

## THE RELATIONSHIPS AMONG WORKAHOLISM, PROACTIVITY, AND LOCOMOTION IN A WORK SETTING

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We evaluated the relationship between workaholism and 2 individual difference variables relevant to an organizational context, namely: proactive personality and locomotion orientation. Specifically, we examined working excessively (WE), working compulsively (WC), and perceived self-efficacy, proactivity, and locomotion in a sample of nurses working in an Italian public hospital. Data were analyzed using confirmatory factor analysis and structural equation modeling. Because WE and WC were not distinct factors, a unitary workaholism factor was used when applying regression analysis. As expected, workaholism was related negatively to proactivity, and positively to locomotion. In contrast, its relationship with self-efficacy was nonsignificant. The practical implications of our findings and future research directions are discussed.

*Keywords:* workaholism, excessive work, compulsive work, proactive personality, locomotion orientation, self-efficacy.

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In the last few decades, since Oates (1968) coined the term workaholism for his addiction to work because it produced behavior patterns resembling those of an alcoholic, researchers have paid increasing attention to this behavior. The presence of this addiction may be facilitated by the changing nature of work in modern societies. New technologies enable employees to work outside their office, leading to less distinct boundaries between work and personal life, and to a higher number of hours devoted to work (Ng, Sorensen, & Feldman, 2007). Our aim in the current study was to single out individual difference variables that may be related to work addiction. We chose *proactive personality*, which indicates *individuals' ability to actively change their work environment* (Bateman & Crant, 1993; Seibert, Crant, & Kraimer, 1999), and *locomotion*, which involves *individuals "moving" from state to state to regulate their behavior* (Kruglanski et al., 2000). Researchers have shown that these constructs are associated with positive outcomes within the workplace, for example, the promotion of good performance, investment of efforts, and prosocial behavior. However, it is unknown whether or not they have a relationship with workaholism. Employees may be selected by organizations for their high level of locomotion. However, this trait could, in certain conditions, be an antecedent of workaholism.

Robinson (1998) defined *workaholism* as *the overindulgence in and preoccupation with work, often to the exclusion and detriment of the workaholic's health, intimate relationships, and participation in child rearing*. According to Robinson (1999), workaholism may be passed on from generation to generation through family dynamics. Robinson (1999) developed a self-report measure for workaholism, the Work Addiction Risk Test (WART), which is used to assess five dimensions: compulsive tendencies, control tendencies, impaired communication/self-absorption, inability to delegate, and self-worth. The first three dimensions have the strongest impact in discriminating workaholic from nonworkaholic individuals (Flowers & Robinson, 2002).

To measure workaholism, Spence and Robbins (1992) designed a self-report questionnaire, the Workaholism Battery (WorkBAT), comprising three components: work involvement, inner drive to work, and work enjoyment. Distinct models of workaholic behavior were identified by different combinations of the components: Nonenthusiastic workaholics were found to score high on the first two components and low on the third; enthusiastic workaholics scored high on all three components; workers with a high level of work involvement and work enjoyment and a low level of compulsion to work (inner drive) were considered work enthusiasts. Some subsequent researchers, however, have failed to find support for the 3-factor structure. Instead, they have classified workaholic behavior into two dimensions, that is, inner drive to work and work enjoyment (Kanai, Wakabayashi, & Fling, 1996; McMillan, Brady, O'Driscoll, & Marsh, 2002).

Schaufeli, Taris, and Bakker (2006) defined *workaholism* as *the tendency to work excessively hard and, being obsessed with work, in a compulsive way*. In response to the question of whether or not workaholism is “good” or “bad”, they stated that workaholism is an addiction to work, that is, “bad”, and that the concept of work engagement can be considered “good” workaholism (see also Schaufeli, Bakker, van der Heijden, & Prins, 2009a; Schaufeli, Taris, & Bakker, 2008). *Work engagement is a positive, fulfilling work-related state of mind that is associated with vigor, dedication, and absorption* (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Unlike workaholics, engaged workers are not compulsively driven to work: They work hard because they enjoy it. Therefore, instead of differentiating between “bad” and “good” forms of workaholism, Schaufeli et al. (2006) and Schaufeli, Taris, and van Rhenen (2008) distinguished workaholism from work engagement.

According to Schaufeli et al. (2006; 2009a), workaholism is composed of two dimensions: working excessively (WE; the behavioral dimension) and working compulsively (WC; the cognitive dimension). Schaufeli, Taris, and Bakker (2008) proposed a scale to measure these components, the Dutch Workaholism Scale (DUWAS). The WE subscale was adapted from the control tendencies subscale of the WART and the WC subscale was adapted from the inner drive scale of the WorkBAT. Different combinations of the two dimensions lead to different worker profiles: Individuals scoring high on both WE and WC are considered workaholics; a combination of high WE and low WC identifies hard workers; a combination of low WE and high WC characterizes compulsive workers; and individuals low on both dimensions are nonworkaholic or relaxed workers. In this study, we utilized the DUWAS and referred to Schaufeli and colleagues’ conceptualization of workaholism.

The negative effects of workaholism have been shown in the results of studies performed in different professional and cultural contexts. Workaholic employees of Dutch and Japanese companies showed higher rates of burnout than nonworkaholic employees (Schaufeli, Shimazu, & Taris, 2009). In a study by Kubota et al. (2010), workaholic Japanese nurses reported more sleep problems than their nonworkaholic colleagues. Schaufeli et al. (2009a) found that, compared to the other three worker profiles, Dutch medical residents with high levels of both WE and WC worked in unfavorable conditions characterized by high perceived job demands and low perceived job resources. As a consequence, their well-being was generally low (for the relationship of workaholism with burnout and well-being, see also Guglielmi, Simbula, Schaufeli, & Depolo, 2012; Kubota et al., 2011; Schaufeli, Bakker, van der Heijden, & Prins, 2009b). Workaholism is also related to lower levels of both life satisfaction and job performance (Shimazu & Schaufeli, 2009).

One mechanism that seems to be involved in the relationship between workaholism and job burnout (emotional exhaustion) is lack of rest. It is clear that working long hours limits the time for sleeping, relaxing, or hobbies (Falco et al., 2012; Sonnentag & Zijlstra, 2006; see also Kubota et al., 2011). With regard to performance, findings are contradictory, the likely reason for this being that different measures have been used. According to Ng et al. (2007), the relationship between workaholism and performance is positive for a short period but becomes negative in the long run. However, workaholics may have some positive influence through their connection with organizational citizenship behaviors (Schaufeli et al., 2006; see also Kravina, Falco, Girardi, & De Carlo, 2010).

Researchers who have analyzed the antecedents of workaholism have found that employees in the private sector and those in a managerial position are more likely to work a greater number of hours (Harpaz & Snir, 2003; see also Taris, van Beek, & Schaufeli, 2012). For gender, findings are inconsistent: No relationship was found between workaholism and gender by Burke (1999) or by Kravina et al. (2010), but Harpaz and Snir (2003), working with representative samples of the Israeli labor force, revealed that men, compared with women, have a higher likelihood of being workaholics. The influence of individual difference variables has been analyzed as well. Burke, Matthiesen, and Pallesen (2006) investigated whether or not the three WorkBAT components were associated with the Big Five personality dimensions and generalized self-efficacy. They found that extraversion (E) was positively related to work involvement and work enjoyment. They also found that neuroticism (N) and conscientiousness (C) were positively related and openness to experience (OE) was negatively related to feeling driven to work. Perceived self-efficacy was found to have a positive relationship with each component. It has also been shown that workaholism as measured using the DUWAS is positively associated with negative affect (see Balducci, Cecchin, Fraccaroli, & Schaufeli, 2012; Kravina et al., 2010; van Wijhe, Peeters, Schaufeli, & van den Hout, 2011). We chose proactivity and locomotion as antecedents because, although they have been widely studied in organizational contexts, their association with workaholism has not been analyzed.

## **Literature Review**

### **Proactivity and Workaholism**

Proactivity is a dispositional construct in which individuals are differentiated to the extent that they take action to change their environment to achieve effective performance (Bateman & Crant, 1993). In organizational settings, proactive employees try to anticipate change and persevere until the change is achieved. Proactive personality is predictive of objective measures of job performance

(Crant, 1995; see also Thomas, Whitman, & Viswesvaran, 2010), and of career success, measured with objective (e.g., salary) and subjective tools (e.g., career satisfaction; see Fuller & Marler, 2009; Seibert et al., 1999). It is positively correlated with social networking, namely the capacity to build social capital, which allows proactive individuals to challenge the status quo (Fuller & Marler, 2009; Thomas et al., 2010). Proactivity is also related to some of the Big Five dimensions: C, N (or emotional stability, i.e., a tendency toward the conditions of relaxation and self-confidence), E, and OE (Fuller & Marler, 2009; Thomas et al., 2010; see also Bateman & Crant, 1993). Of the three burnout components, proactivity is negatively related to emotional exhaustion, which is characterized by negative affect and a perception that one's emotional resources have been depleted, and depersonalization, which involves an indifferent response toward people encountered at work as an attempt to cope with work-related stress (see Alarcon, Eschleman, & Bowling, 2009). The third burnout component is reduced personal accomplishment, which represents a reduction in one's perceived occupational efficacy (for the burnout dimensions, see Maslach & Jackson, 1984). In our view, the core features of proactivity should make it unnecessary to work excessively. Furthermore, the personal characteristics of emotional stability, relaxation, and self-confidence should lead to the avoidance of working compulsively. Therefore, our first hypothesis is that proactivity would be negatively related to both WE and WC. This hypothesis was indirectly supported in the studies we have previously reviewed, showing that some variables are positively related to workaholism, but negatively to proactivity (e.g., job burnout, N, negative affect). Other variables, such as long-term good performance, have been found to be positively related to proactivity and negatively to workaholism.

### **Locomotion and Workaholism**

There are two modes that individuals can engage in to regulate their behavior and achieve their goals (Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000). The first mode is assessment, in which individuals carefully and critically assess their goals and the means to achieve them. The other mode is locomotion, in which individuals are oriented to rapidly "move" from state to state. To reach a goal, locomotors engage more in movement than in critical evaluation, and choose the action that most shortens the distance between a current and desired state. Examples of items in the locomotion scale developed by Kruglanski et al. (2000) reflect locomotors' characteristics: "I am a doer" (locomotors are persons of action) and "By the time I accomplish a task, I already have the next one in mind" (locomotors tend to start a new task as soon as they have completed the previous one). Achievement of successive goals enables them to maintain a condition of psychological movement. Kruglanski et al. (2000) have found that locomotion is associated with energy (i.e., psychological vitality), prompt

action (i.e., action-decision), and the ability to stay focused on a task (attentional control). In work settings, it is related to investment of efforts, good performance (Pierro, Kruglanski, & Higgins, 2006a, 2006b), and acceptance of organizational changes (Kruglanski, Pierro, Higgins, & Capozza, 2007).

Nonetheless, as high levels of locomotion could result in dependency on work, we predicted that this regulatory mode might be positively related to workaholism, or at least to WE. This is indirectly demonstrated by the fact that two items in the locomotion scale (Kruglanski et al., 2000) make explicit reference to workaholism concepts: "I am a workaholic" and "Most of the time my thoughts are occupied with the task I wish to accomplish".

### **Job Self-Efficacy**

We introduced a further individual difference variable, job self-efficacy, which is positively related to both proactivity (see e.g., Fuller & Marler, 2009; Trifiletti, Capozza, Pasin, & Falvo, 2009) and locomotion (Trifiletti et al., 2009). In addition, Capozza and Visintin (2012) found a positive correlation between locomotion and job-related self-efficacy when they examined nurses working in hospitals, which is the same professional category that was analyzed in the current study. Kravina et al. (2010) found in a study using the DUWAS that general self-efficacy was also positively related to workaholism: The highest self-efficacy scores were found among employees who were high in both WE and WC. The introduction of self-efficacy allowed us to test the predictive effects of proactivity and locomotion controlling for the contribution of this correlate of workaholism.

## **Method**

### **Participants and Procedure**

Of the self-report questionnaires that were distributed to nursing staff in an Italian public hospital, 215 were collected (response rate = 61.43%). The nursing staff members were given permission by the hospital executives to participate. They comprised 30 men, 178 women, and 7 who did not specify their gender. The age ranges most represented were 41-50 years (37.2%) and 31-40 years (29.3%). The most represented groups for length of service were over 20 years (41.9%) and between 16 and 20 years (20%). Participants received a survey package that included the questionnaire, a return envelope, and a letter explaining the study aims. Anonymity of responses was guaranteed. Participants placed completed questionnaires in return boxes, which were located in all the departments of the hospital, within one week.

For about 20 years, the nursing profession in Italy has required a three-year first-level degree. Nurses may work in public or private health care agencies,

private surgeries, and home care health services. Their workload of 36 hours per week is divided into shifts. In hospital departments, nurses' work is supervised by a coordinator who has a first-level degree, a university master's degree in management, and professional experience of at least three years.

### Measures

**Workaholism.** We used the 10-item DUWAS to measure WE (5 items) and WC (5 items). Examples of items are: "I often feel that there's something inside me that drives me to work hard" (WC) and "I stay busy and keep many irons in the fire" (WE). Participants were asked to indicate how often they had these feelings. Responses were given on a 7-point Likert scale, ranging from 1 (*never*) to 7 (*always*).

**Locomotion.** The 12-item scale developed by Kruglanski et al. (2000) was used to measure locomotion. Sample items are: "By the time I accomplish a task, I already have the next one in mind," and "When I decide to do something, I can't wait to get started".

**Proactivity.** Proactivity was assessed with the 10-item shortened version (Seibert et al., 1999) of Bateman and Crant's (1993) 17-item Proactive Personality Scale. Sample items are: "No matter what the odds, if I believe in something I will make it happen", and "I am constantly on the lookout for new ways to improve my life".

**Self-efficacy.** To measure perceived self-efficacy, we used the Italian adaptation (Pierro, 1997) of the 17-item scale developed by Sherer et al. (1982). Nine items were selected and adapted to a work setting. Sample items are: "If I am unable to do a task the first time, I keep trying until I succeed", and "At work, when I try to learn something new, I immediately give up if I do not succeed" (reverse coded). For locomotion, proactivity, and self-efficacy, a 7-point response scale – anchored by *absolutely false* and *absolutely true*, with *neither/nor* as the midpoint – was used. Higher scores indicate higher levels of locomotion, proactivity, and self-efficacy.

### Data Analysis

Data were analyzed using SPSS version 17.0 and LISREL version 8.7 (Jöreskog & Sörbom, 2004). To test the conceptual distinction between constructs, confirmatory factor analysis (CFA) was applied. The hypothesized relationships among locomotion, proactive personality, self-efficacy, and workaholism were tested using structural equation modeling (SEM); regression analysis with latent variables was applied. We used the chi square ( $\chi^2$ ) test, the comparative fit index (CFI), and the standardized root mean squared residual (SRMR) as indices of goodness of fit. A model fits the data well if the  $\chi^2$  value is nonsignificant, the CFI is equal to or greater than .95, and the SRMR is equal to or lower than .08 (see

Hu & Bentler, 1999). For each construct, we created two parcels using the item-to-construct balance method (Little, Cunningham, Shahar, & Widaman, 2002). In this method, a single construct model is tested to obtain the item loadings. The two items with the highest loadings are used to anchor the two parcels. The two items with the next highest loadings are then added to the anchors in an inverted order. If further items are available, the basic procedure is repeated by assigning lower loaded items to higher loaded parcels (Little et al., 2002). Analyses were performed on covariance matrices using the maximum likelihood method.

## Results

A composite score was obtained for each measure by averaging the respective items. The means, standard deviations, and alpha coefficients are reported in Table 1. As shown in the table, participants described themselves as effective in their work, and rather prone to locomotion and proactivity. They also recognized that they were inclined to work excessively rather than compulsively.

Table 1. *Descriptive Statistics and Reliabilities*

|                       | <i>M</i> | <i>SD</i> | $\alpha$ |
|-----------------------|----------|-----------|----------|
| Working excessively   | 4.51     | 1.19      | .64      |
| Working compulsively  | 3.75     | 1.35      | .73      |
| Locomotion            | 5.46     | 0.62      | .72      |
| Proactive personality | 5.12     | 0.85      | .83      |
| Job self-efficacy     | 6.16     | 0.75      | .72      |

The CFA findings showed that the 5-factor model fit the data well:  $\chi^2(25) = 36.90$ ,  $p = .059$ ; SRMR = .039; CFI = .99. In addition, loadings of indicators were all significant ( $p < .001$ ) and higher than .66. However, WE and WC were not distinct factors: The 95% confidence interval, obtained by considering two standard errors above and two standard errors below the estimated correlation ( $\phi = .89$ ,  $p < .001$ ), included the perfect correlation. Therefore, we tested a 4-factor CFA model in which workaholism was a unidimensional construct. The reliability of the 10-item scale was .81, the mean score was 4.13, and the standard deviation was 1.15. The two indicators of the unitary workaholism construct were obtained using the procedure developed by Little et al. (2002). The model showed that the four personality variables represented nonoverlapping constructs: Their correlations were all significantly lower than 1 (the correlations between indicators of the four constructs are available from the corresponding author upon request).

Regression analysis was applied to test the relationships between the personality variables. The measures of goodness of fit showed that the model was a good fit



to the data:  $\chi^2(14) = 10.90, p = .69$ ; SRMR = .020; CFI = 1.00 (see Figure 1). As we predicted, workaholism was positively related to locomotion and negatively related to proactivity. In contrast, the association between workaholism and self-efficacy was nonsignificant. In a further analysis, although WE and WC were overlapping constructs, we applied regression using them as separate outcomes. Findings revealed that locomotion was positively related to both WC and WE:  $\gamma = .57, p < .001$ , and  $\gamma = .60, p < .001$ , respectively; proactivity showed a negative association with both components:  $\gamma = -.38, p < .01$ , for WC, and  $\gamma = -.32, p < .05$ , for WE. The self-efficacy relationships were nonsignificant. Thus, locomotion and proactivity were related to the same extent to both components of workaholism.

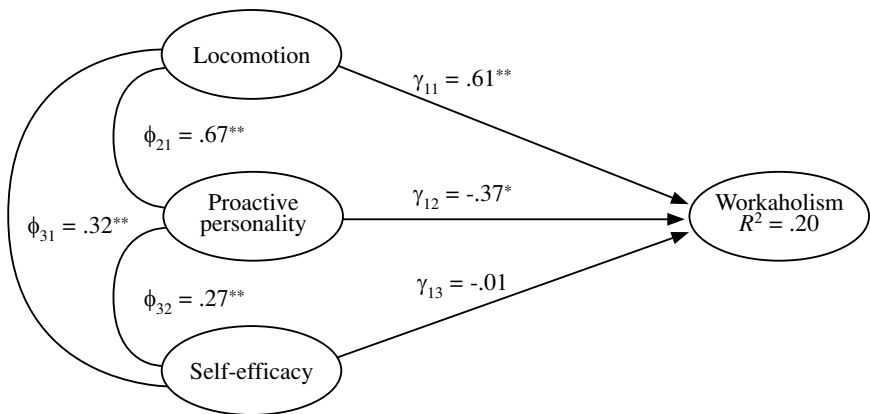


Figure 1. *The relationships among workaholism and locomotion, proactivity, and self-efficacy.*  
*Note.* Curved paths denote correlations between latent variables. Completely standardized parameters are displayed. \*  $p < .01$ , \*\*  $p < .001$ .

## Discussion

The results show that workaholism was positively related to locomotion, and negatively related to proactivity. Perceived self-efficacy was not related to work addiction (for a similar result, see Guglielmi et al., 2012). Thus, our findings enhance the literature by adding proactivity and locomotion to the other personality constructs related to workaholism.

We also found that the DUWAS subscales of WE and WC were not distinct dimensions. It is worth noting that this finding is not unusual. In many studies in which SEM has been applied, WE and WC have been used as indicators of a same latent construct obtaining a good adaptation to data (see e.g., Guglielmi

et al., 2012; Kubota et al., 2011; Shimazu, Schaufeli, & Taris, 2010; van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012; van Wijhe, Peeters, & Schaufeli, 2013). In such studies the two components could be two distinct first-order factors underlying a second-order construct corresponding to workaholism. However, the aforementioned researchers did not test this hierarchic solution. In other studies, the bidimensional structure of DUWAS has not been tested: All items have been aggregated to measure the unitary workaholic syndrome (see Balducci et al., 2012). We believe that it is generally easier to find the bidimensional structure of DUWAS using samples that include employees from different organizations. WE and WC are correlated to a different extent with both job demands (positively) and job resources (negatively) (see Schaufeli, Taris, & Bakker, 2008). Therefore, variations in these characteristics across organizations should affect WE and WC differently, reducing their covariation.

There are several limitations in this study. The correlational design did not allow us to draw conclusions on the causal relationships between the personality constructs. Future researchers should test our hypotheses by using longitudinal designs, or experimental designs in which proactivity and locomotion are manipulated (for experimental manipulations of locomotion, see e.g., Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2012). Another limitation is that we tested the hypotheses considering only one profession. Future researchers should test the relationships between proactivity, locomotion, and workaholism. They could examine professions that are characterized by different degrees of workaholism; for example, Taris et al. (2012) found that nurses exhibited the lowest level and managers the highest level of WE.

Our findings have practical implications. Strategies should be found to weaken the positive relationship of locomotion with workaholism. In a study on the complementary effects of locomotion and assessment across levels of analysis, Pierro, Presaghi, Higgins, Klein, and Kruglanski (2012) found that locomotors performed best in teams with members who were assessors and vice versa. Members of high assessment teams may serve as a check on the locomotors' haste and eagerness, resulting in an improved performance by the locomotors. High assessment team members may restrain locomotors from rushing into ineffectual actions simply because these actions are currently available. Consequently, locomotors working with assessor colleagues may not only improve their performance, but also limit their inclination toward compulsive and excessive work. Organizations should, therefore, consider regulatory mode complementarity in designing work teams. The outcome of this could be better performance and less workaholism.

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