

## Chapter 9

# It Takes Two to Tango: Workaholism is Working Excessively and Working Compulsively

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Since the term “workaholism” was coined by the American minister and psychologist Wayne E. Oates in 1968 to denote his own work addiction, it has rapidly become a colloquial notion. From the onset, workaholism was a well-liked topic in the popular, business, and self-help press (Robinson, 1998). In sharp contrast to its colloquial use, relatively few scholarly publications on workaholism have appeared. Recently, 131 articles on workaholism were identified, of which only 28 were empirical in nature (Ng, Sorensen, & Feldman, 2007). One of the main reasons for this large discrepancy between public and scientific interest in workaholism is the lacking agreement on its definition. Although for the lay public workaholism is synonymous with working excessively hard, scholars have proposed several more elaborate definitions (for a recent overview see McMillan & O’Driscoll, 2006). Nevertheless, to date, a generally accepted definition of workaholism is still lacking.

In this chapter, we propose a straightforward two-dimensional notion of workaholism. Based on a review of the literature, we conceive workaholism as an irresistible inner drive to work excessively hard (Section 9.1). Following this definition, a self-report questionnaire is introduced — the Dutch Workaholism Scale (DUWAS) — that includes subscales tapping working excessively and working compulsively. A national Dutch database is used to examine relationships of workaholism with age, gender, working hours, and occupational group (Section 9.2). Next, the validity of our two-dimensional approach to workaholism is studied in greater detail in a sample of medical residents, a prototypical risk-group for workaholism (Section 9.3). More particularly, both subscales of the DUWAS are related to various job demands, job resources, and outcomes in order to identify their key correlates. In short, this chapter introduces a two-dimensional notion of workaholism and seeks to demonstrate its validity.

### 9.1. Two Core Components: Working Excessively and Working Compulsively

The most obvious characteristic of workaholics is that they work beyond what is required. Consequently, they devote much more time to their work than to others (e.g., Buelens & Poelmans, 2004; Mudrack & Naughton, 2001). For instance, North American workaholics work on average 50–60 h per week (Brett & Stroh, 2003; Burke, 1999). However, conceiving workaholism exclusively in terms of the number of working hours would be misleading because it neglects its addictive nature. People may work long hours for many reasons such as financial problems, poor marriage, social pressure, or a strong desire for career advancement, without being *addicted* to it.

Rather than being motivated by such external or contextual factors, a typical work addict is motivated by an obsessive internal drive that cannot be resisted. This follows from the overview of earlier theory and research as performed by Scott, Moore, and Miceli (1997), who found three common characteristics of workaholism that feature across most definitions. First, workaholics spend a great deal of time on work activities when given the discretion to do so — they are excessively hard workers. Second, workaholics are reluctant to disengage from work and they persistently and frequently think about work when they are not at work. This suggests that workaholics are obsessed with their work and therefore driven to work excessively — they are compulsive workers. The third element in Scott et al.'s (1997) overview is that workaholics work beyond what is reasonably expected from them to meet organizational or economic requirements. This is a specification of the first and the second feature, because it deals with the motivation for spending an excessive amount of time to work. That is, workaholics work harder than is required out of an obsessive inner drive, and *not* because of external factors such as financial rewards, social pressure, poor marriage, or career perspectives. In a similar vein, in seven of the nine workaholism definitions that were listed by McMillan and O'Driscoll (2006), working excessively hard and being propelled by an obsessive inner drive are mentioned as core characteristics. Also, another analysis of scholarly definitions concludes that hard work at the expense of other important life roles and an obsessive internal drive to work are the two core aspects of workaholism (Ng et al., 2007).

Hence, we define workaholism as the tendency to work excessively hard in a compulsive way. The former — working excessively hard — points to the fact that workaholics tend to allocate exceptionally much time to work and that they work beyond what is reasonably expected to meet organizational or economic requirements. The latter — working compulsively — recognizes that workaholics are obsessed with their work and persistently and frequently think about work, even when not working.

Our conceptualization of workaholism corresponds with the meaning of the term as it was originally used by Oates (1971), who described workaholism as "... the compulsion or the uncontrollable need to work incessantly" (p. 11). For workaholics, their need to work is so exaggerated that it endangers their health, reduces their happiness, and deteriorates their interpersonal relations and social functioning,

he argued. Many other scholars agree with the original view that workaholism is an addiction akin to alcoholism (e.g., Killinger, 1991; Robinson, 1989). As Porter (1996) has put it: "Whereas an alcoholic neglects other aspects of life for the indulgence in alcohol, the workaholic behaves the same for excessive indulgence in work" (pp. 70–71). We agree with Porter and Kakabadse (2006), who called on students of workaholism to stick to the origin of the term, meaning that workaholism should be interpreted as a behavioral addiction that "... involves engaging in a specific behavior for relief, comfort, or stimulation and which results in discomfort or unease of some type when discontinued" (p. 536).

In addition, our conceptualization of workaholism agrees with lay perception. This is illustrated by McMillan and O'Driscoll (2006), who asked workers, colleagues, and partners the question "How would you describe someone who is workaholic?" After content analysis, it appeared that the two most often mentioned answering categories were "time spent working or thinking about work" (39%) and "obsessive personal style" (22%), together representing 61% of the responses.

### *9.1.1. Is Workaholism Positive?*

Some scholars have argued that workaholism may also be seen in positive terms. For instance, Machlowitz (1980) distinguish between "fulfilled" and "unfulfilled" workaholics, Scott et al. (1997) consider achievement-oriented workaholics as "hyper performers", and Buelens and Poelmans (2004) write about some workaholics as "happy hard workers". In a similar vein, Ng et al. (2007) propose — in addition to the behavioral dimension (excessive working) and the cognitive dimension (obsessive or compulsive working) — a third affective dimension; joy in working. And last but not least, the most popular model of workaholism assumes three underlying dimensions — the so-called workaholic-triad — consisting of work involvement, drive, and work enjoyment (Spence & Robbins, 1992). Different combinations of these three dimensions are assumed to produce different workaholic types. For instance, "real workaholics" are high in involvement, high in drive, and low in enjoyment, whereas "work enthusiasts" are high in involvement and enjoyment, and low in drive. Elsewhere, we argued that "work enthusiasts" closely resemble what we defined as engaged workers, who have a sense of energetic and effective connection with their work activities, and see themselves as able to deal well with the demands of their job (Schaufeli, Taris, & Van Rhenen, 2008). Moreover, the discriminant validity of workaholism (as tapped by the DUWAS; see later) vis-à-vis work engagement was successfully demonstrated in a sample of managers. This means that Spence and Robbins (1992) subsume conceptually and empirically distinct types of employee well-being under the same heading of "workaholism". We strongly believe that by introducing "good" forms of workaholism that include work enjoyment as a constituting element, the meaning of the term is blurred. This is also noted by Mudrack (2006, p. 109), who concluded after reviewing various definitions of workaholism: "... work enjoyment, whether it is high or low, is simply not a defining

characteristic of workaholism". So for the sake of conceptual clarity, instead of discriminating between "good" and "bad" forms of workaholism, we proposed to discriminate between workaholism — being "bad" — and work engagement — being "good" (Schaufeli et al., 2008; Schaufeli, Taris, & Bakker, 2006).

## 9.2. The Measurement of Workaholism: The Dutch Workaholism Scale (DUWAS)

In line with our conceptualization, we have operationalized workaholism in terms of two scales, namely *Working Excessively* (WE) and *Working Compulsively* (WC). Originally, these scales were taken from two frequently used workaholism inventories: the *Work Addiction Risk Test* (WART; Robinson, 1999) and the *Workaholism Battery* (WorkBat; Spence & Robbins, 1992), respectively. The original label of the WART-scale that we used to assess excess work (Control Tendencies) was somewhat misleading, because most of its items refer to working hard without any reference to the underlying motivation, whereas the remaining items refer to the inability to relax and to feeling guilty when not working. For that reason, we re-labeled the Control Tendencies-scale as WE. Using three independent Dutch samples, it was shown that the 9-item work excess-scale could be used as short version of the full 25-item WART (Taris, Schaufeli, & Verhoeven, 2005). In other words, working excessively hard seems to be equivalent to the way workaholism was operationalized by Robinson (1999) using the WART.

Studies on the factorial validity of the WorkBat failed to confirm Spence and Robbin's (1992) three-factor model of workaholism that includes work involvement, work enjoyment, and drive (Kanai, Wakabayashi, & Fling, 1996; McMillan, Brady, O'Driscoll, & Marsh, 2002). Instead, the data suggest the elimination of the work involvement factor, leaving a two-factor model with enjoyment and drive as the core components of workaholism. We employ only the drive component because — as was argued earlier — we excluded "good" workaholism that is characterized by enjoyment. The 8-item Drive-scale of the WorkBat that explicitly refers to the compulsiveness of excessive work behavior, was re-labeled as WC so that it matches our definition of workaholism.

A Dutch study using an Internet-based survey revealed that two WE-items load on the WC-scale: "I feel guilty when I am not working on something" and "It is hard for me to relax when I am not working" (Schaufeli et al., 2006). It is clear from the content of these items that they reflect the negative consequences of a compulsive tendency to work rather than excess work. After changing the composition of both scales accordingly, the internal consistencies of the WE- and WC-scales were satisfactory (Cronbach's  $\alpha$  values of .80 and .86, respectively), whereas the correlation between both latent workaholism factors was .75.

Because of the "wrongly" loading WE-items and because of the length of questionnaire, an improved and shortened version of the DUWAS was developed using samples from The Netherlands and Japan (Schaufeli, Shimazu, & Taris, 2008).

A 10-item version of the DUWAS emerged, with five items in each scale (see Appendix 9.A.1). Correlations between the original and the shortened scales ranged between .90 and .95 in the Dutch and Japanese samples, and values of Cronbach's  $\alpha$  of both short scales ranged between .68 and .78. Correlations between both latent workaholism factors were .50 and .59 in the Dutch and Japanese samples, respectively.

Hence, it seems that the 10-item DUWAS is an appropriate research tool to study workaholism. Therefore, it will be used in the remainder of this chapter. Below, the same Dutch sample is employed as in the study of Schaufeli et al. (2008) but new additional results will be presented on the relationships of workaholism with various background variables, including age, gender, work hours, and occupational group. In Section 9.3, the correlates of workaholism as measured with the DUWAS are examined in a national Dutch sample of medical residents.

### **9.2.1. The Relationship of Workaholism with Demographic and Work-Related Factors**

The Dutch database ( $N = 7,594$ ) is a composite sample consisting of 52% women and 48% men with a mean age of 36.4 years ( $SD = 9.5$ ). The majority (71%) was approached by their organization or occupational health service to participate in an employee satisfaction survey or in a health check-up, and filled out either a computerized or a paper-and-pencil questionnaire. The remaining responders (29%) were recruited through the Internet.

Men score significantly higher than women on both workaholism scales. Mean WE-scores for men are  $M = 2.61$  ( $SD = .60$ ) and for women  $M = 2.46$  ( $SD = .59$ ) ( $t_{(7446)} = 10.82$ ;  $p < .001$ ); mean WC-scores for men are  $M = 2.04$  ( $SD = .64$ ) and for women  $M = 1.98$  ( $SD = .62$ ) ( $t_{(7446)} = 3.67$ ;  $p < .001$ ). Moreover, although the correlation of WC with age is statistically significant ( $r = -.05$ ;  $p < .05$ ), it lacks practical relevance. No significant correlation with age was observed for WE.

As expected, the actual number of work hours per week correlates positively and significantly with both workaholism scales; correlations are stronger for WE ( $r = .43$ ;  $p < .001$ ) than for WC ( $r = .15$ ;  $p < .001$ ). Correlations with contractual work hours are also positive and significant but weaker: WE ( $r = .24$ ;  $p < .001$ ) and WC ( $r = .06$ ;  $p < .01$ ). The fact that relationships of long working hours with WE are stronger than with WC underscores the content validity of the former scale that assesses working excessively hard. These results, particularly regarding WE, agree with studies that showed positive correlations between workaholism and the time committed to the job, e.g., working during weekends and taking work home (Burke, 1999; Kanai et al., 1996; Kanai & Wakabayashi, 2001; Spence & Robbins, 1992; Taris et al., 2005).

Figure 9.1 shows that levels of WE ( $F_{(9,6243)} = 54.96$ ;  $p < .001$ ) and levels of WC ( $F_{(9,6243)} = 8.39$ ;  $p < .001$ ) differ systematically between various occupational groups. Post-hoc analyses of variance revealed that compared to other occupational groups, managers, entrepreneurs, executives, and medical residents have the highest WE

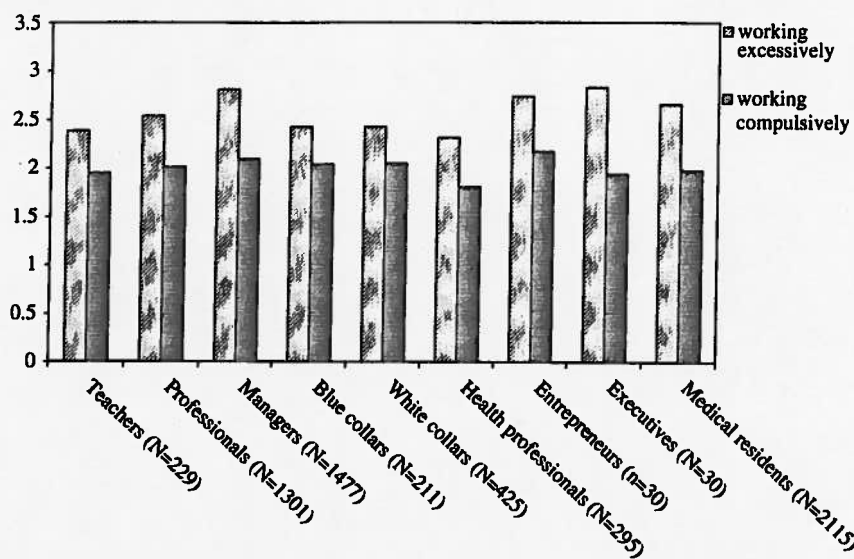


Figure 9.1: Levels of workaholism in various occupational groups.

scores, whereas health professionals, and blue and white-collar workers have the lowest WE scores. A slightly different picture emerges regarding WC with differences being somewhat smaller. Again, the highest WC scores are observed for entrepreneurs and managers, but blue and white-collar workers also score high. The lowest scores on WC are for health professionals and for executives. Since WE and WC have the same number of items and are scored on similar answering scales, their levels can be compared. It appears that, overall, levels of WC are significantly lower than levels of WE ( $t_{(7479)} = 70.19; p < .001$ ). Taken together, workaholism seems most prevalent in entrepreneurs and managers, whereas executives seem to work hard, but do less compulsively so.

In sum, based on our analysis of a large Dutch database we conclude that: (1) men score slightly higher on workaholism than women; (2) workaholism is not meaningfully related to age; (3) workaholism is positively related to the total working hours as well as to the contractual working hours, although the former relationship is stronger than the latter; (4) systematic differences exist among occupational groups with managers, entrepreneurs, executives, and medical residents showing the highest workaholism scores; and (5) the previous results are more salient for the excess work component than for the compulsive work component.

### 9.3. A Study of Workaholism among Medical Residents

Medical residents work excessively hard. Compared to all other occupational groups included in the Dutch database, they spend most time at their jobs, both formally

( $M = 43.86$ ,  $SD = 4.99$  vs.  $M = 28.23$ ,  $SD = 7.89$ ;  $t_{(5860)} = 284.19$ ;  $p < .001$ ), as well as actually ( $M = 50.75$ ,  $SD = 7.25$  vs.  $M = 44.80$ ,  $SD = 4.94$ ;  $t_{(5860)} = 242.08$ ;  $p < .001$ ). In a national US-survey on working conditions of medical residents it was found that, on average, residents were 56.9 h per week on call in the hospital (Daugherty, DeWitt, & Rowley, 1998), a figure that is comparable to our Dutch sample. So an important precondition for workaholism seems to be met by many medical residents; they work excess hours.

To our knowledge, no quantitative study exists on workaholism among medical residents, despite the fact that they are seen as a prototypical risk-group (e.g., Harpaz & Snir, 2003; Scott et al., 1997). The stressful nature of medical residency is well-documented. For instance, a recent systematic overview found 15 articles on resident burnout that suggests that burnout levels are high among residents and may be associated with depression and problematic patient care (Niku, 2004). Since it has been argued that workaholism might act as a root-cause of burnout (Maslach, 1986), it can be speculated that the combination of excess working hours and high burnout levels makes it likely that workaholism is quite prevalent among medical residents. And indeed, as shown in the previous section medical residents are among the occupational groups with the highest levels of workaholism, as measured with the DUWAS.

### **9.3.1. Correlates of Workaholism**

Below we will examine in greater detail the correlates of workaholism among a nationally representative sample of Dutch medical residents ( $N = 2,115$ ). More specifically, relationships will be studied with job demands, job resources, and outcomes.

**9.3.1.1. Job demands** It is expected that both workaholism scales show positive relationships with various job demands because in their attempts to continue working, workaholics may go as far as to actively create more work for themselves; for instance, by making their work more complicated than necessary or by refusing to delegate work (Machlowitz, 1980). Accordingly, positive relationships were found between workaholism and job demands such as work overload and role problems (Burke, 2000; Burke & Koxsal, 2002; Kanai et al., 1996; Kanai & Wakabayashi, 2001). Taris et al. (2005) showed that the relationship between workaholism and exhaustion was partly mediated by perceived job demands: workaholics experience high job demands, which in turn are related to exhaustion. Also, positive relations were found between workaholism and number of work hours (Aziz & Zickar, 2006; Schaufeli et al., 2008) and work-home conflict (Aziz & Zickar, 2006; Bonebright, Clay, & Ankenmann, 2000; Schaufeli et al., 2008; Taris et al., 2005); workaholics work long hours and therefore feel that their jobs interfere with their personal lives.

In the present study we included in addition to more general job demands (i.e., work overload, working hours, role problems, and work-home conflict), mental

and organizational, and emotional demands. We feel that these demands are particularly important for medical residents because they have to process large quantities of information and make complicated decisions (mental demands), they work in a complex organizational environment (organizational demands), and they must deal with suffering patients and their families (emotional demands).

**9.3.1.2. Job resources** Compared to job demands, relationships of workaholism with job resources have not been studied often, perhaps with the exception of career prospects (Burke, 2001) and social relationships at work (Buelens & Poelmans, 2004; Schaufeli et al., 2008) which both appeared to be negatively related to workaholism. This agrees with the idea that even in unresourceful jobs workaholics work very hard because they are propelled by an obsessive inner drive rather than by extrinsic factors (Brett & Stroh, 2003). In the present study, we included in addition to more general job resources (i.e., social support from colleagues, job control, and participation in decision-making), also more specific resources that are particularly important for the resident's traineeship such as opportunities for learning and development, supervisory coaching, and performance feedback.

**9.3.1.3. Outcomes** Workaholics report relatively high levels of job strain and (mental) health complaints, particularly burnout (Andreassen, Ursin, & Eriksen, 2007; Burke, Richardsen, & Mortinussen, 2004; Schaufeli et al., 2008; Taris et al., 2005). This is compatible with the notion that by working excessively hard workaholics drain their energy backup which leaves them mentally exhausted (Maslach, 1986). Previous research has shown that working long hours is associated with elevated levels of strain and ill-health (Van der Hulst, 2003, for a review), presumably because workers who work hard have insufficient opportunity to recover from their excessive efforts (Sonnetag & Zijlstra, 2006). For that reason, in the present study not only burnout but also recovery was assessed.

In addition to poor mental health (i.e., burnout), workaholism is also consistently found to be related to poor subjective well-being (Aziz & Zickar, 2006; Bonebright et al., 2000; Buelens & Poelmans, 2004; Schaufeli et al., 2006). Since workaholism is conceived as an addiction this would imply that workaholics are unhappy with their lives.

So far, behavioral indicators of health have rarely been studied in relation to workaholism. An exception is the study of Burke and Matthiesen (2004) among Norwegian journalists, which showed no relationship between workaholism and number of sickness absence days during the previous year. This null-finding might be caused by the fact that instead of absence frequency absence duration was used as an outcome. The latter is namely considered to be an indicator of "involuntary" absenteeism that results from the inability rather than the unwillingness to come to work (Hensing, Alexanderson, Alleback, & Bjurulf, 1998). In contrast, absence frequency is considered to be an indicator of "voluntary" absenteeism and hence a function of employees' motivation. Therefore, we also included absence frequency in our study among medical residents. It is expected that workaholics are less



frequently absent because they are — almost literally — driven to work. Even more so, when feeling ill they might nevertheless decide to come to work (presenteeism; Aronsson, Gustafsson, & Dallner, 2000). Because of their strong inner drive to work we expect a positive relationship between workaholism and presenteeism: workaholics — although feeling ill — come to work.

Whereas some authors maintain that workaholics are extremely productive (e.g., Machlowitz, 1980; Peiperl & Jones, 2001), others have claimed the opposite (Oates, 1971; Porter, 2001). The latter argue that workaholics work hard rather than smart. Moreover, workaholics create difficulties for their co-workers, they suffer from perfectionism, they are rigid and inflexible, and they do not delegate (Killinger, 2006; Porter, 2001). Unfortunately, virtually no empirical research has been carried out on the relationship between workaholism and job performance (see Schaufeli et al., 2006, for an exception). We expect that, given the long list of negative attitudes and behaviors that might interfere with job performance (Scott et al., 1997, p. 291), workaholics are not necessarily good and perhaps even poor performers.

In sum: we expect workaholism to be: (1) positively related to job demands; (2) negatively related to job resources; and (3) positively related to burnout and presenteeism, and negatively related to happiness, sickness absence (duration and frequency), and performance.

### **9.3.2. Methods**

**9.3.2.1. Procedure and sample** All 5245 Dutch medical residents who were at October 1, 2005 included in the national register of the Royal Dutch Medical Association received a questionnaire by mail. A small group ( $N = 119$ ) indicated that they were no longer residents, which makes the total population  $N = 5126$ . A cover letter was included that explained the purpose of the study — a working conditions survey — and emphasized anonymity. In total 2115 medical residents responded (41.3%). The top three reasons for not responding were: “I am too busy” (22%), “The questionnaire is too long” (22%), and “I lack energy” (11%). The majority of the participants is female (60.7%) and the mean age of the sample is 31.5 years ( $SD = 3.5$ ). Almost 77% is married or lives together with a partner, and 32% of the respondents have one or more children.

**9.3.2.2. Measures** Workaholism was measured with the 10-item DUWAS (see earlier) that includes two scales: *WE* (5 items,  $\alpha = .67$ ) and *WC* (5 items  $\alpha = .77$ ). Both scales were scored on a 5-point rating scale, ranging from 1 (“never”) to 5 (“always”) and correlate positively ( $r = .46$ ,  $p < .001$ ). A confirmatory factor-analysis revealed that the hypothesized two-factor structure of the DUWAS fitted well to the data ( $\chi^2(34df) = 360.46$ ;  $GFI = .97$ ;  $AGFI = .95$ ;  $RMSEA = .07$ ,  $NFI = .92$ ;  $NNFI = .91$ ,  $CFI = .93$ ). The correlation between both latent factors was estimated  $.55$  ( $p < .001$ ).

**Job demands** *Work overload* (4 items;  $\alpha = .87$ ), *mental demands* (4 items;  $\alpha = .77$ ), *organizational demands* (5 items;  $\alpha = .64$ ), *emotional demands* (4 items;  $\alpha = .71$ ), were assessed with shortened scales (e.g., Bakker, Demerouti, De Boer, & Schaufeli, 2003; Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003) of the Questionnaire on the Experience and Evaluation of Work (QEEW), which is widely used by applied researchers in The Netherlands (Van Veldhoven, De Jonge, Broersen, Kompier, & Meijman, 2002). Example items are: "Do you have to work very fast?" (work overload); "Do you have a lot of meetings?" (organizational demands); "Does your work demand a lot of concentration?" (mental demands); "Does your work put you in emotionally upsetting situations?" (emotional demands). *Work-home conflict*, was measured with three items from the Survey Work-home Interference Nijmegen (SWING; Geurts et al., 2005; see Demerouti, Bakker, & Bulters, 2004). Participants were asked to indicate the extent to which their work negatively influences the home situation, e.g. "How often does it happen that you find it difficult to fulfill your domestic obligations because you are constantly thinking about your work?" (1 = "never", 5 = "always"). *Role conflict* was assessed with a self-constructed, 4-item scale that focuses on role conflicts between the resident's role as a doctor and as a trainee ( $\alpha = .64$ ). An example item is: "How often does it happen that because of your training, it is difficult to fulfill the requirements as a doctor?". Finally, an index was calculated of the percentage of *overtime* using the formula  $[(a-c)/c] \times 100$ , whereby  $a$  equals the number of actual work hours per week and  $c$  equals the number of contractual working hours per week. The mean percentage of overtime is 16.5% (SD = 14.7), meaning that, on an average, employees worked 16.5% longer than they should according to their official labor contract ( $M = 43.8$ ; SD = 5.0).

**Job resources** Using shortened scales of the QEEW, six job resources were assessed: *social support from colleagues* (3 items;  $\alpha = .87$ ), *job control* (3 items;  $\alpha = .73$ ), *opportunity to learn and to develop* (3 items;  $\alpha = .80$ ), *performance feedback* (5 items;  $\alpha = .83$ ), *supervisory coaching* (6 items;  $\alpha = .86$ ), and *participation in decision making* (4 items;  $\alpha = .77$ ). Example items are: "If necessary, can you ask your colleagues for help?" (social support); "Do you have freedom in carrying out your work activities?" (job control); "Do you learn new things in your work?" (opportunities to learn and to develop); "Does your work provide you with direct feedback on how well you are doing your work?" (feedback); "My supervisor stimulates me to develop my talents" (coaching); (participation in decision making). All demands and resources items were scored on a 5-point rating scale ranging from 1 ("never") to 5 ("always").

**Outcomes** Six different outcomes were measured, using nine indicators. First, burnout was assessed with three scales of the Dutch version (Schaufeli & Van Dierendonck, 2000) of the Maslach Burnout Inventory-Human Services Survey (MBI-HSS; Maslach, Leiter, & Jackson, 1996): *Emotional exhaustion* (8 items;  $\alpha = .89$ ), *depersonalization* (5 items;  $\alpha = .73$ ), and *personal accomplishment* (7 items;  $\alpha = .78$ ). Example items are: "I feel emotionally drained from my work" (exhaustion), "I don't really care what happens to some recipients" (depersonalization), and "I have accomplished many worthwhile things in this

job" (personal accomplishment). All items were scored on a 7-point scale ranging from 0 ("never") to 6 ("always"). High scores on exhaustion and cynicism and low scores on personal accomplishment are indicative of burnout. Second, *recovery* after work was assessed with a self-constructed scale (4 items;  $\alpha = .71$ ). An example item is "When I come home from work I have time to recover". The answering scale ranges from 1 ("never") to 5 ("always"). Third, subjective well-being was assessed in terms of *happiness* (Diener, Suh, Lucas, & Smith, 1999) by a single item ("Taken everything together, how happy are you with your life?") that was scored on a 10-point scale ranging from 0 ("totally unhappy") to 10 ("extremely happy") ( $M = 7.7$ ,  $SD = 1.1$ ). Fourth, sickness absence was measured by asking the residents "How many days in the previous 12 months did you not work because of illness?" (*absence duration*), and "How many times have you stayed home because of illness" (*absence frequency*). The answering format was the number of days ( $M = 4.1$ ;  $SD = 13.1$ ) and a scale running from "0 times" (35.1%), via "1-3 times" (58.3%), "4-7 times" (4.8%) to "over 8 times" (1.1%), respectively. Fifth, *presenteeism* was measured with a single item "How often did you go to work in the previous year despite feeling sick?". Answering categories were "0 times" (21.2%), via "1-3 times" (66.3%), "4-7 times" (10.1%) to "over 8 times" (2.2%). Finally, *medical performance* was assessed with a self-constructed scale (6 items;  $\alpha = .69$ ). An example item is: "I make mistakes that have negative consequences for my patients" (1 = "has never occurred", 4 = "has often occurred").

### 9.3.3. Results

First, we analyzed both dimensions of workaholism separately. That is, we identified the most important job demands, job resources, and outcomes that are associated with WE and WC separately. Next, we *combined* scores on both dimensions in order to compare the job demands, job resources, and outcomes of "workaholics" (who score high on both dimensions), with that of "hard workers" (high on WE and low on WC), "compulsive workers" (high on WC and low on WE), and "relaxed workers" (low on both dimensions). Following the logic of the introduction of this chapter we expect that, compared to the three other groups, "workaholics" work in the most stressful and least resourceful jobs, and have the most unfavorable outcomes.

**9.3.3.1. Predicting working excessively and working compulsively** Using hierarchical multiple regression, both workaholism scales were independently regressed on job demands, job resources, and outcomes, respectively. So in total six regression analyses were performed. Age and gender were included in the first step because previous analyses (see earlier) revealed that these biographical variables were related to workaholism. In the next step, job demands, job resources, and outcomes were entered stepwise in order to identify the most important predictors within each of

Table 9.1: Predicting working excessively (WE): Standardized regression coefficients ( $\beta$ ).

	Separate clusters	Simultaneous analysis
<i>Job demands</i>		
Step 1: Gender (1 = female, 2 = male)	.05**	.03*
Step 2: Work overload	.42***	.39***
Work-home conflict	.24***	.21***
Overwork %	.07***	.08***
Role conflict	.08***	
Mental demands	.07***	.07***
Organizational demands	.06**	.05**
Percentage explained variance	44.8	
<i>Job resources</i>		
Step 1: Gender (1 = female, 2 = male)	.04*	
Step 2: Support colleagues	-.15***	-.07***
Participation decision-making	-.13***	
Feedback	-.10**	
Coaching	-.08**	-.08***
Percentage explained variance	6.0	
<i>Outcomes</i>		
Step 1: Gender (1 = female, 2 = male)	.06***	
Step 2: Exhaustion	.44***	.14***
Poor medical performance	.10***	.08***
Presenteeism	.08***	.03*
Depersonalization	.07**	.08***
Recovery	-.06**	
Happiness	-.05*	
Absence frequency	-.04*	
Percentage explained variance	33.3	47.0

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

these three clusters.<sup>1</sup> Tables 9.1 and 9.2 (first column) provide an overview of the results for WE and WC, respectively.

As expected from the analyses in the previous section, male residents score higher on WE than female residents. With the exception of emotional demands, *all* job demands that are included in the regression equation show positive relations with WE. The strongest relationships are observed for work overload and work-home

1. Please note that the term "predictors" is used as a technical statistical term. Since a cross-sectional design is used no causal inferences can be made.

Table 9.2: Predicting working compulsively (WC): Standardized regression coefficients ( $\beta$ ).

	Separate clusters	Simultaneous analysis
<i>Job demands</i>		
Step 1: Gender (1 = female, 2 = male)	.05*	.04*
Step 2: Work-home conflict	.34***	.24***
Role conflict	.12***	.07**
Mental demands	.10***	.08***
Emotional demands	.08***	.07**
Work overload	.06**	
Organizational demands	.06**	
Percentage explained variance	28.6	
<i>Job resources</i>		
Step 1: Gender (1 = female, 2 = male)	.06**	
Step 2: Opportunity to learn	-.16***	
Support colleagues	-.14***	-.07***
Feedback	-.11***	
Participation decision making	-.09***	
Coaching	-.08**	
Percentage explained variance	10.0	
<i>Outcomes</i>		
Step 1: Gender (1 = female, 2 = male)	.05*	
Step 2: Exhaustion	.38***	.24***
Depersonalization	.10***	.08***
Happiness	-.08***	
Recovery	-.08***	
Presenteeism	.07**	.05**
Absence frequency	-.06**	-.05**
Percentage explained variance	27.7	35.0

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

conflict. Residents who work excessively hard experience work overload, work-home conflict, mental and organizational demands, and role conflict, and they perform more overwork than is specified in their labor contract.

As far job resources are concerned, relationships with WE are less strong – 6% explained variance vs. 44.8% for job demands. Moreover, two resources (i.e., job control and opportunities for learning) were *not* included in the regression equation of WE. The remaining four job resources indicate that, compared to residents who work less hard, those who work excessively hard experience less social support from their colleagues, participate less often in decision-making, and receive less performance feedback and supervisory coaching.

Clearly, emotional exhaustion is the outcome that is most strongly related to WE. Except personal accomplishment and absence duration, all other outcomes are significantly related to WE in the expected direction. That is, compared to residents who work less hard, those who work excessively hard perform more poorly, depersonalize their patients more often, recover less well after a day on the job, and are less happy with their lives. On the other hand, they work more often while being ill (presenteeism) and are less frequently absent. In total 33.3% of the variance in WE is explained by these six outcomes.

Taken together, the results of regression analyses sketch a gloomy picture of excessively hard working, dutiful yet overburdened, exhausted, and unhappy medical residents, who neglect their patients and perform poorly.

Next, in order to reduce the overlap and identify the key variables that are associated with WE *across* the three clusters (job demands, job resources, and outcomes), the significant predictors that emerged from the previous three separate analyses were now included simultaneously into one hierarchical regression analyses. Again, we controlled for age and gender.

Work overload emerges as the most powerful predictor of WE, followed by work-home conflict, and emotional exhaustion, respectively: those who work excessively hard feel that they are overloaded and exhausted, and that their excessive work behavior triggers work-home conflicts. In addition to quantitative job demands like work overload and overwork, residents high on WE also suffer from high quantitative demands (i.e., mental and organizational demands). Only two job resources are maintained in the final analyses; poor support from colleagues and poor supervisory coaching. Quite alarmingly, depersonalization of patients and poor medical performance remain significant predictors of the resident's WE-score, meaning that working excessively hard is bad from the perspective of patient care. Finally, presenteeism is associated with working excessively hard.

Taken as a whole, our expectations that working excessively hard is related to job demands, lacking resources, and poor outcomes is corroborated, whereby job demands contribute most and job resources contribute least in explaining WE.

Similar analyses were carried out for WC. As can be seen from Table 9.2, men are also more compulsive workers than women.

As far as the job demands are concerned, the picture of WC differs from that of WE in the sense that qualitative demands (i.e., work-home conflict, and mental, emotional, and organizational demands) are more important than quantitative demands. To illustrate this point, the relationship with work overload is relatively weak and overwork percentage is not included in the regression equation at all. Regarding job resources; opportunity for learning is now included in the regression equation of WC together with the other resources that also predicted WE. As far as the outcomes are concerned, a similar pattern for WE emerges with emotional exhaustion as the most important predictor of WC. However, in contrast with WE, poor medical performance is not included in the regression equation of WC.

Taken together, compared to WE, percentages of explained variance of WC are somewhat higher for job resources but lower for outcomes and particularly for job

demands. The patterns of associations also differ slightly; in case of WC quantitative demands seem to be more important than qualitative demands, and poor learning opportunities are associated with WC (and not with WE), whereas poor medical performance is not associated with WC (but with WE).

Again, a hierarchical regression analyses was performed including all significant predictors that emerged from the three previous analyses. Emotional exhaustion and work-home conflict emerge as the most powerful predictors of WC, meaning that residents who work compulsively feel exhausted and experience conflicting demands between work and home. Furthermore, residents who work compulsively experience qualitative rather than quantitative demands; instead of being bothered by large quantities of work and long working hours, their obsession with work seems to be associated with qualitative demands (i.e., mental and emotional demands). Except for poor support from colleagues, job resources do not seem to play a role for residents who work compulsively. As far as outcomes are concerned, compulsively working residents seem to be dutiful because, rather than reporting sick when they feel ill, they continue working. Finally, like hard working residents, compulsive residents also tend to depersonalize their patients.

In sum, our expectations that working compulsively is related to job demands, lacking job resources, and poor outcomes is corroborated. Moreover, despite some differences, WE and WC are largely associated with similar demands (work-home conflict and mental demands), lack of resources (poor social support from colleagues), and outcomes (exhaustion, depersonalization, and presenteeism). This suggests that WE and WC assess a similar underlying construct: workaholism.

**9.3.3.2. Combining working excessively and working compulsively** Based on a median split, residents who scored high or low on WE and WC, respectively, were identified. Next, by combining high and low scores on WE and WC, four types of residents were distinguished: (1) "workaholics" ( $N = 827$ ) — who score high on WE and WC; (2) "hard working residents" ( $N = 286$ ) — who score high on WE and low on WC; (3) "compulsively working residents" ( $N = 238$ ) — who score low on WE and high on WC; and (4) "relaxed residents" ( $N = 633$ ) — who score low on WE and WC. In order to compare mean values on the three clusters of variables (i.e., 7 job demands, 6 job resources, and 9 outcomes) across these four groups, multivariate analyses of variance were carried out with gender as covariate.

We expected that, compared to the other three groups, workaholic residents would have unfavorable scores on job demands, job resources, and outcomes. A significant, overall multivariate effect was observed ( $F_{(66,5703)} = 18.42; p < .001$ ), indicating that scores on all 22 dependent variables differed systematically across the four groups. As can be seen from Table 9.3, subsequent univariate analyses revealed that — except for sickness absence duration — differences between groups were significant and in the predicted direction for *all* dependent variables.

Testing of post-hoc contrasts across all four groups resulted in a consistent picture. As expected, compared to the other three groups, workaholics exhibited the most unfavorable scores on most variables: 16 out of 21 (i.e., 76%). Moreover, on the remaining five variables workaholics scored less favorably than the relaxed group,

Table 9.3: Differences in job demands, job resources, and outcomes between "workaholics" ( $N = 827$ ), "hard working residents" ( $N = 286$ ), "compulsively working residents" ( $N = 238$ ), and "relaxed residents" ( $N = 633$ ).

	Workaholic	Hard working	Compulsively working	Relaxed	$F_{(3, 1920)}$
<i>Demands</i>					
Work overload	3.72 <sup>ab</sup>	3.63 <sup>cd</sup>	3.01 <sup>ad</sup>	2.96 <sup>bc</sup>	163.58 <sup>***</sup>
Overwork %	19.27 <sup>ab</sup>	18.74 <sup>cd</sup>	13.43 <sup>bc</sup>	13.41 <sup>ad</sup>	25.29 <sup>***</sup>
Work-home conflict	2.75 <sup>abc</sup>	2.39 <sup>adf</sup>	2.15 <sup>bef</sup>	1.91 <sup>sde</sup>	229.30 <sup>***</sup>
Role conflict	2.36 <sup>abc</sup>	2.11 <sup>adf</sup>	2.00 <sup>bef</sup>	1.81 <sup>cde</sup>	132.12 <sup>***</sup>
Mental demands	4.19 <sup>abc</sup>	4.01 <sup>ad</sup>	4.01 <sup>be</sup>	3.83 <sup>cde</sup>	47.64 <sup>***</sup>
Emotional demands	2.77 <sup>abc</sup>	2.60 <sup>ad</sup>	2.60 <sup>be</sup>	2.46 <sup>cde</sup>	38.01 <sup>***</sup>
Organizational demands	3.01 <sup>abc</sup>	2.96 <sup>adf</sup>	2.78 <sup>bef</sup>	2.62 <sup>cde</sup>	67.81 <sup>***</sup>
<i>Resources</i>					
Support colleagues	3.55 <sup>abc</sup>	3.59 <sup>ad</sup>	3.60 <sup>be</sup>	3.81 <sup>cde</sup>	36.10 <sup>***</sup>
Coaching	2.77 <sup>ab</sup>	2.89 <sup>a</sup>	2.84 <sup>c</sup>	2.97 <sup>bc</sup>	9.38 <sup>***</sup>
Job control	2.91 <sup>abc</sup>	3.09 <sup>a</sup>	3.05 <sup>b</sup>	3.12 <sup>c</sup>	11.10 <sup>***</sup>
Feedback	2.94 <sup>ab</sup>	3.12 <sup>ac</sup>	3.03 <sup>d</sup>	3.42 <sup>bcd</sup>	19.87 <sup>***</sup>
Opportunity to learn	3.56 <sup>abc</sup>	3.82 <sup>ad</sup>	3.69 <sup>bde</sup>	3.90 <sup>ce</sup>	35.87 <sup>***</sup>
Part in decision making	2.80 <sup>abc</sup>	3.09 <sup>a</sup>	3.04 <sup>bd</sup>	3.17 <sup>cd</sup>	30.13 <sup>***</sup>
<i>Outcomes</i>					
Exhaustion	2.68 <sup>abc</sup>	2.07 <sup>adf</sup>	1.88 <sup>bef</sup>	1.43 <sup>cde</sup>	221.87 <sup>***</sup>
Depersonalization	1.78 <sup>abc</sup>	1.41 <sup>ad</sup>	1.48 <sup>be</sup>	1.14 <sup>cde</sup>	69.47 <sup>***</sup>
Accomplishment	2.32 <sup>abc</sup>	2.23 <sup>adf</sup>	2.13 <sup>bef</sup>	2.02 <sup>cde</sup>	36.59 <sup>***</sup>
Recovery	2.83 <sup>abc</sup>	2.96 <sup>ad</sup>	3.08 <sup>b</sup>	3.16 <sup>cd</sup>	19.32 <sup>***</sup>
Happiness	7.27 <sup>abc</sup>	7.72 <sup>ad</sup>	7.77 <sup>be</sup>	8.02 <sup>cde</sup>	63.87 <sup>***</sup>
Presenteeism	2.07 <sup>abc</sup>	1.97 <sup>ad</sup>	1.91 <sup>b</sup>	1.82 <sup>cd</sup>	18.81 <sup>***</sup>
Absence frequency	1.77 <sup>ab</sup>	1.73	1.67 <sup>a</sup>	1.68 <sup>b</sup>	2.89 <sup>*</sup>
Absence duration	4.49	4.98	3.95	3.94	.51

Note: Similar superscripts indicate significant differences between the corresponding means.  
<sup>\*</sup> $p < .05$ , <sup>\*\*</sup> $p < .01$ , <sup>\*\*\*</sup> $p < .001$ .

meaning that on *all* variables (except absence duration) workaholic residents scored more unfavorably than their relaxed fellow residents. No significant difference was observed between workaholic residents and hard working residents concerning work overload, overwork percentage, and absence frequency. This means that 85% of the variables showed significant differences in the expected direction between workaholics and hard workers. No significant difference was observed between the workaholic residents and the compulsively working residents as far as work overload, coaching, and feedback is concerned. This means that, again, 85% of the variables



showed significant differences in the expected direction between workaholics and compulsive workers. Although few non-significant contrasts between groups were observed (15%), no significant unexpected differences were found. Hence, it can be concluded not only that workaholic residents score more unfavorably on *all* variables compared to the opposite group of relaxed residents, but also that the *combination* of working excessively hard and working compulsively is associated with more unfavorable job characteristics and outcomes than either working excessively hard or working compulsively separately.

#### **9.4. Conclusion and Discussion**

In this chapter a two-dimensional notion of workaholism is proposed. The first dimension — working excessively hard — agrees with the layman's perception that workaholics "always" work (McMillan & O'Driscoll, 2006). They work far beyond what is required by their jobs or their organization, or by what is necessary from an economic perspective. However, defining workaholism exclusively in terms of the number of working hours would be a mistake because it denies the underlying motivation that sets workaholics apart from mere hard workers. There are numerous reasons to work hard without being addicted to it. Therefore, we added a second constituting dimension, namely the obsession with work that manifests itself in working compulsively. Workaholics are propelled by an obsessive inner drive that urges them to work hard, even when they feel like not doing so. In other words it is the compulsive nature of the hard work that makes the difference.

Thus, we conceive workaholism as an obsessive, irresistible inner drive to work excessively hard. Not only is this definition in line with the ideas of the founding father of the concept of workaholism (Oates, 1968, 1971), but both constituting elements are also found in the majority of definitions that have been proposed during the past four decades or so (for reviews see Scott et al., 1997; McMillan & O'Driscoll, 2006; Ng et al., 2007). Seen from this perspective, our synthetic definition is the least common multiple of existing descriptions of workaholism.

##### **9.4.1. Measuring Workaholism**

Based on our definition of workaholism, a self-report instrument — dubbed Dutch Workaholism Scale (DUWAS) — is proposed that includes two subscales of five items each: WE and WC. Both scales are moderately correlated, sharing between about 20% and 30% of their observed and latent variances, respectively. The psychometric features of the DUWAS in terms of internal consistency and factorial validity are satisfactory. Moreover, its conceptual validity was demonstrated because WC and particularly WE were positively related to the number of working hours, which is a necessary (albeit not sufficient) hallmark of workaholism.

For the first time, workaholism has been studied using a large national database that includes a wide range of occupational groups. It appeared that the DUWAS is sensitive to differences in levels of workaholism across these groups. Workaholism seems to be particularly high among managers, entrepreneurs, executives, and medical residents. This is not very surprising because work in these jobs is never done and such "open ended" work environments constitute a fertile ground for workaholism to develop, particularly among those with an obsessive inner drive to work. Conversely, such individuals might also land in managerial, entrepreneurial, executive, or medical specialist jobs, of course!

It is concluded that the DUWAS is a reliable and valid self-report tool to assess workaholism that can be used — for instance — in future cross-national studies on the prevalence of workaholism. So far, such studies have relied on rather unsatisfactory proximal measures for workaholism such as the number of weekly working hours (e.g., Snir & Harpaz, 2006).

#### 9.4.2. *Workaholism among Medical Residents*

The validity of our workaholism measure has been studied in more detail in a national representative sample of Dutch medical residents, an occupational group that is considered prototypical for exhibiting workaholism (Harpaz & Snir, 2003; Scott et al., 1997). We defined workaholism as a "syndrome" — that is, as a set of two characteristics that occur together. This means that both scales that tap these characteristics should not only be interrelated, but should also be associated with similar features such as job demands, job resources, and outcomes. This was indeed the case. Separate regression analyses for job demands, job resources, and outcomes revealed that virtually all variables that were included in the analyses predicted WE and WC, with job demands explaining most variance (ranging between 29% and 45%), followed by outcomes (ranging between 28% and 33%), and job resources (ranging between 6% and 10%), respectively.

A more comprehensive analysis that included all predictors *simultaneously* — and thus accounting for overlap between the three clusters — revealed that work-home conflict and emotional exhaustion are the most powerful common predictors of WE and WC. This agrees with the notion that workaholics neglect their lives outside work and are literally "tired from working" (Killinger, 2006). In addition, other common yet less pronounced predictors of WE and WC were high mental demands, poor support from colleagues, depersonalization, and presenteeism. Thus residents who score high on either WE or WC experience high mental work demands, poor support from their fellow residents, they treat their patients in a callous way, and they come to work even when they feel sick. The major difference between predictors of WE and WC is that the former is more strongly related to quantitative job demands, notably work overload and overwork. This is not surprising given the nature of the WE-scale. Furthermore, it appeared that 7 out of 12 significant predictors of WE (58%) are similar to those of WC, whereas on the other hand, 7 out

of 10 predictors of WC (70%) are similar of those of WE. Thus, a substantial overlap exists between predictors of WE and WC — in qualitative as well as quantitative terms — so that we may conclude that the DUWAS assesses the workaholic syndrome.

This conclusion is corroborated when the scores on the WE and WC-scales are combined into four groups: “workaholics”, “hard workers”, “compulsive workers”, and “relaxed workers”. Of all four groups, the workaholic group scores most unfavorable on *all* 22 variables that were included in the analyses, except sickness absence duration. Previous studies also failed to show a relationship between workaholism and absence duration (e.g., Burke & Matthiesen, 2004), presumably because this is a measure of involuntary absenteeism (Hensing et al., 1998).

More detailed comparisons revealed that, compared to the relaxed residents, the workaholic group scored significantly more unfavorably on *all* variables, whereas compared with the hard working and the compulsively working group this was the case for 85% of the variables. Notable exceptions were that workaholics did not differ from hard workers in terms of work overload, overwork, and absence frequency, and from compulsive workers in terms of coaching, feedback, and absence frequency. The former results make sense because almost by definition hard workers feel overloaded and work long hours. The latter results agree with Porter (2001), who showed that perfectionists, who believe that no one else works to the same high standards, have poor social relationships at work that are characterized by anger and frustration. Porter’s definition of workaholics as perfectionists comes close to our compulsive workers.

In sum, our analyses showed that the *combination* of working excessively hard and working compulsively is particularly powerful in producing significant results that are not obtained when both dimensions are treated separately. In other words, it takes two to dance the workaholism tango.

**9.4.2.1. Outlook** Virtually all people, laymen and scholars alike, would agree that that working excessively hard constitutes the hallmark of workaholism. This overt, behavioral manifestation of workaholism is undisputed. The problem is with the covert mental processes that drive this excessive work behavior. Or framed differently, the basic issue in understanding workaholism is to identify the motivational process that is responsible for working so excessively hard. In doing so, we feel that it is crucial to make a sharp distinction between “good” and “bad” workaholism, whereby the former is defined as work engagement (Schaufeli & Salanova, 2007). This is not merely a semantic issue. First, there is accumulating evidence that workaholism — as defined as an irresistible inner drive to work excessively hard — can be distinguished empirically from work engagement — as defined in terms of vigor, dedication, and being pleurably absorbed in one’s work (Schaufeli et al., 2008; Schaufeli et al., 2006). Secondly, and most important from a theoretical perspective, it can be speculated that the underlying psychological mechanisms — i.e., motivational systems — differ fundamentally.

More particularly, workaholics are likely to be motivated by so-called performance goals, whereas engaged workers are motivated by mastery goals (Elliot,

2005). The former are competitive, other-referenced, and extrinsic, whereas the latter are directed at self-enhancement, self-referenced, and intrinsic. This agrees with observations of workaholics as perfectionists and narcissists: "Caught up in a compulsive drive to gain personal approval and public recognition of their success, these driven men and women live in a gerbil-wheel, adrenalin-pumping existence rushing from point A to point B, narrowly fixated on the next desired goal or accomplishment" (Killinger, 2006, p. 61). On the other hand, engaged employees work so hard because for them work is fun and they keep looking for new challenges in their jobs because they are motivated to learn and to develop themselves; essentially, they try to realize their full personal potential through their jobs (Bakker & Schaufeli, 2008; Schaufeli & Salanova, 2007).

In a somewhat similar vein, it can be argued that the work behavior of workaholics is primarily regulated by a prevention focus, whereas that of engaged employees is regulated by a promotion focus. Based on regulatory focus theory (Higgins, 2005), it can be speculated that workaholics are being pushed towards work because they want to prevent feeling bad (i.e., guilty or worthless) when they do not work — so basically they are propelled by an *avoidance* motivation. Engaged workers, on the other hand, are being pulled towards work because it promotes possibilities for learning and development — so basically they are propelled by an *approach* motivation.

To date, we can only speculate about possible different motivational systems, but by making a conceptual distinction between workaholism and work engagement, a new and exciting avenue for future research is opened. It seems that again, it takes two to tango.

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## **Appendix 9.A.1**

### **Working excessively (WE)**

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 stay busy and keep many irons in the fire.
4. I spend more time working than on socializing with friends, on hobbies, or on leisure activities.
5. I find myself doing two or three things at one time, such as eating lunch and writing a memo while talking on the telephone.

### **Working compulsively (WC)**

1. It's important to me to work hard even when I don't enjoy what I'm doing.
2. I feel that there's something inside me that drives me to work hard.
3. I feel obliged to work hard, even when it's not enjoyable.
4. I feel guilty when I take time off work.
5. It is hard for me to relax when I'm not working.