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Understanding workaholism and work engagement: the role of mood and stop rules

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Abstract

Purpose – This study aims at disentangling the different underlying motivations that drive workaholic and engaged employees to work excessively hard. The Mood as Input (MAI) model serves as an explanatory framework. The MAI model assumes that, dependent on the stop rule used, a different mood state may lead to persistence. When individuals evaluate whether they still enjoy an activity (an enjoyment stop rule), a positive mood would signal enjoyment, resulting in persistence. On the other hand, when individuals evaluate whether they have done enough (an enough stop rule), a negative mood would signal discontentment, which would also result in persistence.

Design/methodology/approach – A survey study ($n = 173$) was conducted to test the applicability of the MAI model to the work context.

Findings – It was hypothesized and found that workaholism is positively related to negative mood and using an enough stop rule to determine when to stop working. In addition, this study showed that work engagement is related to positive mood. The findings did not support the expectation that work engagement is related to using an enjoyment stop rule to determine when to stop working. In conclusion, the results indicate that both mood and stop rules may be useful for explaining the difference in motivation to work persistently between workaholism and work engagement.

Originality/value – The paper advances the understanding of reasons to work hard which are related to work engagement and workaholism. Knowledge about the reasons why employees work hard can help professionals to prevent workaholism, thereby stimulating healthy and enduring careers.

Keywords Workaholism, Employee behaviour, Employee attitudes, Work psychology

Paper type Research paper

Introduction

Nowadays, many employees work long hours (Drago, 2000). It seems that the pressures of the global economy and the concomitant increased competition prompt organizations to reward employees who are willing to work hard for a career (Blair-Loy and Jacobs, 2003; Schabracq and Cooper, 2000). In addition, high-speed data connections make it possible for employees to work at any time, in any place. These recent developments may stimulate employees to work long hours.

In the early 1970s, Oates (1971) suggested that working beyond the limits of sufficiency may resemble an addiction to work, a phenomenon which he coined “workaholism”. That is to say, particular features of work addiction are similar to other



addictions, for instance displaying excessive behaviours and disregarding other significant domains in life (Porter, 1996). Ever since Oates introduced the term workaholism, several scholars have undertaken the quest for a better understanding of this career side effect (e.g. Mudrack, 2004; Ng *et al.*, 2007). This has led some to consider workaholism as a merely harmful occurrence (Oates, 1971; Porter, 1996; Taris *et al.*, 2005), whereas others regard it as mainly positive (Peiperl and Jones, 2001). Still others consider workaholism as both positive and negative (Ng *et al.*, 2007; Spence and Robbins, 1992). Based on a thorough review of the literature, Scott *et al.* (1997) distinguish three constituting features of workaholism. First, workaholics put a lot of hours in their work when they get the opportunity to do so. Second, workaholics are unwilling to disengage from work and they persistently think about work when they are not working. Third, workaholics work beyond what is reasonably expected from them to meet organizational or economic requirements. From that, we derive that workaholism consists of a behavioural dimension (investing an excessive amount of time and energy into work, much more than is reasonably expected) and a cognitive dimension (having an irresistible drive to be involved in work related matters) (Schaufeli *et al.*, 2008a). The behavioural feature is necessary (Snir and Harpaz, 2006), but not sufficient to define workaholism. It is the combination of the behavioural and cognitive elements that is held to be crucial for work addiction (Schaufeli *et al.*, 2009c).

However, rather than out of an inner compulsion, employees may also work unusually hard for other reasons. Excessive working may also reflect enjoyment and vitality, which is often labelled as work enthusiasm (Spence and Robbins, 1992) or work engagement (Maslach *et al.*, 2001). Work engagement is considered a persistent affective-cognitive state of well-being that is rather pervasive (Schaufeli *et al.*, 2009a) and not related to any specific objects or events (Schaufeli *et al.*, 2002). More specifically, “vigour is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence, even in the face of difficulties. Dedication refers to being strongly involved in one’s work, and experience a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption is characterized by being fully concentrated and happily engrossed in one’s work, whereby the time passes quickly and one has difficulties detaching oneself from work” (Schaufeli *et al.*, 2002, p. 74). Of these three dimensions, vigour and dedication are regarded as the core features of work engagement (Schaufeli and Bakker, 2004).

Up to date, only a few studies have examined the differences between the career outcomes workaholism and work engagement. Nevertheless, the existing studies provide evidence for the discriminant validity between the two concepts (e.g. Schaufeli *et al.*, 2006b; Schaufeli *et al.*, 2009b). For instance, Schaufeli *et al.* (2008b) found in a study among Dutch managers that, in contrast to work engagement, workaholism is related to adverse outcomes, such as negative reactions of others, impaired social functioning and poor health. The study of Shimazu and Schaufeli (2009) confirmed the finding that workaholism is related to ill-being, whereas work engagement is related to well-being. While workaholics and engaged employees may not be differentiated by long work hours (Schaufeli *et al.*, 2008a; Smulders, 2006), we assume that differences in motivation are involved. Therefore, the current study aims at disentangling the different underlying motivation that drives workaholic and engaged employees to work excessively hard over the course of a career.

The Mood as Input approach

The Mood as Input (MAI) model (Martin and Davies, 1998) might provide an explanation for the different motivational mechanisms underlying workaholism and work engagement. The MAI model assumes that people tend to interpret their mood states as relevant input for evaluating the progression towards their goals. However, how positive or negative affect will be interpreted, depends upon the goals that accompany those feelings (Martin and Stoner, 1996), or more specifically upon the “stop rules” people use (Martin *et al.*, 1993). Individuals may decide to stop with an activity because they do not enjoy the activity any longer, which is referred to as an enjoyment (“feel like continuing”) stop rule. Alternatively, individuals could also decide to stop with an activity because they believe that they have done enough, which is in the present study referred to as the enough (“as many as can”) stop rule. The MAI hypothesis (Martin, 2001) posits that if an *enough* stop rule is used, individuals who are in a positive mood are likely to interpret their positive feelings as a signal that they have done enough. In other words, they achieved their goal, which leads individuals to discontinue an activity. Correspondingly, those in a negative mood may interpret their feelings as a signal that they are not yet satisfied with the result, thus fostering persistence. If an enjoyment stop rule is applied, individuals in a negative mood are expected to interpret their negative feelings as a signal that they do not enjoy the activity any longer, and consequently may quit the activity. However, those in a cheerful mood using the same stop rule may likewise interpret their positive feelings as a signal that they are still enjoying the activity, and consequently persist with the activity.

In the field of clinical psychology the MAI model has successfully been applied to explain compulsive behaviours such as rumination (Watkins and Mason, 2002) and worrying (Davey *et al.*, 2005). In addition, in an experiment on obsessive-compulsive (OC) checking, MacDonald and Davey (2005) manipulated mood (negative vs positive) and stop rules (enough vs enjoyment) of healthy volunteers. As predicted by the MAI model, the most significant persistence on a checking task was found for the combination of negative mood and an enough stop rule, which is most similar to the characteristics of the compulsive checking in obsessive compulsive disorder (OCD). Outside the field clinical psychology, studies on the MAI model are still scarce (cf. George and Zhou, 2002 for an exception). In fact, the current study is the first to apply the MAI model to compulsive career behaviour (i.e. workaholism).

The MAI model and the motivation to work persistently

The aim of the current study is to use the MAI model to help distinguish between work engagement and workaholism. More specifically, we seek to answer the question: Does the interaction between mood and stop rules predict workaholism and work engagement? After all, the MAI model is a general model that attempts to explain all sorts of perseverance, and therefore can potentially be applied to other persisting behaviours such as workaholism. Available evidence on workaholism and work engagement suggests that the MAI model may be useful to explain differences in work persistence. For instance, Burke and Matthiesen (2004) found that workaholic employees (“work addicts”) showed less positive and more negative affect than work engaged employees (“work enthusiasts”). In addition, it has been observed that positive affect is positively associated with work engagement (Schaufeli and Van Rhenen,

2006), whereas negative affect is positively related to workaholism (Clark *et al.*, 2010). Finally, Porter (1996) suggests that workaholics work excessively in order to avoid the negative emotions they experience when not working, suggesting that negative emotions might precede excessive work behaviour. Based on these considerations, we predict that negative affect is positively related to workaholism (*H1*). Additionally, it is hypothesized that positive affect is positively related to work engagement (*H2*).

In some occupations, such as in managerial, professional, and entrepreneurial jobs, work keeps piling up, so that the person's job is never done (Blair-Loy and Jacobs, 2003). The combination of a demanding career and the opportunity to work anytime, anywhere and anyplace underline the importance of self-control. That is, instead of relying on external agents, the employee him- or herself has to decide when to stop working. Since workaholics by definition work far beyond their job descriptions, it is obviously difficult for them to reach a point where they feel they may have done enough. Workaholics are characterized "by an unwillingness to disengage from work" (McMillan and O'Driscoll, 2006, *p.* 89) and by a strong need for achievement (Ng *et al.*, 2007). They may therefore not be able to set boundaries because they never feel that they put enough effort into their work, due to an underlying enough stop rule. Work engaged employees, on the other hand, work long hours because the work gives them satisfaction and provides a sense of meaning (Schaufeli *et al.*, 2002), potentially pointing to the hedonic enjoyment stop rule those employees use. Work is fun for work engaged employees, but when it is no longer fun, they quit working. Therefore, it is expected that the enough stop rule is positively related to workaholism (*H3*) and that the enjoyment stop rule is positively related to work engagement (*H4*).

Finally, in line with the basic premises of the MAI model it can be speculated that the interpretation of negative and positive mood by workaholic and engaged employees, based on their stop rule, may similarly foster their persistence in working. For that reason, we examined whether the combination of an enough stop rule with a negative mood is particularly characteristic of work addiction. That is, does negative mood moderate associations between the Enough rule and workaholism? We expected that when using an Enough rule to decide when to stop working, employees who experience high levels of negative affect tend to have higher levels of workaholism than those who display low levels of negative affect (*H5*). We also examined whether a combination of an enjoyment stop rule with a positive mood is typical for work engagement. That is, does positive mood moderate associations between the Enjoyment rule and work engagement? We expected that when using an Enjoyment rule to decide when to stop working, employees who experience high levels of positive affect tend to have higher levels of work engagement than those who display low levels of positive affect (*H6*).

Methods

Participants and procedure

A convenience sample of 340 employees was approached to take part in the study. Ultimately, 173 participants consented, yielding a response rate of 51 per cent. The sample comprised 83 men and 90 women with a mean age of 38.4 years ($SD = 11.8$). According to their contract, employees worked on average 35.0 ($SD = 6.1$, range = 16.0 – 60.0) hours a week. Their actual working hours were on average 38.9 ($SD = 9.0$, range = 16.2 – 68.0). A substantial part of the sample (27 per cent)

worked in health care, a comparable part (26 per cent) worked for public agencies, 9 per cent worked in business services and 6 per cent worked in industry, whereas the remaining 32 per cent were employed in various types of occupations. Almost one quarter (23 per cent) of the sample reported to be involved in a management role. Overall, the sample was highly educated with 65 per cent holding at least a bachelors degree. Participants were asked to fill out a number of questionnaires. In addition, they were asked to read two short scenarios of a hypothetical character who decided to quit working for different reasons and answer a series of questions about each scenario.

Measures and materials

Workaholism was measured with two scales of the Dutch Work Addiction Scale (Schaufeli *et al.*, 2008a). The first scale was Working Excessively (WE; seven items, an example item is “I overly commit myself by biting off more than I can chew”). The alternate scale is Working Compulsively (WC; nine items, an example item is “I feel obliged to work hard, even when it’s not enjoyable”). The internal consistencies of both scales are 0.70 and 0.84, respectively. Participants responded to each item on a four-point scale (1 = “never”, 4 = “always”).

Work engagement was measured with the Utrecht Work Engagement Scale (UWES; Schaufeli *et al.*, 2006a). Two scales of the UWES were used to measure the core dimensions of work engagement; Vigor (three items, $\alpha = 0.82$, an example item is “At my work, I feel bursting with energy”) and Dedication (three items, $\alpha = 0.86$, an example item is “I am proud of the work that I do”). The items of the engagement scales were scored using a seven-point response format (0 = “never”, 6 = “everyday”).

Mood states were measured with the Dutch version (Peeters *et al.*, 1996) of the Positive and Negative Affect Scale (PANAS; Watson *et al.*, 1988), a 20-item self-report measure of mood. Participants indicated how they felt “right now” on a five point scale. In the current study, Cronbach’s alpha for Positive Affect (PA, ten items, e.g. “active”, “enthusiastic”, “inspired”) was 0.86[1] and for Negative Affect (NA, ten items, e.g. “nervous”, “irritable”, “distressed”) 0.88.

As our main objective was to explore the use of the Enough and Enjoyment stop rules in the work context and since no validated questionnaire is yet available to assess stop rules in the work situation, stop rule scenarios (i.e. brief descriptions of a hypothetical person using a stop rule in deciding when to stop working) were used to explore the Enough and Enjoyment stop rules as applied to work situations. The Enough scenario was as follows: “Albert is doing his job. As long as he can do more, he continues working. Only when he is confident that he has done as much as he can, he decides to stop working”. The Enjoyment scenario was as follows: “Bert is doing his job. As long as he enjoys his activities, he continues working. Only when he feels that he no longer enjoys what he is doing, he decides to stop working”. The names in the scenarios were adapted according to the participants’ gender. In order to measure the degree to which the participants used both stop rules in their workplace, and to examine the consistency of the stop rule use across time, each scenario was followed by the same three questions:

- (1) “To what extent do you identify with < name > in general?”;
- (2) “To what extent do you identify with < name > the last few work days?”; and
- (3) “To what extent do you identify with < name > at the present moment?”

These three questions were all scored on a ten-point scale (1 = “not at all”, 10 = “completely”). Cronbach’s alpha for the Enough scenario scale was 0.92 and for the Enjoyment scenario scale 0.91.

Control variables

Gender (0 = male, 1 = female) and age were used as control variables. Furthermore, considering that autonomy in working hours is a prerequisite for using stop rules, a measure of autonomy was used as a control variable, assessed with one item (i.e. “To what extent do you have the autonomy to decide when to stop working on a workday?”) on a four-point Likert scale (1 = “not at all”, 4 = “to a large extent”).

Data analysis

Structural equation modeling with AMOS 16 (Arbuckle, 2007) was used to examine the relationship of negative affect, the Enjoyment stop rule, and their interaction with workaholism, and the relationship of positive affect, the Enjoyment stop rule and their interaction with work engagement, respectively. The latent construct of workaholism was measured using two indicators (working compulsively and working excessively). The latent variable work engagement was also assessed by two indicator variables (vigour and dedication). The independent variables were centered to avoid multicollinearity between the main effect variable and its interaction. The interaction terms (negative mood by Enough stop rule, and positive mood by Enjoyment stop rule) were created by multiplying the centered means of the relevant predictors. We examined overall model fit using the chi-square goodness-of fit statistic, Goodness of Fit Index (GFI), Root Mean Squared Error of Approximation (RMSEA), Normed Fit Index (NFI) and Comparative Fit Index (CFI). RMSEA values less than 0.10 are considered acceptable, whereas values equal to or less than 0.05 indicate good model fit (Kline, 2005). GFI, NFI and CFI values greater than 0.90 indicate acceptable model fit, whereas values close to 0.95 indicate good model fit (Hu and Bentler, 1999; Kline, 2005).

Results

Table I provides means, standard deviations and correlations of the study variables. An inspection of the correlation matrix suggests that the relationships among variables are in the expected direction. Strong positive correlations are observed between the Enough stop rule and both components of workaholism. Significant, albeit weak, positive correlations are found between Negative Affect and Working Compulsively. In addition, there are strong correlations between Positive Affect and the two work engagement components, Vigor and Dedication. Remarkably, no significant correlations are found between the Enjoyment stop rule and the components of work engagement, whereas moderate correlations are observed between the Enough stop rule and the components of work engagement.

Structural equation analysis

The results of the structural equation analysis are presented in Table II and Figure 1. Model (M1) provides a reasonable fit to the data. After the non significant paths were removed from the model (M1°, see Figure 2), the fit of the model did not significantly deteriorate, $\Delta\chi^2(18) = 14.31$, ns.

Table I.
Means (M), standard deviations (SD), and zero-order correlations for variables ($n = 173$)

	M	SD	Min	Max	1	2	3	4	5	6	7	8
1. Working excessively	2.21	0.51	1.00	3.43	—							
2. Working compulsively	1.80	0.52	1.00	3.11	0.62***	—						
3. Vigour	4.11	1.08	1.33	6.00	0.14	-0.04	—					
4. Dedication	4.30	1.13	1.33	6.00	0.15	-0.07	0.74***	—				
5. Negative affect	1.37	0.52	1.00	4.80	0.14	0.30***	-0.22**	-0.11	—			
6. Positive affect	3.14	0.64	1.40	4.60	0.01	0.03	0.49***	0.40***	-0.10	—		
7. Enough stop rule	5.19	2.56	1	10	0.45***	0.41***	0.25**	0.19*	-0.02	0.22**	—	
8. Enjoyment stop rule	4.83	2.54	1	10	0.09	-0.05	0.09	0.10	0.04	0.01	0.09	—

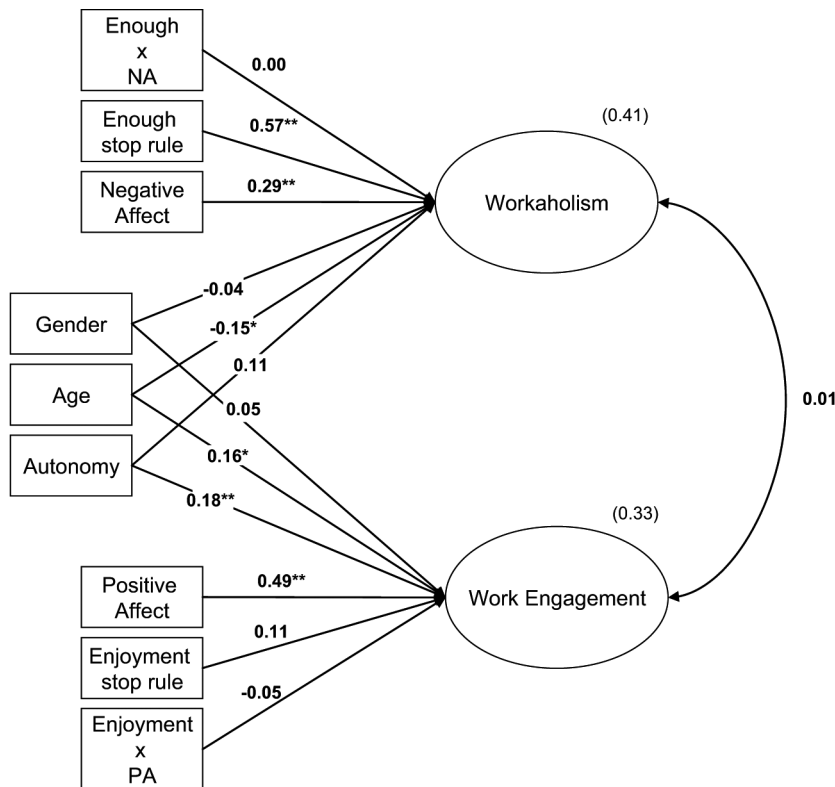
Notes: Means for workaholism reflect the four-points of the Likert scale; means for work engagement reflect the seven-points of the Likert scale; means for affect reflect the five-points of the Likert scale; stop rule scores ranged from 0 to 10; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

It was expected that Negative Affect would be positively related to workaholism (*H1*). As can be seen in Figure 2, the structural analysis reveals that Negative Affect contributes significantly to workaholism ($\beta = 0.29, p < 0.001$). In other words, *H1* is confirmed. It was also predicted that positive affect was positively related to work engagement (*H2*). The path analysis indicates that Positive Affect is positively related to work engagement ($\beta = 0.48, p < 0.001$). Hence, *H2* is confirmed. *H3* predicted that

Model	χ^2	df	p	GFI	RMSEA	NFI	CFI
M1	47.41	25	0.004	0.96	0.07	0.89	0.94
M1°	37.71	15	0.001	0.96	0.09	0.91	0.94

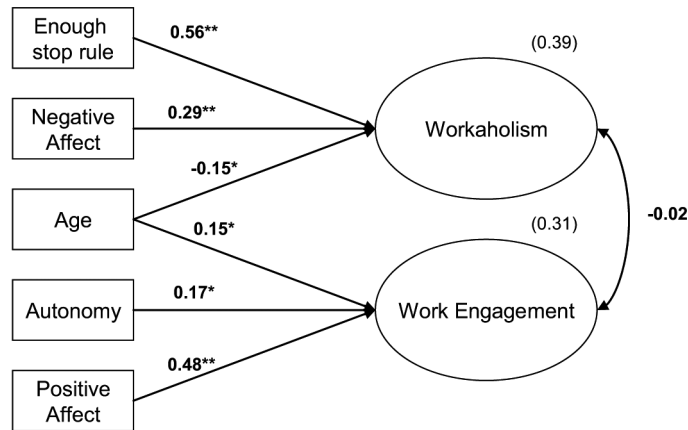
Notes: Model = type of model based on number and configuration of factors; M1 = Hypothesized path model; M1° = Trimmed path model

Table II.
Fit indices of the
Structural Path Model



Notes: Standardized path coefficients of Negative Affect, the Enough stop rule, and their interaction term (Enough x NA) on Workaholism, and of Positive Affect, the Enjoyment stop rule and their interaction term (Enjoyment x PA) on Work Engagement (controlling for gender, autonomy and age). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1.



Notes: Standardized path coefficients of Negative Affect and the Enough stop rule on Workaholism, and of Positive Affect on Work Engagement after elimination of the non-significant paths (controlling for autonomy and age). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 2.

the Enough stop rule was positively related to workaholism. The path analysis shows that the Enough stop rule is a strong significant predictor of workaholism ($\beta = 0.56$, $p < 0.001$). This finding supports *H3*. Furthermore, it was expected that the Enjoyment stop rule was positively related to work engagement (*H4*). The path analysis shows that the Enjoyment stop rule is not a significant predictor of work engagement. Therefore, *H4* is not supported.

Furthermore, we tested whether the interaction of Negative Affect and the Enough stop rule contributes to the prediction of workaholism (*H5*) and whether the interaction of Positive Affect and the Enjoyment stop rule predicts work engagement (*H6*). Results are presented in Figure 1. Contrary to expectations, the analyses did neither show a significant interaction term of Negative Affect by the Enough stop rule on workaholism nor a significant interaction term of Positive Affect by Enjoyment stop rule on work engagement. Hence, no evidence was found to support *H5*, or *H6*.

With respect to the control variables, it was found that age was positively related to work engagement ($\beta = 0.15$, $p < 0.05$), whereas it was negatively related to workaholism ($\beta = -0.15$, $p < 0.05$). Autonomy was positively related to work engagement ($\beta = 0.19$, $p < 0.05$).

Discussion

The main purpose of the present study was to explore the applicability of the Mood as Input (MAI) model (Martin *et al.*, 1993) to work behaviour. So far, very few studies applied the MAI model to other domains than the clinical field. We evaluated the usefulness of the model for explaining the difference in underlying motivation to work hard between workaholic and engaged employees. Our findings that negative affect is associated with workaholism (*H1*), and that positive affect is associated with work engagement, (*H2*) are in line with previous research (e.g. Burke and Matthiesen, 2004; Schaufeli and Van Rhenen, 2006, respectively). Since one of the characteristics of an

addiction is that people execute a specific behaviour to alter a mood state (Griffiths, 2005a), our findings may imply that working frantically may be an attempt to modify (Griffiths, 2005b) or to avoid one's negative mood state (Porter, 1996). Positive affect, on the other hand, stimulates approach behaviour, which motivates individuals to engage in particular activities (Carver and Scheier, 1990), and leads to work engagement (Salanova *et al.*, 2010). A novel finding, based upon employees' responses to short descriptions of a hypothetical employee, is that workaholics are likely to continue working when they can do more and only stop when they feel that they have done enough (*H3*). This is in line with the common perspective on workaholism, namely that workaholics compulsively work beyond their job descriptions (Schaufeli *et al.*, 2006b, 2008b). The finding sheds light on the motivation of these employees to work longer hours than they have to. It seems to imply that workaholic tendencies may be energized by high personal standards and self-imposed goals, and not by enjoyment of work. When workaholics fail to meet their own expectations they may feel incompetent. In order to boost their feelings of low self-worth, workaholics may work even harder to attain their career goals (Porter, 1996). In contrast, no relationship existed between the enjoyment stop rule on the one hand and work engagement on the other hand (*H4*). A possible explanation for this lack of the relationship might lie in the way the scenarios are formulated. The enjoyment stop rule scenario describes a person who quits when he or she no longer enjoys his or her activities. However, in hindsight this might be ambiguous considering that most people have a job that they, at least to some degree, enjoy doing. On second thoughts it would have been better to use a description of a person who quits working when noticing that for the moment he or she enjoys the task to a lesser degree. Furthermore, one also might argue that the lacking relationship might indicate that engaged employees use different criteria to quit than enjoyment stop rules.

The expected interactions between the enough stop rule and negative mood on workaholism in general (*H5*) and between the enjoyment stop rule and positive affect on work engagement (*H6*) were not established. This possibly indicates that employees do not use their current mood as input to their stop rules. However, it is also possible that the lacking interaction between mood and stop rules could be a result of reduced statistical power; that is the difficulty of identifying moderation in nonexperimental research (McClelland and Judd, 1993).

Finally, it seems that work engagement slightly increases with age, whereas workaholism rather declines with age. Furthermore, it appears that work engagement increases with the freedom to decide when to stop working. However, these relationships are rather weak, and therefore the importance of these findings is questionable.

Limitations

A shortcoming of the survey study is that it is unknown to what extent the convenience sample represents the characteristics of the general population. However, rather than generalizable to the working population, the current study is exploratory in nature because it applies the MAI model to the work context for the first time. Still, the occupational heterogeneity of the present sample might have influenced the results on the use of stop rules. That is, the level of autonomy to decide when to stop and continue working is different for every employee, depending upon the type of job involved. We

tried to solve this issue by controlling for self-reported autonomy. However, a more reliable approach would be to study a homogeneous population, well-known for its working time autonomy. Although using short scenarios in exploratory research has some advantages, a drawback of such an approach to assessing stop rules is the issue whether the hypothetical situations used relate to real life. Despite the limitations of this approach in terms of representativeness, we believe that the scenarios provided valuable insights into the participants' perspective on reasons to stop working.

In addition, the MAI model does not provide a framework for distinguishing other potentially relevant stop rules. Obviously, there are plenty of other reasons why people quit working on a workday. However, the focus of the current study was on distinguishing internal stop rules of work engaged and workaholic employees. Our findings may serve as a basis for more extensive research on stop rules.

Furthermore, according to Podsakoff and Organ (1986) the use of self-reports may bias the results due to common method variance which artificially inflates the relationships between such variables (e.g. response styles). However, Spector (2006) has argued that the impact of common method variance has been largely overrated and is not specific for self-report measures.

Finally, one might argue that work engagement and positive affect are conceptually closely related. Nonetheless, we are confident that this conceptual overlap does not bias the findings of our study. Firstly, work engagement is cognitive-affective concept (i.e. a state of mind), whereas positive affect is an affective concept (i.e. state of feelings). To illustrate, an employee might feel general enthusiasm regarding his job, but in the meantime he might also experience other specific fluctuating emotions at work. Hence, work engagement is a generally chronic state, whereas positive emotions are momentary experiences. Secondly, a confirmatory factor analysis showed that work engagement and positive affect formed two reasonably distinct factors.

Future research

In contrast with the present study, George and Zhou (2002) used a more objective dependent measure (creative performance as rated by a supervisor). It would be interesting to examine whether measuring the objective persistence of workaholics and work engaged employees (by means of observation) is an useful approach to capturing the mood/stop rule interaction than their subjective experience only. Furthermore, it is likely that in a career context other types of subjective experiences, other than mood, will affect stop rules. Vaughn *et al.* (2006), for instance, found that people may use regulatory fit as input to their stop rules. Regulatory fit is the extent to which one's goal-pursuit strategies corresponds to one's goal orientation (promotion versus prevention) (Higgins, 1997, 1998). Briefly, prevention-focused individuals concentrate on avoiding the presence of negative outcomes, whereas promotion-focused individuals concentrate on avoiding the absence of positive outcomes. Evidence shows that experiencing regulatory fit produces feelings of rightness, whereas regulatory nonfit causes feelings of wrongness (Camacho *et al.*, 2003). Further examination of other types of subjective experiences in the context of stop rules offers an interesting avenue for further investigation.

Furthermore, since autonomy as a control variable contributed significantly to work engagement, it might be illuminating to add a more comprehensive measure of autonomy. By means of this measure it could be further elaborated whether worker's

hours flexibility or whether the nature of the work itself (e.g. should a task essentially be completed at the end of the day) influences work engagement and workaholism. It is possible that after including these aspects of autonomy the Enough rule is still related to workaholism, since workaholics may be unable to detach from work, regardless of the level of autonomy. For instance, Russo and Waters (2006) found that workaholism did not moderate the relationship between access to weekly flexible scheduling and work family conflict.

In addition, the Mood As Input process may be difficult to capture in a survey design, as mood and stop rule use may fluctuate on a day to day level. We suggest that future research could examine the day to day interplay of stop rules and mood by means of ambulatory monitoring to gain a better understanding of the motivation to work persistently. Moreover, future research should focus on the framing of stop rules. In the model as proposed by Martin (2001) only two stop rules are included, i.e. the enough and enjoyment stop rule. Several studies proposed alternative stop rules. For instance, Jefferis and Fazio (2008) proposed a “mastery” and “tiredness” stop rule. It is likely that some employees could also be focused on performing their daily work until they are “tired” or until they have “mastered” a certain task. It might be that in work contexts one of these stop rules, most probably the “tiredness” stop rule, substitutes the enjoyment stop rule. Considering the fact that both work engaged and workaholic employees seem to have a strong focus on continuing working, it might also be valuable to distinguish between reasons to stop and to continue working. A final question we consider a fruitful topic for future research is to what extent stop rules can be altered. If feasible, this might form a plausible foundation for intervention programmes for workaholics (Van Wijhe *et al.*, 2010).

Implications

This study is potentially valuable to human resource (HR) managers and career counselors, as it gives insight into the difference between workaholism and work engagement. Since workaholism is associated with burnout and job satisfaction (Burke *et al.*, 2006), it is vital for organizations to assess and monitor workaholism. HR professionals and counselors should become aware of the fact that levels of positive and negative affect, but also the reasons of employees to work long hours may differ. This knowledge can help professionals to specifically address the critical issue of addiction to one’s work, and thereby stimulating the career development of employees (Burke and MacDermid, 1999). In addition, in order to facilitate the adoption of Enjoyment rules by employees, it is important for organisations to create resources that are known to cultivate enjoyment at work, such as social support and clearly defined work goals (Salanova *et al.*, 2006).

Furthermore, since demanding careers can easily result in working too long hours and workaholism (Cooper, 2005), employees have to take their responsibility of finding or keeping a healthy way of working. Career counseling may help employees to reflect on their underlying motivations and ambitions, and to strive for a healthy balance between work and private time.

Conclusion

All in all, the results of our study show that workaholics reported more negative affect, whereas work engaged employees experienced more positive affect. In line with

expectations, workaholism is associated with different reasons to stop or persist working than work engagement. Workaholism is related to continuing until the employee feels that he or she put sufficient effort into work, whereas work engagement is not related to using this criterion. To our knowledge, this is the first study that used the MAI model to uncover the motivation to work persistently. For a precise account of how, where and when mood and stop rules influence workaholism and work engagement, more research needs to be conducted. Nonetheless, the present findings may serve as a starting point for further inquiry into how workaholic and engaged employees differ regarding their motivation to work persistently.

Note

1. Given the possible overlap between Work Engagement and Positive Affect, a Confirmatory Factor Analysis (CFA) was conducted on the work engagement (UWES) items and the positive emotions (PANAS) items. A one-dimensional structure was tested against a two-dimensional structure, with engagement and positive emotions as separate dimensions. Relative to the one-factor model ($\chi^2(5) = 91.53$, $p < 0.001$, NFI = 0.80, CFI = 0.81, GFI = 0.84, RSMEA = 0.32) the fit of the two-dimensional structure was superior ($\chi^2(4) = 16.43$, $p < 0.01$, NFI = 0.96, CFI = 0.97, GFI = 0.97, RSMEA = 0.13), $\Delta\chi^2(1) = 64.33$, $p < 0.001$. This result supports the distinctiveness of work engagement and positive mood states.

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Further reading

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