these constructs is consistent with psychometric studies which corroborated the hypothesis that these two forms of heavy work investment can be measured independently of each other (Schaufeli, Taris, & Bakker, 2008; Schaufeli, Shimazu, & Taris, 2009), although some overlap exists.

According to the MTMM matrix, the assessment of the three dimensions of work engagement showed a substantial agreement between the two groups of raters with the only exception of absorption. However, vigor and dedication are regarded as the core features of work engagement (Schaufeli & Bakker, 2004). Therefore, these results provided support for the convergent validity between focal worker and coworker with respect to both central dimensions of work engagement.

Work engagement as assessed by the UWES is conceived of as a unitary construct constituted by three different yet closely related aspects. As Schaufeli and colleagues (2006) recommend, the total score on the UWES should be used as a single indicator of engagement. In our study, the general assessment of engagement showed a high agreement between the two raters involved; therefore, these results substantiated the convergent validity between ratings of a positive kind of heavy work investment, namely work engagement.

For workaholism, the MTMM matrix indicated highly comparable evaluations for the behavioral component of the construct (i.e., working excessively), but significantly different assessments of the cognitive dimension (i.e., working compulsively). In our sample, focal workers tended to report lower levels of their compulsiveness in comparison to their coworkers. This might be explained by the different nature of the two dimensions of workaholism as described by Schaufeli, Taris, and Bakker (2008). Working excessively refers to a type of behavior which is by definition manifest to observers: accordingly, our results indicate that the evaluation of the behavioral dimension of workaholism is more consistent among the raters involved. In contrast, working compulsively refers to the obsessive nature of the underlying motivation to work hard (Schaufeli, Shimazu, & Taris, 2009). This uncontrollable pressure toward work implies an inner drive, which cannot be directly observed by others. The cognitive component of workaholism is covert unless it translates into overt excessive work behaviors; therefore, self- and other-ratings regarding this dimension are likely to diverge significantly.

On the other hand, the total score on workaholism did not show any significant difference between the raters. This finding is particularly relevant because workaholism is defined as a syndrome, which implies the combination of high scores on both its underlying dimensions: working excessively *and* working compulsively (Schaufeli et al., 2009).

All in all, results concerning the convergent validity between focal worker and coworker assessments of

engagement and workaholism and their dimensions were corroborated by loadings and consistency coefficients reported in the CT-C(*M*-1) model. The high trait loadings indicated that focal worker report (i.e., self-report) explains a large amount of the variances of coworkers' ratings. In particular, the highest loading for coworker report pertained to working excessively, whereas the lowest loading was obtained for absorption and working compulsively. In line with the MTMM matrix, the analysis of the variance components of the CT-C(*M*-1) model indicated that absorption and working compulsively showed strong method specificity: a large amount of variance for these dimensions was explained by method factors. Therefore, the two dimensions of workaholism exhibited a different convergent validity between focal workers' and coworkers' assessments. This deviates from previous findings suggesting a complete overlap between self- and other reports of the dimensions of the Spence and Robbins (1992) workaholism triad (Aziz & Zickar, 2006; Burke & Ng, 2007; McMillan et al., 2004).

On the whole, the present research corroborates the evidence that work engagement and workaholism represent two conceptually and empirically distinct forms of heavy work investment that seem to be similarly assessed by both focal workers and their coworkers.

Although a strength of the present study design is the exploration and matching of data between focal workers and their colleagues, there are some limitations that should be mentioned. First, the sample size was relatively small, which might have reduced the statistical power of our analyses and decreased the opportunity to generalize the obtained results to the entire working population.

A second limitation is the cross-sectional nature of the study, so we cannot draw any conclusions regarding the stability of our findings. A longitudinal research design would allow us to investigate whether the current results are stable across time.

Finally, the engagement dimension of absorption (as measured by focal workers) and the two dimensions of workaholism (as measured by coworkers) had a reliability coefficient slightly lower than the criterion of .70 (Nunnally & Bernstein, 1994). Nevertheless, this alpha coefficient is satisfactory considering Nunnally's (1967) recommendation to only use scales with item consistencies higher than .60 in basic research. In addition, the current study focused on two different kinds of heavy work investment, therefore a crucial role was attributed to the total scores of the UWES and the DUWAS.

Future Research Directions

Despite these limitations, the current findings have implications for future research. Indeed, for future studies on a multirater perspective of workaholism and engagement, it may be of interest to investigate also the perceptions of other subjects, both within the workplace (e.g., supervisors) and the family context (e.g., partners). This will allow us to uncover the overlap or differences in focal workers' workaholism and engagement as measured by other, different raters.

In addition, using the normative scores of the DUWAS (Schaufeli, Shimazu, & Taris, 2009), future studies should select only participants identified as being workaholic in order to specifically address the claim that these workers are unaware of their compulsive conduct toward work, and therefore tend to display a denial tendency that leads them to underestimate this obsession with work (Porter, 1996).

Moreover, future research should investigate the effective impact of focal workers' workaholism and engagement on personal relationships. To this end, measures of relationship quality should be assessed by different raters (e.g., coworkers, partners) in order to corroborate the hypothesis that workaholism and engagement have detrimental and positive consequences also on the quality of workers' relationships.

Final Note

Recurrent problems in research on workaholism and work engagement are the self-assessment of both constructs and their discriminant validity. Based on the current study, researchers can be more confident that worker's self-assessments agree with ratings of their colleagues, and that work engagement and workaholism tap different kinds of heavy work investment.

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