

**“EAST IS EAST AND WEST IS WEST AND
NEVER THE TWAIN SHALL MEET:”
WORK ENGAGEMENT AND WORKAHOLISM ACROSS
EASTERN AND WESTERN CULTURES**

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This article compared the mean levels of work engagement and workaholism across two cultures (East Asia and Western Europe) using a latent variable approach. Data were collected in Western Europe in the Netherlands (N = 10,162), Spain (N = 3,481), and Finland (N = 3,472) and in East Asia in China (N = 2,977) and Japan (N = 2,520). It was assumed that, based on cultural differences, in individualistic and Christian Europe work is associated with self-enhancement and personal development, whereas in collectivistic and Confucian Asia work is associated with enhancement of the group and self-sacrifice. Following this lead, it was hypothesized and found that Western European employees were more engaged at work than East Asian employees. Support for the second hypothesis that East Asian employees are more work addicted than Western European employees was less convincing, since this was only the case for China and not for Japan. Variations in levels of workaholism and work engagement between the countries were discussed in the light of socio-economic differences and cultural differences in work values.

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Working hard and its potential impact on employee health and organizational accomplishments has attracted a great deal of attention from researchers in occupational health psychology. As a positive type of working hard, work engagement, also called employee engagement, has become a well-established academic subject since it appeared on the academic scene at the turn of the century (Kahn, 1990). In recent years, the academic interest has also increased for workaholism, a negative type of working hard, (Clark, Michel, Zhdanova, Pui, & Baltes, 2014) despite the fact that it was coined already in the early 1970s (Oates, 1971).

The vast majority of the studies on work engagement and workaholism have been conducted in western countries, most notably, North America and Western Europe. However, with the expanding global economy, researchers are increasingly interested in work engagement and workaholism in other, non-western countries, such as Japan (Shimazu, Schaufeli, Miyataka, & Iwata, 2010; Shimazu & Schaufeli, 2009; Schaufeli, Shimazu, & Taris, 2009), and China (Fong & Ng, 2012; Hu, Schaufeli, & Taris, 2013; Hu & Schaufeli, 2011; Van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012). Many of the studies that used non-western samples were psychometric in nature and focused, for instance, on the factorial validity of the engagement and workaholism questionnaires (Fong & Ng, 2012; Schaufeli et al., 2009), or on their reliability (Shimazu et al., 2010) in different cultural contexts. Generally speaking the results of these studies have been quite encouraging. The meaning is that the psychometric features of the questionnaires that tap “good” (i.e., engagement) and “bad” (i.e., workaholism) types of working hard (Schaufeli, Taris, & Bakker, 2006b) are positive, also in eastern cultures such as Japan and China.

What is lacking, though, is a direct comparison of the two types of working hard in western and eastern countries. So far, no study has been conducted that compares levels of work engagement and workaholism across these cultures. A direct comparison is interesting because western and eastern cultures differ in their appreciation for working hard and for making long working hours and self-sacrifices (Chung, 1992). The current study investigates differences between work engagement

and workaholism across three European samples (Finland, the Netherlands, and Spain, representing the north, the center, and the south of the continent, respectively) and two Asian samples (China and Japan, representing an emerging and an established economy, respectively). The objective is to investigate the extent to which employees from these five countries and two cultures differ with respect to their levels of work engagement and workaholism.

Culture, Values, and Work

Hofstede (1980) identified four main dimensions by which national cultures differ, one of which is their collectivism-individualism orientation. Collectivistic cultures, such as China and Japan, emphasize group binding that involves mutual obligations of individual members (Oyserman, Coon, & Kimmelmeier, 2002). Moreover, in collectivistic cultures self-sacrifice and submission of one’s interests to the group (e.g., family and organization) are positively valued, along with interdependence, cohesion, and harmony. Organizations in these cultures tend to be considered as an extended family by its employees. As a consequence, the relationship between employee and organization is not limited to the employment contract, but organizations generally expect their employees to go beyond their formal job descriptions (Ramamoorthy, Kulkarni, Gupta, & Flood, 2007). In contrast, individualistic cultures, such as in Western Europe, emphasize personal autonomy and self-fulfillment, and the identity of individuals in these cultures is based on their personal accomplishments. In an individualist culture people see themselves as distinct individuals with unique characteristics. Accordingly, values such as independence, autonomy, and self-esteem are encouraged (Hofstede, 1991). Therefore, labor relations in western countries emphasize quid pro quo relationships between the organization and its members. Organizations tend to expect employees to fulfill their contractual obligations and to perform their job as specified in their job descriptions (Ramamoorthy et al., 2007).

Western European countries such as the Netherlands, Spain and Finland are typical individualistic countries, while the countries of Eastern Asia such as China and Japan are typical collectivistic societies (Gouveia & Ros, 2000;

Hofstede, 2001). Although it has been observed that generally countries shift toward individualism when their national economy is growing (Hofstede, 1991), this cultural shift is rather slow and lags behind economic changes. For example, a meta-analysis revealed that Americans and Australians are similarly high in individualism and low in collectivism compared to Japanese (Oyserman et al., 2002), despite Japan's rapid and profound industrialization that would suggest this difference to be much smaller.

Work as such is valued differently in individualistic and collectivistic cultures. That is, in collectivistic societies, subordinating one's personal goals for the sake of group goals causes employees to have a stronger socially oriented achievement motivation. Hence, it can be assumed that in Eastern Asia working hard is driven by an extrinsic motivation for social approval, namely to fulfill the expectations of the work team and of the organization (Lim & Lay, 2003). In contrast, in individualistic societies in Western Europe, employees place greater emphasis on personal goals and personal achievement. In a similar vein, it can be assumed that employees in these societies work hard because they are driven by individually oriented, autonomous motivation to fulfill their needs for personal growth and development (Deci & Ryan, 2000; Ryan & Deci, 2006). The need to work hard in individualistic societies tends to be more self-centered than in collectivist societies. Working hard is fuelled by self-centered motivation in western, individualistic societies; whereas in eastern collectivistic societies, working hard is fuelled by group-centered motives (Snir & Harpaz, 2012).

Although there is consensus about the fact that work plays a pivotal role in the life of individuals in all cultures (Brief & Nord, 1990), compared with the belief of "work is life" in Asian societies, Western Europeans give higher priority to the quality of life, for instance, by valuing leisure (Haase, Steptoe, Sallis & Wardle, 2004). The reason why quality of life is more valued than economic growth in Western Europe might be that the level of prosperity is rather high so that people do not have to bother about economic survival. This is in line with Snir and Harpaz (2009), who suggested that work investment is heavier (i.e., people

are working harder) in societies where survival values are important, as compared to societies where self-expression values are important.

It has been argued that the Protestant work ethic, that emphasizes such values as independence and competition, has been the main driving force behind the economic successes of European countries (Weber, 1959). In a similar vein, it is argued that work ethics derived from Confucian values, such as diligence, industriousness, and thrift, have been the main underlying reason for the economic successes of Asian countries (Tu, 1989). Although the Protestant work ethic and the Confucian work ethic emphasize the importance of working hard, they are based on a different set of values. The Protestant work ethic advocates individualism by stressing individual identity, self-reliance, and personal success, whereas the Confucian work ethic stresses collectivism by advocating filial piety, respect for hierarchy, and group harmony (Inglehart, 1997). Despite the fact that it seems that the traditional Protestant work ethic, which focuses on diligence, deferment of gratification, and the primacy of work, has weakened in western societies, the expressive nature of work is becoming increasingly important (Yankelovich, 1981). That means that in western countries greater emphasis is placed on feelings of enjoyment at work and on interesting work that offers possibilities for personal growth and development (Hofstede, 1980).

Confucianism has been the major cultural force in East Asian societies, including China and Japan (Song, 2001). For example, Confucian concepts such as filial piety, obedience, and loyalty are expressed by employees in organizations as subordination, endurance, and devotion, respectively (Tian, 2004). Devoted, hard work and diligence are the core values of Confucianism, and self-sacrifice puts the benefit of the group above that of the individual (Tian, 2004). This manifests itself in working very long hours, even to the point of exhaustion, which is illustrated by the notion of "karoshi," or death from overwork, that emerged as a social issue in Japan (Horne, 1998). Because of the rapid economic development in China, which is similar to the Japanese economic growth in the decades following the Second World War, it can be expected that traditional Confucian work values may motivate Chinese workers to work exces-

sively hard. In addition, competition on the labor market resulting from the fast growth of the urban population, financial hardship, poor official regulation of overtime work, weak trade unions, and an insufficient social security and pension system all contribute to excessive work behavior of Chinese employees (Westwood & Lok, 2003). In sum, although Japan and China differ in their level of economic development, with China rapidly catching up, both countries share essential social-cultural values and orientations towards work that are rooted in Confucianism. For instance, employees in both countries find it difficult to decline working unpaid overtime and sacrifice themselves in their jobs (Chung, 1992).

To put it simply, western European employees, based on their individualistic orientation, look for self-enhancement in their jobs, whereas eastern Asian employees, having a collectivistic orientation, sacrifice themselves to meet organizational standards. When organizational goals fit with their values and beliefs and are therefore conducive to fulfill their basic psychological needs, external organizational standards may be internalized and manifests itself by an inner drive to work hard.

Two Types of “Working Hard” – Workaholism and Work Engagement

Oates (1971) defined “workaholics” as individuals who devote more time and energy to their work than it actually demands. Of course, people may work hard for a variety of reasons, such as money, promotion prospects, to please their boss, or because they have a poor marriage. But in addition to working hard, workaholics are also characterized by working compulsively. That is, they find it difficult to disengage from work, and persistently and frequently think about work, even when they are not at work. In other words, they are obsessed with their work. Accordingly, workaholism includes two core characteristics: working an excessive amount of time and having a compulsive inner drive to work (Schaufeli, Taris & Bakker, 2006b, 2008a). These two characteristics represent the behavioral and the cognitive dimension of workaholism, respectively.

Work engagement refers to a positive affective-cognitive state of fulfillment that is characterized by vigor, dedication, and absorption

(Salanova, Schaufeli, Llorens, Peiró & Grau, 2000; Schaufeli, Salanova, González-Romá, & Bakker, 2002). Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even 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 and happily engrossed in one’s work, whereby time passes quickly (Schaufeli & Salanova, 2011).

It is important to note that workaholism differs from work engagement. Confirmatory factor analyses showed that work engagement and workaholism can be distinguished as two separate constructs (Schaufeli, Taris, & Van Rhenen, 2008b; Taris, Schaufeli, & Shimazu, 2010). The crucial difference between workaholism and work engagement is that workaholism lacks the positive affective component of work engagement (Salanova, del Libano, Llorens, & Schaufeli, 2013). In contrast, work engagement does not include the compulsive drive of workaholism (Schaufeli et al., 2008b).

In addition to a psychometric distinction, workaholism and work engagement are differentially related with indicators of excessive work, job demands, job resources, social relations, and health and organizational outcomes (Schaufeli et al., 2008b). Workaholism has been linked to a higher level of job demands such as workload, family-work interferences, negative outcomes such as psychological distress and physical health (Shimazu & Schaufeli, 2009), negative reactions of others and impaired social functioning (Schaufeli et al., 2008a), and poor life satisfaction (Shimazu & Schaufeli, 2009). In contrast, work engagement has been linked to higher levels of job resources such as job control (Hu, Schaufeli, & Taris, 2011), social support (Hu et al., 2011), innovative climate (Hakanen, Bakker, & Schaufeli, 2006) and procedural justice and decision latitude (Boyd, Bakker, Pignata, Winefield, Gillespie, & Stough, 2011; Karatepe, 2011), and to positive outcomes such as organizational commitment (Hu et al., 2011; Boyd et al., 2011), job performance (Halbesleben & Wheeler, 2008), team performance (Salanova, Llorens, Cifre & Martínez, 2012; Torrente, Salanova, Llorens & Schaufeli, 2012), and

to outcomes such as mental health (Hakanen & Schaufeli, 2012; Shimazu, Schaufeli, Kubota, & Kawakami, 2012) and lower turnover intention (for meta-analyses see Crawford, LePine, & Rich, 2010; Halbesleben, 2010).

Perhaps even more importantly, workaholism and engagement differ in terms of the underlying psychological processes involved. For instance, work engagement is primarily characterized by intrinsic motivation, whereas workaholism is primarily characterized by a compulsive, extrinsic motivation (Gorgievski, Bakker, & Schaufeli, 2010; Van Beek et al., 2010). Engaged employees work hard because they enjoy their job and they derive gratification from the work itself; their job is self-rewarding. In contrast, workaholics have internalized high external performance standards from their social environment and they work hard to comply with these standards, even though it is not necessary. Status, peer admiration, and supervisor approval might drive workaholics to work hard (Taris et al., 2010). Clinical observations confirmed that workaholics depend upon their work for their self-worth; if they do not fulfill their high standards, destructive self-criticism and negative feelings will result (Robinson, 2001).

Another study found that engaged workers decide to stop work when they do not enjoy working any longer or when they believe that they have done enough (van Wijhe, Peeters & Schaufeli, 2010). As a consequence they replenish their mental resources by detaching themselves from work and enjoying their respite (Kühnel, Sonnentag & Westman, 2009). In contrast, workaholics feel guilty when they are not working, and they may go as far as to actively create additional work for themselves, for instance, by taking on extra work or by refusing to delegate work (van Wijhe et al., 2010). As a consequence, workaholics have insufficient opportunities to recover from their excessive work behavior (Schaufeli et al., 2009), so that they run the risk of getting emotionally and cognitively exhausted (Taris, Schaufeli, & Verhoeven, 2005).

In sum, workaholics are “pushed” to their work, whereas engaged employees are “pulled” to their work (Taris et al., 2010). Moreover, workaholism and work engagement are two distinct concepts that can be measured with different questionnaires. And last but not least, it seems

that different psychological processes play a role in work engagement and workaholism.

The Current Study

The aim of the current study is to investigate the extent to which employees from Western Europe (i.e., Finland, The Netherlands, and Spain) and from Eastern Asia (i.e., China and Japan) differ with respect to levels of work engagement and workaholism. We expect to find systematic differences, notably between the western and the eastern countries. Not only is the cultural orientation of European countries more individualistic and that of the Asian countries more collectivistic, but also the differences in work ethic are rooted in Protestant-Christian and Confucian values, respectively. In Europe work is associated with self-enhancement and personal development, whereas in Asia work is associated with enhancement of the group and with self-sacrifice. Based on this reasoning we expect that: (1) compared to eastern countries (China and Japan), employees in western countries (Netherlands, Spain, and Finland) have higher levels of work engagement (Hypothesis 1); and (2) compared to western countries (Netherlands, Spain, and Finland), employees in eastern countries (China and Japan) have higher levels of workaholism (Hypothesis 2).

Studies that compare cross-cultural differences in mean levels of either work engagement or workaholism are virtually absent. A notable exception is the study of Shimazu, et al. (2010) that showed that mean levels of work engagement are much lower in Japan than in the Netherlands. According to the authors, this is caused by the pervasive tendency in Japan to suppress the expression of positive affect in order not to disrupt the social harmony; namely, by expressing positive emotions (such as work engagement) the employee places himself in a superior position compared to the group (Shimazu et al., 2010).

The current study uses the Utrecht Work Engagement Scale (UWES, Schaufeli et al., 2002; 2006a) and the Dutch Work Addiction Scale (DUWAS, Schaufeli et al., 2009) which are well validated instruments to measure work engagement and workaholism, respectively. The factorial validity and reliability of both measures has been confirmed in many countries. For example, for work engagement in China (Fong &

Ng, 2012; Zhang & Gan, 2005), Japan (Shimazu, Schaufeli, & Kosugi, et al., 2008), Spain (Salanova, Schaufeli, Llorens, Peiró & Grau, 2000; Schaufeli et al., 2006a), Finland (Hakanen, 2002), and the Netherlands (Schaufeli & Bakker, 2004); and for workaholism in China (Van Beek et al., 2012), Spain (Del Libano, Llorens, Salanova, & Schaufeli, 2012), Finland (Hakanen, Rodriguez-Sánchez, & Perhoniemi, 2012), Japan (Taris, Schaufeli, & Shimazu, 2010), and the Netherlands (Schaufeli, Van Wijhe, Peeters & Taris, 2011). It seems from these studies that the different language versions of the UWES and the DUWAS are psychometrically sound, at least as far as their factorial validity and reliability is concerned.

Virtually no studies on the factorial validity of the UWES or DUWAS have been carried out across national cultures, except a within-country study of ethnic groups with different language and cultural heritages in South Africa (Storm & Rothmann, 2003). This study documented the equivalence of UWES across these groups so that it can be used as an unbiased instrument to measure work engagement in the multicultural South African context.

In order to study differences in levels of workaholism and work engagement across countries, the factorial invariance of the measurement instruments that are being used (UWES and DUWAS) should be demonstrated first, before testing both hypotheses.

Method

Participants

Data were collected either by the authors themselves or by occupational health or HRM professionals as part of work and well-being surveys through paper-pencil tests or internet during the period from 2009 until 2011. The Dutch sample consisted of teachers (N = 445), white collar workers (N = 1,995), blue collar workers (N = 407), health professionals (N = 3,290), public administration employees (N = 2,154), and other employees (N = 1,871). The total number of Dutch respondents is 10,162 (54.6% male and 45.4% female, mean age = 38.25, SD = 10.38). The Spanish sample consisted of teachers (N = 529), white collar workers (N = 1,303), blue collar workers (N = 204), health professionals (N = 79), public administration employ-

ees (N = 163), and other employees (N = 1,203). The total number of Spanish respondents is 3,481 (48.4% male and 50.6% female, mean age = 37.24, SD = 10.46). The Finnish sample consisted of health professionals (N = 2,773) and public administration employees (N = 699). The total number of Finnish respondents is 3,472 (31.7% male and 68.3% female, mean age = 49.16, SD = 9.72). The Chinese sample consisted of teachers (N = 389), white collar workers (N = 69), health professionals (N = 1,290), public administration employees (N = 884), and other employees (N = 345). The total number of Chinese respondents is 2,977 (34.1% male and 65.9% female, mean age = 32.87, SD = 9.00). The Japanese sample consisted of white collar workers (N = 1,590), blue collar workers (N = 543), health professionals (N = 79), and other employees (N = 308). The total number is 2,520 (49.9% male and 51.1% female, mean age = 44.43, SD = 12.87). For each country the data were pooled.

Measures

Work Engagement was assessed with the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2002; 2006a). The UWES-9 taps three underlying dimensions, which are measured with three items each: vigor (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "My job inspires me"), and absorption (e.g., "I get carried away when I am working"). All items are scored on a 7-point rating scale ranging from 0 ("never") to 6 ("daily"). High scores on all three dimensions indicate high levels of work engagement.

Workaholism was measured with the 10-item DUWAS (Dutch WorkAholism Scale; Schaufeli et al., 2009) that includes two scales of 5 items each: Working Excessively and Working Compulsively. Example items are: "I seem to be in a hurry and racing against the clock" (working excessively) and "I feel that there's something inside me that drives me to work hard" (working compulsively). All items are scored on a 4-point rating scale, ranging from 1 ("never") to 4 ("always"). High scores on both dimensions indicate high levels of workaholics. Both questionnaires are included in the Appendix.

Statistical Analysis

A multiple group second-order confirmatory factor model was fitted to the data using Mplus (Muthén & Muthén, 2012). The first-order factors represented Working excessively (WE), Working compulsively (WC), Vigor (VI), Dedication (DE), and Absorption (AB). The second-order factors represented Workaholism (WA) and Engagement (EN). In the model, the first-order factors WE and WC were regressed on the second-order factor WA, and the first-order factors VI, DE, and AB were regressed on the second-order factor EN. In addition, the second-order factors WA and EN were assumed to be correlated. Since rating scales were used for all items, the factor indicators of the first-order factors were treated as ordered categorical, and weighted least squares adjusted for means and variances (WLSMV) was used to estimate all model parameters.

Data were analyzed in two steps: (1) estimation of differences in the latent means of WA and EN between Eastern and Western cultures; (2) estimation of differences in the latent means of WA and EN across all five countries. First, the invariance across Eastern and Western cultures (or five countries) of the measurement model including work engagement and workaholism was evaluated. Next, both hypotheses were tested; that is, levels of work engagement and workaholism were compared.

A strong measurement invariance was assumed for all indicators (Meredith, 1993) to estimate differences in the latent means of WA and EN. Thus, for each of the indicators, the factor loadings, factor covariances and the threshold parameters were assumed to be identical for Eastern and Western cultures (or for five countries). Furthermore, it was assumed that the parameters for the regressions of the first-order factors on the second-order factors, as well as the covariance between the second-order factors, were identical. In addition, to identify the model, the means and variances of all first- and second-order factors were set to zero and one, respectively, for the Western culture (or for the Netherlands). The group of Western countries (or the Netherlands) therefore served as a reference group; mean estimates for latent variables in non-reference groups are given in comparison to the zero latent variable means for the reference group.

Results

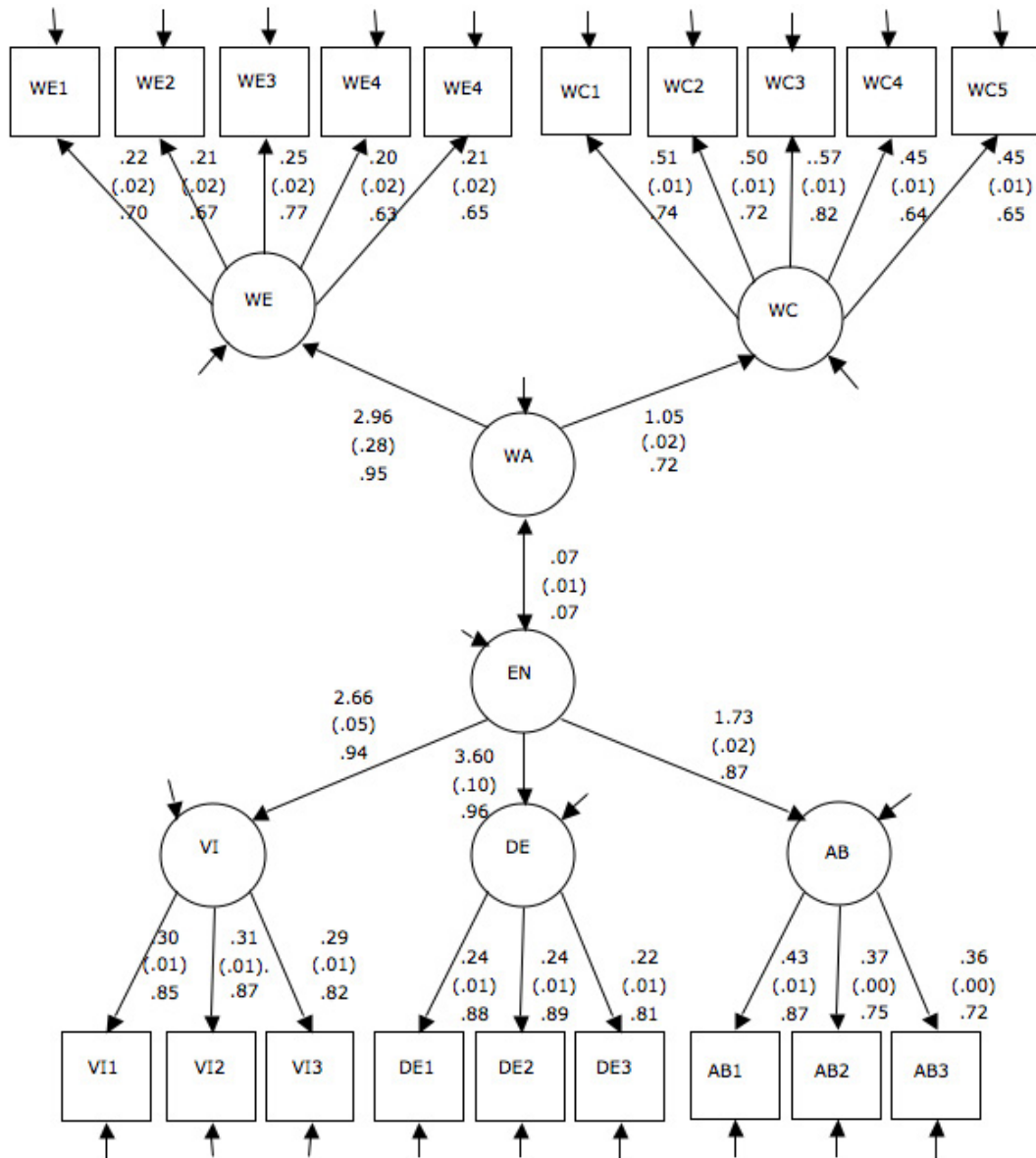
Table 1 displays the means, standard deviations, inter-correlations, and internal consistencies (Cronbach's α) of the three dimensions of work engagement and the two dimensions of workaholism. All values of Cronbach's α meet the criterion for sufficient internal consistency (i.e., .70; Nunnally & Bernstein, 1994).

Table 1
Means (*M*), Standard Deviations (*SD*), Internal Consistencies (Cronbach's α on the diagonal), and Correlations between the Study Variables of the Five Countries

	Netherlands (N=10,162)					Spain (N=3,481)					Finland (N=3,472)					China (N=2,977)					Japan (N=2,520)						
	VI	DE	AB	WE	WC	VI	DE	AB	WE	WC	VI	DE	AB	WE	WC	VI	DE	AB	WE	WC	VI	DE	AB	WE	WC		
<i>M</i>	3.85	4.16	3.57	2.53	2.07	4.07	4.30	4.00	2.48	2.01	4.64	4.85	4.39	2.21	1.85	2.82	2.75	2.59	2.75	2.71	2.61	3.08	2.66	2.02	1.91		
<i>SD</i>	1.11	1.18	1.19	.59	.63	1.36	1.36	1.60	.74	.70	1.16	1.14	1.34	.61	.60	1.31	1.35	1.42	.57	.53	1.27	1.28	1.38	.72	.61		
<i>VI</i>	.83					.85					.84					.79					.91						
<i>DE</i>	.77**	.86				.75**	.87				.78**	.86				.81**	.86				.85**	.87					
<i>AB</i>	.71**	.75**	.79			.48**	.49**	.85			.55**	.63**	.77			.78**	.80**	.83			.79**	.84**	.89				
<i>WE</i>	.11**	.13**	.20**	.74		.02	.12**	.21**	.78		-.14**	-.02	.17**	.78		.11**	.14**	.07**	.84		.06**	.15**	.20**	.80			
<i>WC</i>	-.09**	-.10**	.08**	.49**	.79	.07**	.12**	.18**	.63**	.76	-.25**	-.14**	.09**	.62**	.82	.26**	.30**	.27**	.57**	.75	.07**	.16**	.22**	.64**	.74		

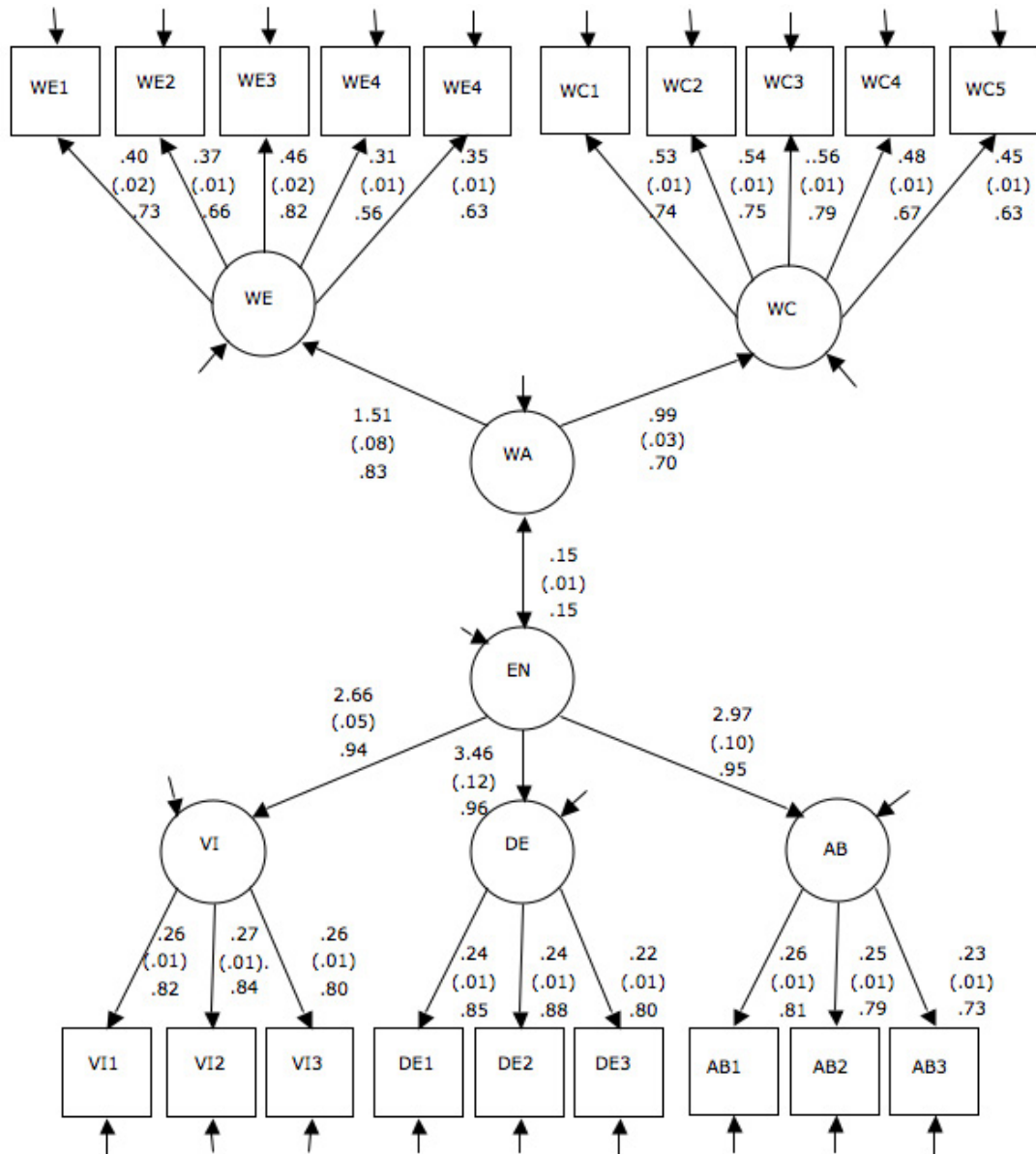
Note: ** $p < .01$; VI = vigor, DE = dedication, AB = absorption, WE = working excessively, WC = working compulsively.

Figure 1
 Measurement Invariance Model across Eastern Countries ($N (EAST) = 5,497$) and Western Countries ($N (WEST) = 17,115$)



Note: The order of parameters is the unstandardized estimates, the corresponding standard errors (in brackets) and the standardized estimates. $p^{***} < .001$ for all paths; VI = vigor, DE = dedication, AB = absorption, WE = working excessively, WC = working compulsively.

Figure 2
 Measurement Invariance Model Across Five Countries (N (Netherlands) = 10,162, N (Spain) = 3,481, N(Finland) = 3,472, N(China) = 2,977, and N(Japan) = 2,520)



Note: The order of parameters is the unstandardized estimates, the corresponding standard errors (in brackets) and the standardized estimates. $p^{***} < .001$ for all paths; VI = vigor, DE = dedication, AB = absorption, WE = working excessively, WC = working compulsively.

Analysis for Eastern and Western cultures

Measurement Invariance. The absolute model-fit of the measurement invariance model yielded a chi-square value of 23,871.61 with 373 degrees of freedom ($p < .001$). Based on this result the model should be rejected. However, with these large sample sizes, the significance may be due to small deviations from the hypothesized model. Therefore, in this case, the root mean square error of approximation (RMSEA) is a better index for the goodness of fit. For the present model the value of the RMSEA is .075 (the 90 percent C.I. is .074 - .075). Since the value of the RMSEA is less than .08, the fit of the model can be considered reasonable to good. In addition, the value of the CFI is .96 and the value of the TLI is .96. The unstandardized estimates, the corresponding standard errors (δM), and the standardized estimates of all parameters that are assumed to be constant across Eastern countries and Western countries, are given in Figure 1.

In conclusion: the measurement model (Figure 1) is invariant across both cultures. Hence, we can proceed with the next step: testing both hypotheses about differences in mean values of work engagement and workaholism across Western and Eastern cultures.

Latent Mean Differences. Results reveal that the latent mean of WA for Eastern countries is higher than the latent mean of WA for Western countries ($\Delta\text{Mean} = .07$, $\delta M = .02$, $p < .01$; Hypothesis 1 confirmed), and the latent mean of EN for Western countries is higher than the latent mean of EN for Eastern countries ($\Delta\text{Mean} = -1.13$, $\delta M = .02$, $p < .001$; Hypothesis 2 confirmed).

Analysis for Separate Countries

Measurement Invariance. The measurement invariance model across five countries showed an acceptable fit for the value of the RMSEA is .087 (the 90 percent C.I. is .086 - .088), the value of the CFI is .94 and the value of the TLI is .95. The unstandardized estimates, the corresponding standard errors (δM) and the standardized estimates of all parameters that are assumed to be constant across countries are given in Figure 2.

In conclusion: the measurement model as depicted in Figure 2 is invariant across all five countries. Hence, we can proceed with the next

step: testing both hypotheses about differences in mean values of work engagement and workaholism across countries.

Latent Mean Differences. In Figure 3, the unstandardized estimates of the latent means are plotted in the xy-plane, where the x-axis represents EN and the y-axis represents WA.

As can be seen from Figure 3, compared to all European countries, levels of engagement for both Asian countries are low. However, the picture for workaholism is not so clear. Here the difference between both Asian countries is very large, with China scoring highest and Japan scoring lowest. So it seems that, in contrast to work engagement, for workaholism no clear-cut difference between European and Asian countries exists.

Finally, it was tested whether the absolute differences in latent means of WA and EN between countries significantly deviated from zero. Both the unstandardized estimates and the standardized estimates of the absolute differences in the latent means of WA and EN between countries, and the test-results are given in Table 2.

Except for the difference in levels of work engagement for China and Japan, all other differences are significant. This means that Hypothesis 1, stating that compared to eastern countries (China and Japan), employees in western countries (Netherlands, Spain, and Finland) have higher levels of work engagement, is confirmed. In contrast, Hypothesis 2 stating that compared to western countries (Netherlands, Spain, and Finland), employees in eastern countries (China and Japan) have higher levels of workaholism is not supported by the data. This is remarkable because it seemed from the previous comparison between the pooled data from Eastern and Western countries that Hypotheses 2 was confirmed. However, a closer look revealed that levels of workaholism are the highest in China and the lowest in Japan, with the three European countries in between.

Discussion

Different geographical environments and social and historical developments have led to different, deeply rooting cultural differences among groups. Our study examined one such difference – individualism vs. collectivism – as a possible antecedent of various forms of well-being. The present study is the first to com-

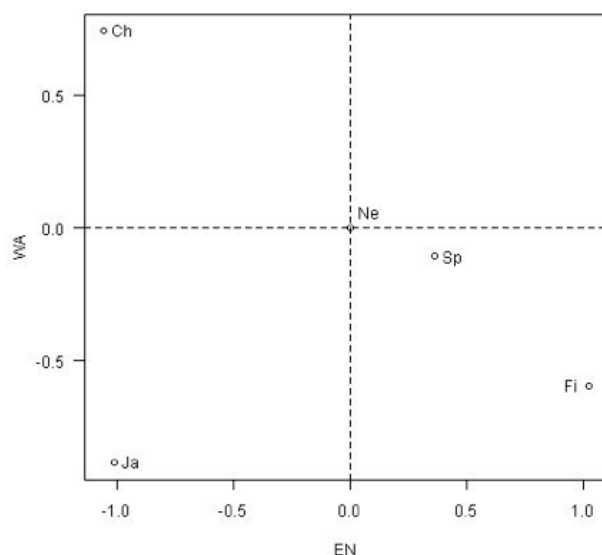
pare the mean levels of two kinds of working hard – workaholism and work engagement – across five countries from two different cultures (i.e., individualist western Europe and collectivist eastern Asia). It appeared that the measurement model that included three scales (vigor, dedication, and absorption) that load on a latent engagement factor, and two scales (working excessively and working compulsively) that load on a correlated latent workaholism factor was invariant across cultures as well as countries (The Netherlands, Spain, Finland, China, and Japan). This result, which is a prerequisite for comparing cross-cultural and cross-national differences in levels of workaholism and work engagement, supported the factorial validity of the measures of engagement (UWES) and workaholism (DUWAS).

Although "culture" in a generalized, abstract way has primarily been associated with the distinction between Eastern and Western contexts, specific countries within these cultures also differ in their histories, religions, and political and economic traditions. These differences might map in meaningful and specific

ways onto cognition, affect, and behaviors of individuals, and could affect well-being as well. The comparison of levels of engagement and workaholism took place across industrialized Japan and emerging China, both with a collectivist orientation, and three industrialized western European countries, all with an individualistic orientation – the Netherlands, Spain, and Finland. Our results provided clear support for our first hypothesis that levels of work engagement were higher in Western countries than in Eastern countries. This result was observed when pooled data of the two Eastern and three Western countries were analyzed, as well as when the data of the five countries were analyzed separately.

For workaholism the results were less clear cut. Although the second hypothesis that the levels of workaholism are higher in Eastern countries than in Western countries was confirmed when pooled data were analyzed, this result was not corroborated for the separate countries. Instead, it appeared that Chinese employees had the highest levels of workaholism of all countries, and that – unexpectedly –

Figure 3
The Distribution of Mean Levels of Work Engagement (WE) and Workaholism (WA) of All Five Countries.



Note: Ne = The Netherlands, Sp = Spain, Fi = Finland, Ch = China, Ja = Japan.

the Japanese had the lowest levels of workaholism. The latter observation runs counter to the popular belief of hard working Japanese employees who run the risk of death by overwork (“karoshi”). This difference might be explained by social and economic variations within cultural contexts (see below).

Western Countries: The Netherlands, Spain and Finland

There is some variation between Western countries with respect to work engagement and workaholism (see Figure 3). For instance, our study revealed that the Finnish sample showed higher levels of work engagement than the Dutch ($\Delta\text{mean} = 1.02, p < .001$) and the Spanish samples ($\Delta\text{mean} = .66, p < .001$). In addition, Finnish employees showed lower levels of workaholism than their Dutch ($\Delta\text{mean} = -.60, p < .001$) and the Spanish ($\Delta\text{mean} = -.50, p < .001$) colleagues. Taken together this means the Finns are motivated to work hard in a “good” way (work engagement) and not in a “bad” way (workaholism). A burning ambition for high-pay or prestigious positions seems uncommon in Finland due to the more relaxed

social attitude towards working. This attitude also fosters the adaptation of the work situation to one’s personal preferences (e.g. flexible work schedules), which might result in higher work engagement levels. A recent Finnish work-life survey indicated that employees are satisfied with leadership (65%) and interpersonal relationships among coworkers (86%), and that the level of satisfaction has risen over the past years (Kauppinen, Mattila-Holappa, Perkiö-Mäkelä, et al., 2012). In addition, a European comparison showed that after Sweden, Finnish employees reported highest levels of working at very high speed (Parent-Thirion et al., 2012). Quantitative workload such as time pressure is a so-called challenge stressor which is known to be positively associated with work engagement (Van den Broecke, De Cuyper, De Witte, & Vansteenkiste, 2010). Taken together, it could be speculated that compared to both other European countries in our study, external economic and social pressure to work hard is less in Finland so that the risk of workaholism is relatively low. At the same time, Finns do challenging work and are quite satisfied with their leaders and colleagues, which are known to be drivers of engagement (Halbesleben, 2010).

Table 2
Absolute Latent Mean Differences and P-values of All Five Countries

	Netherlands	Spain	China	Japan	Finland
Netherlands		.36 (.000) .28	1.06 (.000) .88	1.01 (.000) .90	1.02 (.000) .76
Spain	.10 (.001) .07		1.42 (.000) 1.15	1.37 (.000) 1.17	.66 (.000) .48
China	.74 (.000) .69	.85 (.000) .75		.05 (.160) .02	2.08 (.000) 1.63
Japan	.89 (.000) .58	.79 (.000) .52	1.63 (.000) 1.27		2.03 (.000) 1.65
Finland	.60 (.000) .48	.50 (.000) .42	1.34 (.000) 1.17	.29 (.000) .10	

Note: Lower diagonal: absolute latent mean differences and p-values for workaholism. Upper diagonal: absolute latent mean differences and p-values for engagement. The order of parameters is the unstandardized estimates, the corresponding standard errors (in brackets) and the standardized estimates.

The mean level of work engagement of Spain was higher than that of the Netherlands ($\Delta\text{mean} = .36, p < .001$) while the mean level of workaholism was lower ($\Delta\text{mean} = -.10, p < .01$). The fact that these relatively small differences are significant was most likely caused by the very large sample sizes and should therefore not be over-interpreted (Lin, Lucas, & Shmueli, 2013). Moreover, because these differences are smaller than those between Finland and both other European countries, and because we can only speculate about the nature of these relative small differences, we would refrain from providing any highly speculative “explanations.” In other words, because we studied large samples, we adopted a conservative approach when it comes to interpreting relatively small – albeit statistically significant – differences between countries.

Eastern Countries -- China and Japan

In both Eastern countries – China and Japan – work has a highly significant meaning as a vehicle through which individuals fulfill their social obligations. Work is instrumental; it is a way of facilitating upward social mobility, gaining economic security, and achieving social status and prestige. Success in one’s career is considered a main source of happiness, prosperity, and pride, not only to the individual, but also to his or her family (Chiu & Kosinski, 1995). The fact that, compared to Chinese employees, Japanese had lower mean scores on workaholism might illustrate the impact of economic development and cultural values. Before the 1970s, guaranteed lifetime employment, which is based on cultural values of loyalty and social harmony (Matanle & Matsui, 2011) was an expectation rather than a rule in Japan. When management would demand it, Japanese employees would work long hours at the cost of their private, social lives. In doing so, they demonstrated loyalty and commitment to the company, which paid back in terms of promotion, prestige and trust. However, it also led to “karoshi” (Hebrig & Palumbo, 1994) which surfaced in Japan in the 1990s.

For about three decades, the long-term economic doldrums and the decreased competitiveness in international markets have influenced the employment situation in Japan. To control fluctuating demands for labor and increase the

flexibility of the workforce, there has been a shift from permanent jobs to contractors, leased employees, and temporary workers. In addition, reward criteria based on seniority are being increasingly replaced by performance based criteria that depend on individual or team contribution. These changes have eroded Japan’s well-known psychological contract – lifetime employment, steady advancement, and seniority-based pay increases. The resulting mistrust and weakening of institutional identification by Japanese employees might result in a weak endorsement of obligation norms with respect to work. In accordance with this reasoning, the OECD revealed that in Japan work hours annually decreased from 2,031 in 1990 to 1,745 in 2012 (Average annual hours actually worked per worker, 2013). So taken together, because of the economic crisis and the concomitant erosion of the typical Japanese psychological contract between employer and employee, a strong work ethic is no longer the path leading to a better standard of living. The idea that effort in a competitive economy can lead to success is seriously questioned, and skepticism about the benefits of working hard may weaken the employees’ work ethic. So it seems that Japanese workers invest less heavily in their work, which might result in a lower level of workaholism, especially compared to China with its emerging economy.

In addition, some researchers have suggested that cross-cultural comparisons based on Likert ratings may have been compromised by the potential effects of variability in cultural orientations on response styles (Shulruf, Hattie & Dixon, 2011). Studies revealed that the Japanese culture (which emphasizes values like modesty) might be responsible for differences between cultures in their overall scale scores (Shimazu, Miyanaka, & Schaufeli, 2010). If this is correct, the finding in our study that Japanese scored lower on workaholism could be due to the tendency of Japanese to prefer moderate and less extreme responses.

In contrast, with a very large population in China, the level of welfare provision and protection – including social security, unemployment benefits and pensions – is comparatively low, while income differences and living cost increase rapidly (Huang, 2008). In order to secure a minimal level of prosperity and financial

security, considerable work effort is required. For example, a national survey among 1,007 Chinese (Chen, 2012) showed that 70 percent felt overloaded by their work; only 30 percent worked 40 hours a week statutorily— the majority worked more (Chen, 2012).

In addition, Chinese organizations have experienced downsizing, privatization, restructuring, and merging with increasing frequency in the course of the transition of the national economy. Changes in organization and employment contracts, technological innovation constantly put additional competitive pressures on employees. A sharp rise in anxiety was observed among people who never before experienced unemployment and fierce competition, which constitutes a threat to their sense of security and social status (Tang, 2013). This is comparable to what happened in the 1990s in Japan. As noted in the introduction, Chinese culture values hard work in and for itself, and currently this is reinforced by organizational changes, financial needs, and job insecurity. Therefore, it can be speculated that as a result workaholic tendencies are fostered in today's China.

Strengths and Weaknesses

The most important strengths of our study are that we used well-validated measurement instruments (UWES and DUWAS) and a comprehensive measurement model to test differences in levels of workaholism and work engagement. That is, a latent variable approach was applied, whereby not simple differences between scale scores (using analyses of variance) were calculated, but a comprehensive, overall model was fit to the data that includes the complex, hierarchical nature of both related concepts. It appeared that the measurement model meets the criteria for configure and metric invariance across both cultures and across all five countries. Hence, the comparison of the work engagement and workaholism scales across the five countries could be undertaken with confidence.

One weakness of our study is that differences in cultural and work values were assumed rather than empirically assessed. Future research could also include cultural values such as Schwartz's cultural value types (1992; 1999) and/or specific work values (e.g. Meaning of Work questionnaire; MOW, 1987) to investigate

how value systems relate to different types of work hard.

A second weakness of our study is that we did not use representative (stratified) random national samples for each country except for the Japanese sample, which is representative for occupation, age, gender and resident area (for details, see Shimazu, Sonnentag, Kubota, & Kawakami, 2012). However, to some extent the non-representativeness is counterbalanced by the size and the heterogeneity of the four remaining national samples (with N 's ranging from 2,977 in China to 10,162 in the Netherlands). The national samples were composed of various studies that were carried out among employees from a whole range of occupations and industries. A direct comparison of the levels of workaholism of the same occupational group (i.e. nurses) in the Japanese and Chinese samples ($n = 1446$ and $n = 1542$, respectively) yields similar results as those shown in Figure 3. Chinese nurses show significantly higher scores on working excessively ($t(2,939) = 10.22$) as well as on working compulsively ($t(2,944) = 32.86$). Hence, it is unlikely that differences in workaholism between Japan and China are due to differences in the composition on the national samples. Nevertheless, it cannot be completely ruled out that the results of our study could (partly) be affected by systematic differences between national samples. It should be stressed, however, that the demographic and occupational differences of workaholism (Taris, van Beek & Schaufeli, 2012) and work engagement (Smulders, 2006) are usually quite small, at least within one country. Despite this claim, future research should preferably include national (stratified) random samples that are representative for gender, age and occupation.

Final Note

Our study revealed systematic differences in work engagement and workaholism between Eastern and Western countries that may be explained by differences in cultural and work values. This implies that, when investigating any of the two types of working hard across different countries, cross-cultural and/or cross-national differences should be taken into account. Furthermore, our study documents that levels of workaholism and work engagement not only depend on job characteristics (job demands and

job resources) and personal characteristics (personal resources and vulnerability factors) as has been shown in previous studies, but also on the cultural environment. The fact that culture matters – also for workaholism and work engagement – is particularly important in an increasingly globalizing world.

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Appendix

Dutch Workaholism Scale (DUWAS-10)

The following 10 statements are about how you feel at work. Please read each statement carefully and decide how often you ever feel this way about your job. Please indicate of each statement the alternative that best describes how frequently you feel that way. For instance, if you have never or almost never had this feeling, circle the "1" (one) after the statement. If you have had always or almost always this feeling circle "4" (four).

Working excessively

1. I seem to be in a hurry and racing against the clock
2. I find myself continuing to work after my co-workers have called it quits
3. I spend more time working than on socializing with friends, on hobbies, or on leisure activities
4. I stay busy and keep many irons in the fire
5. I find myself doing two or three things at one time such as eating lunch and writing a memo, while taking on the telephone

Working compulsively

6. It's important to me to work hard even when I don't enjoy what I'm doing
7. I feel obliged to work hard, even when it's not enjoyable
8. I feel that there's something inside me that drives me to work hard
9. I feel guilty when I take time off work
10. It is hard for me to relax when I'm not working

Utrecht Work Engagement Scale (UWES-9)

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

Vigor

1. At my work, I feel bursting with energy
2. At my job, I feel strong and vigorous
3. When I get up in the morning, I feel like going to work

Dedication

4. I am enthusiastic about my job
5. My job inspires me
6. I am proud on the work that I do

Absorption

7. I feel happy when I am working intensely
8. I am immersed in my work
9. I get carried away when I'm working