Beyond workaholism: Towards a general model of heavy work investment☆

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ABSTRACT

Although the term workaholism is widely used, little consensus exists about its meaning, and there is a great need for further theoretical and methodological advancement. We attempt to address this need by introducing the concept of Heavy Work Investment (HWI), and viewing workaholism as only one of its subtypes. Furthermore, we propose a model consisting of four main components: HWI, its possible predictors, its types, and its outcomes.

In this model, using Weiner’s (1985) attributional framework, we differentiate between situational and dispositional types of HWI, each with its own subtypes, as based on the predictors of such an investment. For example, financial-needs-based and employer-directed are situational subtypes, whereas workaholism and work-devotion are dispositional subtypes. Based on the proposed HWI model, we compare dispositional investors with situational investors.

Finally, the measurement of HWI, as well as future research directions (study of situational investors, research across time and cultures, and exploration of inter-generational similarity/difference) is also discussed.

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1. Introduction

By the term workaholics, Oates (1971) refers to people whose need to work has become so exaggerated that it may constitute a danger to their health, personal happiness, interpersonal relations and social functioning. Studies of workaholism resulted initially in a large volume of clinical and anecdotal data (e.g., Killinger, 1991; Machlowitz, 1980; Waddell, 1993), causing scholars to lament the lack of conceptual and methodological rigor (e.g., Scott, Moore, & Miceli, 1997). Recent studies have adopted better procedures, resulting in quantitative data that are amenable to statistical analysis (e.g., Aziz & Zickar, 2006; Bakker, Demerouti, & Burke, 2009; Chamberlin & Zhang, 2009; Harpaz & Snir, 2003; Russo & Waters, 2006; Schaufeli, Taris, & van Rhenen, 2008; Shimazu, Schaufeli, & Taris, 2010). Yet despite the common use of the term “workaholism,” little agreement exists as to its meaning beyond its core element: heavy work investment.

This theoretical paper serves two main objectives. The first is to stress that workaholism is only one of the subtypes of heavy work investment. Namely, every workaholic is a heavy work investor, but not every heavy work investor is a workaholic. The second is to propose a model in which, using Weiner’s (1985) attributional framework, we differentiate situational from dispositional types of heavy work investment, each with its own subtypes, as based on the predictors of such an investment.

Several writers have focused on the negative aspects of workaholism (e.g., Killinger, 1991; Porter, 1996; Robinson, 1989, 2007; Schaufeli, Shimazu, & Taris, 2009; Taris, Schaufeli, & Verhoeven, 2005). For instance, Robinson (1989) defines workaholism as a progressive, potentially fatal disorder of work addiction, leading to family disintegration and an increased inability to manage work habits and life domains. Rooted in the addiction paradigm, one of the earliest measures of workaholism is the Work Addiction

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Risk Test (WART: Robinson, 1989). Workaholism, as measured by WART, includes five dimensions: Compulsive Tendencies, Control, Impaired Communication/Self-Absorption, Inability to Delegate, and Self-Worth (Flowers & Robinson, 2002). Nevertheless, despite Robinson's quite extensive use of the WART, its external validity needs additional examination. With few exceptions (e.g., Taris et al., 2005), most samples have included students (that are typically young and do not necessarily work), members of Workaholics Anonymous (which constitute a biased/range-restricted sample), or psychotherapists as expert observers (e.g., Flowers & Robinson, 2002; Robinson, 1996, 1999).

According to Schaufeli et al. (2009), workaholism is negatively conceptualized as working excessively and working compulsively. Based on this conceptualization, they propose a two-scale, ten-item workaholism measure, dubbed the Dutch Workaholism Scale (DUWAS). Satisfactory psychometric properties of the DUWAS are indicated (e.g., Del Libano, Llorens, Salanova, & Schaufeli, 2010; Schaufeli et al., 2009).

On the other hand, some writers view workaholism positively, as involving a pleasurable engagement at work (Machlowitz, 1980; Sprankle & Ebel, 1987). For example, Machlowitz (1980:16) found that “as a group, workaholics are surprisingly happy. They are doing exactly what they love – work – and they can’t seem to get enough of it.” Likewise, Snir and Zohar (2008) found that workaholics experience more positive affect during work than during leisure activity, by comparison to non-workaholics. Moreover, they found no significant differences between workaholics and non-workaholics regarding the likelihood of performing work-related activities during leisure activity, or in the levels of physical discomfort and negative affect during the weekend. This suggests no indications of work addiction, such as the inability to stop working, and withdrawal symptoms.

Other writers differentiate negative from positive workaholism types. For example, Scott et al. (1997) identify three types of workaholism patterns: compulsive dependent, perfectionist, and achievement oriented, and signify the first two as negative types, the third positive. Spence and Robbins (1992) based their characterization of workaholism on three attitudinal work-related properties: involvement, drive (due to inner pressure), and enjoyment. They define a workaholic as a person with high scores in work involvement and drive, and low scores in work enjoyment. They contrast this profile with work enthusiasm, defined as high involvement and enjoyment and low drive. Hence, instead of differentiating negative and positive types of workaholism, Spence and Robbins (1992) differentiate workaholism — being negative, from work enthusiasm — being positive. Work enthusiasm is similar to the recently introduced concept of work engagement, which refers to a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli, Taris, & Bakker, 2006; Schaufeli et al., 2009). Based on the above conceptualization, Spence and Robbins (1992) developed a three-scale Workaholism Battery (WorkBAT), which is a widely used measure in workaholism research. Despite apparent polarity, Spence and Robbins (1992) reported that their largest sub-group (19% of the sample) scored highly in all three aforementioned work-related properties (i.e., involvement, drive, and enjoyment), and therefore labeled them enthusiastic workaholics. According to this finding, work drive and work enjoyment are not opposites and can be viewed as orthogonal dimensions. Some research supports the psychometric properties of the Workaholism Battery (e.g., Burke, 2001; Spence & Robbins, 1992), but its factorial structure is subject to some controversy (e.g., Huang, Hu, & Wu, 2010; McMillan, Brady, O’Driscoll, & Marsh, 2002).

Regardless of statistical properties, it is noteworthy that the Workaholism Battery is derived from three attitudinal constructs that partially overlap other well-established concepts: work involvement and drive are not entirely differentiated from work centrality and job involvement. This also holds regarding work enjoyment and job satisfaction. According to McMillan and O’Driscoll (2006), it is feasible that work drive and enjoyment are merely antecedents that trigger workaholic behavior. Finally, Spence and Robbins’ Workaholism Battery does not measure the feature which we consider a conspicuous aspect of workaholism, namely long work hours. That is, one may exhibit high involvement and high drive but work regular workdays. In our opinion, qualifying such an individual as a workaholic is erroneous.

2. Towards a general model of heavy work investment

The foregoing short description of the state of workaholism research indicates a great need for further theoretical and methodological development. As noted above, there is little consensus concerning the meaning of workaholism, as reflected in its negative versus positive conceptualizations, and the attitude–behavior controversy. There is also an implicit, though prevalent, assumption in the popular press and among practitioners that if one invests heavily in his/her work, he/she is most likely a workaholic (e.g., Downey Grimsley, 1999; Tuckman, 2006). In the present paper we attempt to address these shortcomings, by introducing the two-dimensional concept of Heavy Work Investment (HWI), and viewing workaholism as only one of its subtypes. Furthermore, we propose a model, presented in Fig. 1, consisting of four main components: HWI, its possible predictors, its major types, and its outcomes.

The model shows the major sets of variables and the most straightforward relationships considered to be of primary importance in the study of HWI. The arrows indicate that an attempt should be made to determine the extent to which variables of one set predict (in a statistical sense) variables of another set. Possible moderators in relationship between HWI and its outcomes are also outlined.

2.1. Heavy Work Investment (HWI): a two-dimensional concept

The shortcomings of previous workaholism research led Snir and Zohar (2008) to define workaholism as heavy time investment in work that does not stem from external demands (e.g., financial needs). This behavior-based definition does not overlap possible attitudinal predictors (e.g., work centrality, job involvement) or outcomes (e.g., job satisfaction). However, assessment of
workaholism merely according to the time dimension (e.g., Harpaz & Snir, 2003; Snir & Harpaz, 2004) is somewhat simplistic, since it disregards how one acts during working time. According to Jacobs and Gerson (2004), the intensity of work is as important as the amount of time it takes. Thus, a second important dimension that should be considered is effort. This means the amount of either physical or mental energy allocated to work (Becker, 1985). Indeed, workaholics are intense, energetic, and competitive as the amount of time it takes. Thus, a second important dimension that should be considered is effort. This means the amount of either physical or mental energy allocated to work (Becker, 1985). Indeed, workaholics are intense, energetic, and competitive (Machlowitz, 1980). Naughton (1987) asserts that workaholics demonstrate endless energy in their work settings. Clark, McEwen, Collard, and Hickok (1993) also reported a positive correlation between workaholism and energy levels.

In our view, while non-steaming from external demands is a specific workaholism feature, time and effort investments in work constitute the two core dimensions of HWI in general. The HWI concept incorporates these two core dimensions while eschewing a priori positive or negative associations (an example of the latter being the term workaholism, patterned after alcoholism). Consequently, one can test positive and negative outcomes without risking criterion contamination.

A question may be raised, though, whether a heavy work investor has to be high on both dimensions in order to be classified as such. There are some indications that time and effort investments in work are positively correlated. For instance, according to an Experience-Sampling study, in which respondents provided randomly sampled self-reports over a one-week period, daily work hours were found to be strongly correlated with performing work-related activity and thinking about work-related issues (Snir & Zohar, 2008). Contradictory examples easily come to mind: staying late in the office (while in fact hardly working) just to impress the boss; or by contrast, working intensively only for a limited duration (e.g., at peak hours). However, using McMillan and O’Driscoll’s (2006) terminology, we suggest that both high frequency (i.e., time) and intensity (i.e., effort) are core dimensions of HWI. Similarly, Hewlett and Buck Luce (2006) claim that Extreme Jobs demand a high number of work hours (60 or more a week), as well as having five or more out of ten specific characteristics such as fast-paced work under tight deadlines, an unpredictable flow of work, and an inordinate volume of work that amounts to more than one job.

2.2. Predictors of HWI

Broadly, there are three main categories of possible predictors of HWI: background variables, external (to the person) variables, and internal (to the person) variables.

2.2.1. Background predictors

Among the most relevant background predictors of HWI are gender and parenthood. For example, in a cross-national study workaholism was found to be primarily a male phenomenon (Snir & Harpaz, 2006). Wharton and Blair-Loy (2002) state that employed women in the industrialized world continue to bear more responsibility for family and children than do their male counterparts so they are more often considered candidates for a part-time work. According to a cross-national study of industrialized countries, for wives, being a parent was associated with a reduction in hours of paid work in all 10 countries (Jacobs & Gerson, 2004). Rothbard and Edwards (2003) found that for women, increased time investment in either work or family reduced productivity. Similarly, Hewlett and Buck Luce (2006) claim that Extreme Jobs demand a high number of work hours (60 or more a week), as well as having five or more out of ten specific characteristics such as fast-paced work under tight deadlines, an unpredictable flow of work, and an inordinate volume of work that amounts to more than one job.

their care-giving activities. Fathers invested more weekly hours in work than childless men, whereas mothers invested fewer weekly hours in work than childless women.

A third relevant background predictor of HWI is education level. Highly-educated people work relatively long hours (Jacobs & Gerson, 1997; Kuhn & Lozano, 2005; Maume & Bellas, 2001). This is presumably due to the opportunity provided by higher education for jobs that are more intrinsically and extrinsically satisfying, but also open-ended and demanding.

2.2.2. External (to the person) predictors

Not surprisingly, time investment in work has proved positively related to financial needs (Smith Major, Klein, & Ehrhart, 2002), as well as to holding a professional or managerial position (Jacobs & Gerson, 1997). Possible organization/industry-related external predictors of HWI are employer/supervisor demands (Clarkberg & Moen, 2001; Maume & Bellas, 2001), organizational culture (Burke, 2006a; Porter, 1996), and type of industry (e.g., Kunda, 1992; Perlow, 1998; Sharone, 2004). For example, although workers in the high-tech industry are theoretically free to work at their own pace, they tend to extend their work hours, putting in 50 to 70 h per week (Sharone, 2004). Sharone (2004) shows how a culture of excellence and a structure of comparative performance create the individual’s “choice” to work long hours. Moreover, based on a study in a large high-tech corporation, managers also use bureaucratic means to control the hours that employees work, such as imposing demands, monitoring, and penalizing employees who resist managerial control, even when they devise creative ways to schedule and complete their work (Perlow, 1998).

Finally, possible macro-level external predictors of HWI are labor-market conditions, such as labor unions policy (Alesina, Glaeser, & Sacerdote, 2005) and cross-cultural differences (Snir & Harpaz, 2009). For example, Snir and Harpaz (2009) found that time investment in work is heavier in societies where survival values are important (i.e., societies that emphasize economic and physical security) than in societies where self-expression values are important (i.e., societies that emphasize subjective well-being, self-expression and quality of life).

2.2.3. Internal (to the person) predictors

By virtue of the Person–Situation Interaction Theory (Pervin, 1989) we recognize that internal (to the person) variables are also important for the prediction of HWI. Accepting Kanungo’s (1979) recommendation not to confuse a construct and its antecedents, we view addiction to and passion for work as (the two best known) internal predictors of HWI. In our view, the difference between addiction to and passion for work is similar to the distinction of Vallerand et al. (2003) between Obsessive Passion (OP) and Harmonious Passion (HP). OP occurs when individuals feel compelled to engage in an activity because of internal contingencies that control them; HP occurs when individuals have freely accepted an activity as important to them without any contingencies attached to it.

Other possible internal predictors of HWI are a desire to stay away from intimacy and escape from private life (Seybold & Salomone, 1994), a low preference for leisure (due to experience of boredom during leisure activities: Douglas & Morris, 2006), some dimensions of obsessive–compulsive personality (namely obsessivity, orderliness, rigidity, and superego: Mudrack, 2004), materialism (striving for a high standard of living may cause one to work longer/harder: Burke, 2006b), and the work ethic, which contains elements of hard work, long hours, and pride in work and a job well done (Cherrington, 1980).

2.3. Major types of HWI

From the above discussion, the external/internal dimension clearly constitutes a major means for classifying predictors of HWI. Nevertheless, causal locus (whether the cause is external or internal to the person) is not the only means to that end. The psychological study of casual attributions (i.e., the explanations we give for our/other people’s behavior), which began with Heider’s (1958) basic distinction between internal and external causes, was extended by Weiner (1985). Specifically, he defined three dimensions of causal attributions: causal locus, controllability (whether the cause is under volitional control or not), and stability (whether the cause is constant or variable over time). Weiner (1995, 2000) also recognized the importance of attribution theory in organizational behavior. In his words, “the concepts, issues, and ideas of attribution theory lend themselves so well to phenomena ingrained in organizational settings” (Weiner, 1995). For example, attribution theory has been applied in regard to work performance (Corr & Gray, 1996), work exhaustion (Moore, 2000), and absence from work (Judge & Martocchio, 1995). Using Weiner’s (1985) attributional framework, we differentiate two major types of HWI, situational and dispositional, each with its own subtypes, as based on the predictors of such an investment.

2.3.1. Situational HWI

The first major type of HWI is situational, stemming from external (to the person) predictors. In the short term, external predictors, such as basic financial needs (food, accommodation, etc.), job demands, employer/supervisor demands, or organizational culture (e.g., the overtime culture in high-tech organizations and among hospitals physicians), are uncontrollable and stable. Accordingly, we can distinguish common subtypes of situational heavy work investors, such as the needy and the employer-directed. Note that even common full-time workers sometimes have to invest heavily in their work due to a temporary high workload (an external, uncontrollable and variable predictor). However, since such occasions are exceptional, we do not consider these workers situational heavy work investors.
2.3.2. Dispositional HWI

The second major type of HWI is dispositional, stemming from internal (to the person) predictors. We can also further distinguish common subtypes of dispositional HWI. For instance, workaholism as based on an addiction to work (an internal, uncontrollable, and stable predictor), and work devotion as an expression of a passion to work (an internal, controllable, and stable predictor). Accordingly, we can outline our entire definition of workaholism as a subtype of heavy work investment that does not stem from external predictors or from a passion for work, but from an addiction to work. Note, however, that not all possible subtypes of dispositional HWI necessarily revolve around work: they may also stem from non-work avoidance. Examples may be fear of intimacy (an internal, uncontrollable, and stable predictor), and a low preference for leisure (an internal, controllable, and stable predictor).

Table 1 presents a classification of possible predictors of HWI by the dimensions of causal locus, controllability, and stability. Table 2 specifies the two major types of heavy work investors and their common subtypes.

Note however that one’s self-attribution (i.e., one’s own grasp as to the causes) of one’s HWI may be different from our attribution. A person whom we consider a workaholic may very well, based on the rationale of the self-serving bias, attribute his/her HWI to job demands or employer/supervisor demands.

2.4. Outcomes of HWI

The existing literature deals mainly with outcomes of long work hours and workaholism. Employers tend to overvalue the tendency to work long hours, particularly when objective measures of productivity are not readily available (Rebitzer & Taylor, 1995). However, work hours are not necessarily related positively to productivity (Baird & Beccia, 1980; Ben-David, 2003; Hanna, Taylor, & Sullivan, 2005). For example, Hanna et al. (2005) reported a decrease in construction labor productivity as the number of hours worked beyond the typical 40 h scheduled per week increased.

Moreover, there is growing evidence of the negative effects of long work hours and overtime work on health and health-related behavior (Dembe, Erickson, Delbos, & Banks, 2005; Iwasaki, Takahashi, & Nakata, 2006; Raediker, Janssen, Schomann, & Nachreiner, 2006; Sparks, Cooper, Fried, & Shirom, 1997; van der Hulst, 2003). For example, Raediker et al. (2006) found a relation between the number of working hours per week and the frequencies of health complaints. This applies to both musculo-skeletal disorders and to psycho-vegetative complaints. There is a continuing discussion on the negative effects of long work hours concerning medical students and residents. Based on studies indicating the danger of working long hours for both residents’ and patients’ safety (e.g., Baldwin, Daugherty, Tsai, & Scotti, 2003), since July 2003 most residents in the USA have been limited to 80 working hours per week (which is still twice the hours of a “regular” workweek). The data as regards the utility of limiting residents’ work hours are conflicting (e.g., Goitein, Shanafelt, Wipf, Slator, & Back, 2005; Goldman & Fiebach, 2007; Howard, Silber, & Jobes, 2004; Lockley, Cronin, Evans, Cade, et al., 2004).

Table 1
Classification of possible predictors of HWI by the dimensions of causal locus, controllability, and stability.

<table>
<thead>
<tr>
<th>External, uncontrollable, and variable:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Temporary workload</td>
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<tr>
<td>External, in the short term — uncontrollable and stable*:</td>
</tr>
<tr>
<td>1. Basic financial needs</td>
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<tr>
<td>2. Job demands (e.g., holding a professional or managerial position)</td>
</tr>
<tr>
<td>3. Employer/supervisor demands</td>
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<tr>
<td>4. Organizational culture</td>
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<td>5. Type of industry</td>
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<tr>
<td>External, uncontrollable, and stable:</td>
</tr>
<tr>
<td>1. Labor-market conditions (e.g., labor unions policy)</td>
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<tr>
<td>2. Cross-cultural differences</td>
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<td></td>
</tr>
<tr>
<td>Internal, uncontrollable, and stable:</td>
</tr>
<tr>
<td>1. Addiction to work</td>
</tr>
<tr>
<td>2. Fear of intimacy</td>
</tr>
<tr>
<td>3. Obsessive compulsive personality</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Internal, controllable, and stable:</td>
</tr>
<tr>
<td>1. Passion for work</td>
</tr>
<tr>
<td>2. Low preference for leisure</td>
</tr>
<tr>
<td>3. Striving for a high standard of living</td>
</tr>
<tr>
<td>4. Work values and attitudes (e.g., the work ethic, work centrality, and non-financial employment commitment)</td>
</tr>
</tbody>
</table>

Note:
* A dichotomy of some predictors as controllable vs. uncontrollable or stable vs. variable is simplistic. For example, in the short term, a worker is not likely to change the characteristics/demands of a given job or organization. However, in the long term, different jobs/workplaces may be available.

Concerning workaholism, it has been found positively correlated with stress and health complaints (e.g., Andreassen, Ursin, & Eriksen, 2007; Spence & Robbins, 1992), burnout (Burke & Matthiesen, 2004; Schaufeli et al., 2008), work–family conflict (Bakker et al., 2009), and work–life conflict (e.g., Aziz & Zickar, 2006; Bonebright, Clay, & Ankenmann, 2000); and negatively correlated with life satisfaction (e.g., Aziz & Zickar, 2006; Bonebright et al., 2000). For example, Bakker et al. (2009) report that workaholics were more inclined to think and worry about their work when at home, gave priority to their work, and neglected their domestic obligations and the relationship with their partners. In consequence, their partners were less supported, resulting in reduced relationship satisfaction.

However, a simple classification of HWI outcomes as being either positive or negative is insufficient. Workaholics were found to have lower levels of satisfaction with aspects of work (e.g., job, career), non-work (e.g., family, friends), and psychological well-being than work enthusiasts, across countries and occupations (e.g., Bonebright et al., 2000; Burke & Fiksenbaum, 2009a, 2009b). According to our HWI model, a possible explanation for the above pattern is that workaholics, in contrast to work-devoted investors, are not in control of their HWI. The adverse effects of individuals’ lack of control over long work hours on their well being are documented (e.g., Golden & Wiens-Tuers, 2005; Sparks et al., 1997; van der Hulst & Geurts, 2001). Arguably, the needy heavy work investors, who resemble workaholics in the lack of control of their HWI, will also exhibit lower levels of satisfaction and well-being than work-devoted investors. We consider the employer-directed heavy work investors (e.g., high-tech workers, hospital physicians) a unique case. On the one hand they resemble workaholics in the lack of control of their work investment. On the other hand high-status employees reap greater material as well as social rewards from their jobs than low-status employees (Hodson, 2004), which may compensate for the lack of control of their HWI. In sum, different subtypes of dispositional and situational heavy work investors may experience different personal work/non-work outcomes. Accordingly, we expect:

**Proposition 1a.** Negative personal work/non-work outcomes (e.g., burnout and stress) will be highest in workaholics and needy heavy work investors, lowest in work-devoted investors, and in between among employer-directed heavy work investors.

**Proposition 1b.** Positive personal work/non-work outcomes (e.g., work and life satisfaction) will be highest in work-devoted investors, lowest in workaholics and needy heavy work investors, and in between among employer-directed heavy work investors.

Still, not all HWI outcomes are immediate, and their nature may change over time. For instance, Ng, Sorensen, and Feldman (2007) expect workaholism to have more negative consequences in the long term than in the short term.

One’s family and workplace may also be affected by one’s HWI, and the nature of its outcomes is not necessarily uniform. For example, one’s HWI may interfere with family, which on the other hand may enjoy a high material standard of living. One may exhibit organizational citizenship behavior, but also harm the morale of one’s work group, by setting unrealistic standards of face time at the office. In sum:

**Proposition 2.** Three major issues need to be addressed as to HWI outcomes: (1) their nature (positive, mixed, or negative); (2) their term (short, intermediate, or long); and (3) the affected parties (the individual, his/her family, and the workplace). The nature of HWI outcomes may change both within and across the affected parties.

However, extreme and continuous HWI may have grave repercussions, regardless of its causes. Karoshi is a Japanese word meaning death from overwork. Most of its victims typically work 3000–3500 h a year, commonly putting in 14-hour days and seven-day weeks; they die of subarachnoid hemorrhage or myocardial infarction (Hebrig & Palumbo, 1994).

2.5. Possible moderators in the HWI–outcomes relationship

It is important to outline possible moderators in the relationship between HWI and its outcomes. The most addressed HWI outcome in the literature is health. In their comprehensive review, Sparks et al. (1997) describe a variety of moderators in the long work hours–health relationship, such as job type (e.g., the adverse effect of long work hours may be greater for jobs demanding excessive physical activity or repetitive work), the work environment (ill-effects of the work environment due to poor ergonomic design of the workstation, high level of noise, inadequate lighting, etc., may be exacerbated by working long hours), and age (employees aged over 40 may see themselves as more likely targets for redundancy, so they work longer hours under high stress). In a relatively recent survey of 372 train drivers, Tucker and Rutherford (2005) examined how the relation of long work hours to self-reported health is moderated by schedule autonomy and the degree of social support experienced. Respondents who lacked both schedule

Table 2
The two major types of heavy work investors and their common subtypes.

<table>
<thead>
<tr>
<th>Situational heavy work investors</th>
<th>Dispositional heavy work investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The needy — Those who have to support a large family, pay debts, etc.</td>
<td>1. Workaholics — Those who are addicted to their work.</td>
</tr>
<tr>
<td>2. The employer-directed — High-tech workers, hospital physicians, etc.</td>
<td>2. The work-devoted — Those with a high passion to their work.</td>
</tr>
<tr>
<td>3. The intimacy-avoiders — Those who see work as an escape from intimacy/close relationships.</td>
<td>3. The intimacy-avoiders — Those who see work as an escape from intimacy/close relationships.</td>
</tr>
<tr>
<td>4. The leisure-low-interested — Those who see work as an alternative to tedious leisure time.</td>
<td>4. The leisure-low-interested — Those who see work as an alternative to tedious leisure time.</td>
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</table>

autonomy and social support showed a positive relation between the number of hours worked per week and frequency of physical health symptoms. Conversely, a negative relation was observed among respondents reporting low schedule autonomy together with high social support.

Possible moderators in the relationship between HWI and outcomes other than health are also evinced. For example, Peiperl and Jones (2001) proposed a distinction among those who put in excessive time and effort in their work by introducing a second dimension, namely equity of perceived work rewards. They found that those who felt that the rewards accruing from their work were inequitably distributed – favoring the organization that employed them – were significantly less satisfied with their level of compensation and their careers than those who felt that the rewards were at least equitably distributed between themselves and the organization.

**Proposition 3.** Possible moderators in the relationship between HWI and its outcomes are, among others, job type and the work environment (in regard to health), and equity of perceived work rewards (in regard to aspects of work satisfaction).

### 3. Dispositional and situational heavy work investors

Based on the proposed HWI model, we compare dispositional investors with situational investors regarding their HWI over time, and their affective reactions to work-related events.

#### 3.1. HWI over time

Different organizations attract, select, and retain different kinds of people (Schneider, 1987; Schneider, Goldstein, & Smith, 1995). Moreover, according to the dynamic interactionism approach (Ickes, Snyder, & Garcia, 1997), people actively incline to some situations and avoid others, so that the choice of situations reflects personal characteristics, such as attitudes, traits, and self-concepts. Hence, dispositional investors are more likely to be attracted to demanding jobs, to be selected by organizations for such jobs, and to keep these jobs even when less demanding jobs are available, due to their personal characteristics. Moreover, they may maintain their HWI even in the absence of financial justification to work at all. For example, Hamermesh and Slemrod (2005) found evidence that high-income, highly educated people exhibited workaholism in that they were more likely to postpone earlier plans for retirement. In another study, Arvey, Harpaz, and Liao (2004) found that individuals who won large amounts of money in the lottery were less likely to quit work if they had high degree of work centrality.

On the other hand, situational investors are likely to reduce their HWI when they have the opportunity to do so. For instance, needy heavy work investors may work less if their financial pressures ease. Similarly, employer-directed heavy work investors may quit their current jobs during an economic upswing in favor of other, less demanding, occupational alternatives. In sum, whereas situational investors are likely to adjust their investment in work to the changing circumstances, dispositional investors are likely to disregard options of work reduction. Hence:

**Proposition 4.** Dispositional investors are more likely to exhibit a steady HWI over time than situational investors.

A major methodological implication of the above proposition is that a strict classification of an individual as a dispositional or a situational investor calls for a longitudinal research design (i.e., the examination of the work investment pattern over time). There is also a second, practical, implication. Along with the view of supportive (i.e., family-friendly) organizations, a one-size-fits-all simplistic notion of ‘work/life balance’ has emerged (Friedman & Lobel, 2003). Dispositional investors, or at least workaholics, are less likely to approve of counseling/programs based on this notion. For them, the so-called ‘objective’ imbalance may be in fact a subjective balance. Indeed, using the three-scale Workaholism Battery (Spence & Robbins, 1992), Russo and Waters (2006) found that workaholics, in contrast to their enthusiastic workaholic (those who score high in work involvement, enjoyment, and drive) counterparts, did not experience declining work-family conflict with increased access to flexible scheduling.

#### 3.2. Affective reactions to work-related events

Affect includes two independent dimensions: the degree of pleasantness and the degree of activation. The first dimension summarizes how well one does in terms of a positive–negative hedonic valence. Degree of activation refers to a sense of mobilization or energy and summarizes one’s physiological state in terms of activation or deactivation (Feldman Barrett & Russell, 1998).

Affective processes create and sustain work motivation. Strong affective feelings are present whenever we confront work issues that matter to us and our performance at work (Barsade & Gibson, 2007). For workaholics, work is integral to and generally indistinguishable from other areas of their lives (Machlowitz, 1980). Furthermore, for workaholics, the career-self (i.e., one’s corporate membership) becomes the predominant part of self-identity and the primary object of self-validation attempts (Ishiyama & Kitayama, 1994). Accordingly, we expect dispositional investors to experience high degree of affective activation in response to work-related events, regardless of pleasantness. In detail, they are likely to experience higher degree of both positive affect (e.g., pleasure derived from a successful completion of a task, or a promotion) and negative affect (e.g., frustration due to a setback on an important project, or forced retirement) as a reaction to work-related events, than situational investors are. Indeed, those who score high on non-financial employment commitment (i.e., non-monetary motivation for working) suffer more when unemployed.
than do those who score low (Stafford, Jackson, & Banks, 1980; Warr, 1978). Retired or unemployed workaholics feel a loss of self-identity, which can cause grief, depression, and low self-esteem (Ishiyama & Kitayama, 1994). Therefore:

**Proposition 5.** Affective reactions, whether positive (e.g., pleasure) or negative (e.g., frustration), to work-related events will be stronger in dispositional investors than in situational investors.

This may imply that performance appraisal is inherently more stressful for dispositional investors. Moreover, when unemployed or retired, they may need more psychological counseling than others. On the other hand, due to their supposed high non-financial employment commitment, dispositional investors are likely to be suitable candidates for participation in occupational training/reemployment programs. According to Warr and Lovatt (1977), respondents who scored high on non-financial employment commitment were significantly more likely to find new employment six months after closure of their plant than those who scored low.

### 4. Discussion

Heavy work investment is a significant phenomenon in contemporary life, owing to its possible important outcomes for individuals, their families, and their workplaces. In this paper, we have outlined a preliminary model of HWI, which addresses several important issues and features hardly ever realized, or neglected previously in studies of workaholism. In the following sections, we discuss the major contributions of our paper to the present literature, the measurement of HWI, and future research directions.

#### 4.1. Contributions

The paper makes several important contributions: First, it introduces a non-biased, behavior-based definition of HWI, which addresses both time and effort invested in work, does not overlap possible predictors or outcomes, and conceptualizes workaholism as only one of HWI subtypes. Every workaholic is a heavy work investor; but not every heavy work investor, or even dispositional investor, is a workaholic. One can be regarded as such only if one invests heavily in one’s work not because of external demands, or a passion to work, but because of an addiction to work. Second, this paper develops an innovative model of HWI, which constitutes a conceptual integration and extension of the present literature concerning workaholism and long work hours. Third, it presents a wide range of HWI predictors (i.e., psychological, sociological, economic, and cultural), and treats these predictors in the framework of well-established theories, such as Person–Situation Interaction Theory and Attribution Theory. Fourth, this paper differentiates two major types of HWI, each with its own subtypes, based on the predictors of such an investment. For example, financial-needs-based and employer-directed are situational subtypes, whereas workaholism and work-devotion are dispositional subtypes. Fifth, we stress that the nature of HWI outcomes is not necessarily uniform — it may change both within and across the affected parties (i.e., the individual, his/her family, and workplace). Finally, we compare dispositional investors and situational investors regarding their HWI over time, and their affective reactions to work-related events.

#### 4.2. HWI measurement

We argue that individuals must be high in both the time and the effort dimensions to be classified as heavy work investors. However, several important questions remain unanswered:

a. Should hours in a second job, work done from home, commuting time, and business travel time be considered in the calculation of time worked?

As we define HWI in the sense of paid employment, we maintain that hours in a second job should certainly be considered in the calculation of time worked. Work done from home, paid or unpaid, should also be taken into consideration if the employer regards it as part of the worker’s formal duties (e.g., a teacher grading students’ exams). Commuting time and business travel time are inherently intricate to classify as work/non-work.

b. What is the appropriate manner of measuring work hours (daily, weekly, monthly, or annually)?

Daily measurement is not the preferred option due to possible considerable day-to-day variation in one’s work hours. Monthly or annual work hours may vary less, but on the other hand are more complex to self-calculate/recall. So these two manners of measurement are more relevant for employer-dependent reports than for self-reports. Weekly work hours seem to vary less than daily work hours, as well as to be easier to self-report than monthly or annual work hours. In this respect, the ‘workweek grid’ technique allows a more accurate estimation than the standard workweek question typically used in employment surveys (Robinson, Chenu, & Alvarez, 2002).

c. How high do individuals have to be on time worked?

Brett and Stroh (2003) define extreme work hours as 61 or more hours per week. Many researchers seem to use a 48-weekly-hours cutoff point, in line with the 1993 European Directive on working time (White & Beswick, 2003). Note however that any cutoff point is somewhat arbitrary and that labor standards vary across countries.

d. Is there a need to use different cutoff points concerning work hours for different sexes, jobs, or industries?

Dex, Clark, and Taylor (1995) argue that long hours should be considered differently for men (over 60 h per week) and women (over 40 h per week). Since certain jobs (e.g., managerial) and industries (e.g., high-tech) are more demanding than others,
we agree with Ng et al. (2007) that there is a rationale to use different cutoff points in different jobs/industries. However, implementing it could be quite cumbersome.

e. How should we measure effort at work?

The measurement of effort seems quite complex. One option is to determine a level of effort as high based on job requirements. For example, a job requires more effort when (1) employers establish high quantity or quality standards (Gorman & Knec, 2007); (2) it involves strenuous physical activities (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) or complex cognitive tasks (Dwyer & Ganster, 1991). However, required effort is not necessarily equal to actual effort. Another option is to rely on absolute or relative (compared, e.g., with one’s work colleagues) self/observer-reports.

f. Should we rely on self-reports, observer-reports concerning the focal person (e.g., from one’s family, friends, and co-workers), or objective measures?

Objective measures of work hours, all the more so work effort, are not always available. However, there is a bias in self-reports (e.g., social desirability), as well as in observer-report (e.g., a co-worker may underestimate the worker’s time and effort investment; the worker’s spouse cannot see the worker at the workplace). Hence, if possible, taking a multi-source approach (e.g., using both self-reports and acquaintance reports: Aziz & Zickar, 2006) to assess interjudge agreement is strongly recommended.

4.3. Future research directions

Three research directions are suggested: study of situational investors, research across time and cultures, and exploration of inter-generational similarity/difference concerning HWI.

4.3.1. Study of situational investors

In total, an estimated 22% of the global workforce, or 614.2 million workers, work more than 48 h per week (Lee, McCann, & Messenger, 2007). However, the existing literature deals mainly with two subtypes of dispositional investors: workaholics and (to a certain extent) work-devoted investors. Study of situational investors, regardless of the specific terminology used to name them (e.g., reluctant hard workers: Buelens & Poelmans, 2004; unhappy workaholics: Friedman & Lobel, 2003; the over-employed: Golden, 2006), is scarce. It seems that even researchers in this field are prone to make the fundamental attribution error (i.e., overestimating the influence of internal factors and underestimating the influence of external factors concerning the behavior of others). In light of indications as to the considerable portion of full-time workers who want to work fewer hours (Reynolds, 2004), and of low earners, long work hours employees (Greenstein, 2000), more research on this topic is clearly needed.

4.3.2. Research across time and cultures

Longitudinal research is a necessary condition for establishing causality with regard to both predictors and outcomes of HWI, as well as for a strict classification of an individual as a dispositional or a situational investor. Furthermore, some suggest that a situational investor can become a dispositional one in the course of time. For example, a rise in work hours demanded by an employer above those preferred by the individual creates a feeling of time scarcity in the household. This in turn will lead a household to change its preferences from self-produced goods and services to those that are market-produced. The household may also shift from time-using goods and services toward the more time-saving type. Both shifts require more income. In addition, households are likely to shift preferences from time-intensive to income-intensive leisure activities. Together, all these effects ratchet upward individuals’ targeted consumption levels and gradually dissipate the initial desire for shorter work hours (Rothschild, 1982). In sum, a dynamic process is triggered whereby an individual may start out involuntarily working long hours and later begin to do so voluntarily (Golden, 2006). It is also possible that due to socialization processes, organizational values of long work hours and hard work may be truly internalized and behaviorally expressed by at first a situational investor.

With the new millennium witnessing an increase in economic activity on a global scale, individuals are increasingly encountering people of different nations across real and virtual borders (Aycan & Kanungo, 2001). Hence an understanding of cross-cultural issues is becoming more critical than ever. However, except for one paper (Snir & Harpaz, 2009) virtually no studies have been published on possible cross-cultural differences concerning HWI. More research is needed on such differences, as well as on similarities, in the scope, predictors, types, and outcomes of HWI.

4.3.3. Exploration of inter-generational similarity/difference

If individuals see that other members in the family (e.g., parents) work excessively, they may develop a tendency to treat their own work in the same manner, because they are influenced by those important role models (Machlowitz, 1980). On the other hand, one may also claim that adult children of workaholics will do their best not to replicate their parents’ work behavior, since they view them as negative role models in this respect. Anyway, research of inter-generational similarity/difference concerning workaholism or HWI in general is scarce. Statistically significant relationships were found between college students’ perceived parental workaholism and their own workaholism (Chamberlin & Zhang, 2009). Compared with adult children of non-workaholics, adult children of workaholics showed a greater tendency to be workaholics themselves (Navarette, 1998; Seary, 2000).

According to Inglehart (1997), large inter-generational values change will be found in societies that have experienced a long period of rising economic and physical security. Young people will be much likelier to prioritize well-being values over survival values than old people. This reflects the fact that the young have experienced greater security during their formative years than...
the old. Conversely, the difference between the values of young and old will be small or nonexistent in societies that have experienced relatively little increase in per capita income (Inglehart, 1997). Assuming that values affect behavior, not only psychological variables (such as parental influence) but also macro-level economic variables should be taken into consideration in the assessment of inter-generational similarity/difference in respect of HWI.

References


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