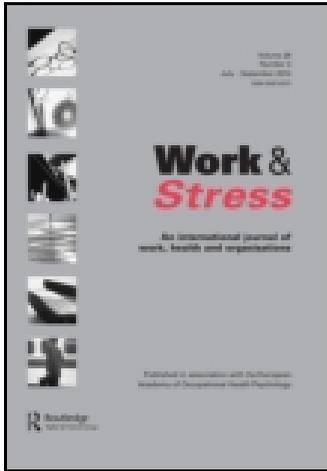


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Mastery-approach and mastery-avoidance goals and their relation with exhaustion and engagement at work: The roles of emotional and instrumental support

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The results of two cross-sectional studies ($N = 220$ and $N = 258$) indicate that employees' work-related mastery-approach goals (i.e. the striving to improve one's performance at work) were positively associated with work engagement. Further, this relationship is explained by high levels of instrumental support. In contrast, employees' work-related mastery-avoidance goals (i.e. the striving to avoid performing worse than one aspires to) are positive predictors of job detachment and fatigue. The relationships between mastery-avoidance goals and these detrimental work outcomes are explained by low levels of perceived emotional support. Altogether, these results suggest that workers with mastery-approach goals tend to invest in their social work environment by establishing instrumental exchange relationships. Such relationships are considered functional for task performance and explain the positive relationship with work engagement. Employees who hold mastery-avoidance goals, on the other hand, tend to withdraw from the social structure of the workplace which explains the negative relationship with emotional support. In turn, given the lack of emotional support, psychological detachment and fatigue may emerge. These results are discussed in relation to the surging interest in the social mechanisms that result from the pursuit of achievement goals.

Keywords: achievement goals; social support; team-member exchange; occupational well-being; exhaustion; work engagement

Introduction

Why do some people get carried away when they are working, whereas others feel worn out at the end of a working day? Why do some find their work inspiring, while others are cynical about their jobs? The present research takes a motivational perspective on this topic and demonstrates that the self-referenced goals employees pursue play an essential role in work exhaustion and engagement. We argue that, although individuals pursue self-referenced goals, the social mechanisms of the work context explain the negative and positive job outcomes of those self-referenced goals. Foreshadowing our arguments,

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when people strive for job-related self-improvement, we propose that this will help to establish instrumental support from their environment, which can aid being positively engaged at work. In contrast, when workers want to avoid performing worse than they aspire, this may be negatively connected to perceived emotional support from co-workers, which, in turn, may explain job detachment and fatigue. Thus, depending on the type of goals people are pursuing, we expect two different mechanisms to be activated, instrumental support versus emotional support, which should explain different work outcomes. In this study we focus on the role of two types of mastery goals in work exhaustion and work engagement: mastery-approach and mastery-avoidance goals. These two goals are the most prevalent in the workforce with recent estimates of 41% adopting mastery-approach goals and 23% adopting mastery-avoidance goals (Van Yperen & Orehek, 2013), but at the same time the latter type is understudied. For instance, in a recent meta-analysis of achievement goals, no estimate of the relationship between mastery-avoidance and its outcomes at work could be provided due to the lack of studies in the work domain (in contrast to the sports and educational domains, Van Yperen, Blaga, & Postmes, 2014). In this paper we argue that mastery-approach and mastery-avoidance goals are distinct ways of self-regulation and, as a result, are associated with dissimilar types of social support, which could explain differences in work exhaustion and work engagement.

We believe that, to date, research on achievement goals and the work stress-engagement literature have evolved largely separately (for exceptions, see De Lange, Van Yperen, Van der Heijden, & Bal, 2010; Van Yperen & Janssen, 2002). This is unfortunate, as goal setting and goal strivings of employees are omnipresent and important aspects of organizational life in today's organizations. Also, the frustration that accompanies not achieving one's own goals has been identified as an important determinant of stress (e.g. Sideridis, 2005). Indeed, goal setting gives meaning to work activities and may be regarded as a crucial foundation of well-being (Diener, 1984). We present two cross-sectional field studies that provide a first step towards a better understanding of how self-referenced goal strivings may affect individual work exhaustion and engagement and, by doing so, may potentially extend well-established models of job stress (e.g. Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) and work engagement (Bakker, 2011). From a practical perspective, a better insight in how achievement goal striving relates to exhaustion and engagement can help in designing personalized goal setting interventions (e.g. training incremental mindsets) that may promote the most optimal goals in employees. Also, it may contribute to designing work environments (e.g. with an emphasis on personal development) that help in shaping a goal climate which facilitates the uptake of specific achievement goals in workers in order to mitigate stress effects and facilitate engagement.

Achievement goals

In this paper, we build on the achievement goal approach (e.g. Elliot, 2005) as an alternative framework to traditional models explaining work stress and engagement. Achievement goals reflect the purpose of an individual's achievement pursuits in a particular situation. The achievement goal literature typically distinguishes between two types of goals: mastery goals and performance goals. Mastery goals focus on *intrapersonal* standards of competence and performance goals focus on *interpersonal* standards of competence¹ (Dweck, 1986; Nicholls, 1984). Inconsistent effects of mastery

and performance goals dealing with task processes and outcomes such as interest in task execution, task persistence and performance level have often been observed (Elliot, 2005; Elliot & Church, 1997; Elliot & Harackiewicz, 1996). It has been suggested that the specific *valence* of achievement goal regulation plays a key role (Elliot & McGregor, 2001). Indeed, mastery and performance goals can be directed at positive or desirable events or at avoiding negative and undesirable events, that is, they can be *approach* or *avoidance* goals.² Consequently, *performance-approach goals* can be defined as the desire to do better than others, whereas *performance-avoidance* goals are conceptualized as the desire to avoid doing worse than others. Likewise, mastery goals are also bifurcated into avoidance and approach types. Accordingly, *mastery-approach goals* reflect the desire to attain self-improvement – for example, when a teacher tries to learn as much as possible, there is to learn in her job. *Mastery-avoidance goals* reflect the desire to avoid not performing worse than one aspires to, such as when an insurance clerk fears to experience a less-than-optimal personal job development. Although the latest addition to the achievement goal framework – mastery-avoidance goals – has now been widely accepted in the literature, to date little research has explored the effects of these mastery-avoidance goals. This is unfortunate, and not only because mastery-avoidance goals are actually among the most prevalent achievement goals (De Lange et al., 2010; Van Yperen, 2006; Van Yperen, Hamstra, & Van der Klauw, 2011), but it has been shown also that pursuing avoidance goals versus approach goals may have strong effects on various aspects of the psychological functioning of individuals such as task performance, well-being, attentional processes, social comparison and formation attitudes (e.g. Elliot, 2008; Van Yperen, Elliot, & Anseel, 2009).

The first main contribution of the current study is that it argues and demonstrates that mastery goals affect work-related outcomes through the social work environment. Because of their self-referenced focus, research has mostly focused on individual and intrapersonal outcomes of pursuing mastery goals (e.g. task execution, task interest, intrinsic motivation). However, the use of a self-referenced standard for evaluating goal progress (e.g. “am I performing on a level that is progressing towards task mastery”) does not imply that these individuals would be self-absorbed or self-centred. Instead, we propose that mastery-avoidance and mastery-approach goals give rise to qualitatively different social mechanisms in work contexts, which in turn can explain differences in how workers experience occupational well-being. Earlier studies have demonstrated that mastery-approach goals give rise to interpersonal mechanisms that may support successful goal attainment such as a focus on reciprocal helping (e.g. Poortvliet, Janssen, Van Yperen, & Van de Vliert, 2009b), while these mechanisms are absent in the pursuit of performance goals. Indeed, performance goals may even give rise to rather competitive tendencies (Poortvliet, Anseel, Janssen, Van Yperen, & Van de Vliert, 2012). Given our emphasis on the role of social mechanisms in work contexts, in the current paper we focus exclusively on mastery goals because these goals have been prominently associated with social support indicators, unlike performance goals. Thus, while previous research has typically pitted mastery goals against performance goals, somewhat neglecting the distinction between mastery goals, the present study aimed to directly document the diverging effects (and its mechanisms) of adopting different mastery goals.

A second contribution of the current study is its unique focus on stress and well-being, whereas the vast majority of achievement goal research has focused on individual performance as an outcome measure (e.g. Murayama & Elliot, 2012). In that respect, a recent meta-analysis suggests that mastery-approach goals have a robust positive

relationship with task performance (Van Yperen et al., 2014), and other work shows that having mastery-approach goals is typically associated with high intrinsic motivation and high task interest (e.g. Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Skaalvik, 1997). Also, important but limited empirical evidence has established links between achievement goals and work stress and well-being. Van Yperen and Janssen (2002) showed that the positive association between job demands and fatigue is especially pronounced when individuals have relatively strong mastery goals but weak performance goals. De Lange et al. (2010) showed that relative to individuals with mastery-avoidance goals, employees with mastery-approach goals reported higher levels of work engagement. By investigating mastery goals and the role of perceived social support, the current research aims to extend these earlier lines of research and to offer a better understanding of employees' stress and well-being, which may help to develop effective motivational interventions in organizations.

Social mechanisms in mastery goal pursuit

Although people with mastery goals are concerned about their own performance – striving to attain task mastery or avoiding not attaining it – setting such individualistic goals may have social effects (Darnon, Dompnier, & Poortvliet, 2012; Senko, Hulleman, & Harackiewicz, 2011). To date only a few studies have focused on interpersonal mechanisms in relation to mastery goals in organizational settings. For example, Janssen and Van Yperen (2004) showed that leader–member exchange predicted job satisfaction and job performance in employees who adopted mastery-approach goals. Likewise, Poortvliet and Giebels (2012) demonstrated that mastery-approach goals were positively associated with quality of exchange relationships between colleagues, and, in turn, had positive relationships with organizational commitment, job satisfaction and job performance. So, trying to improve one's own previous performance (i.e. pursuing mastery-approach goals) may importantly affect how workers behave in social exchange situations and how they shape the exchange relationship with their colleagues. Yet, it is unclear how mastery-avoidance goals affect social processes. In the present paper, we argue and demonstrate that the pursuit of mastery-avoidance goals versus mastery-approach goals has differential relationships with exhaustion and engagement. Furthermore, we posit that two distinct pathways, the emotional and the instrumental types of social support (Carver, Scheier, & Weintraub, 1989; Cohen & Wills, 1985), link mastery-avoidance goals versus mastery-approach goals to work-related exhaustion and engagement.

When individuals pursue mastery-avoidance goals, they strive to avoid performing worse than their potential. Being occupied with preventing such a possible negative outcome is a psychologically complicated way of self-regulation, because it inherently intertwines a drive towards self-improvement with a mindset of not meeting that particular outcome (Sideridis, 2008). As such, persons with mastery-avoidance goals need to divide their attention between the task itself and being concerned about not attaining task mastery, which effectively takes away cognitive capacity from the task. Indeed, it has been shown that the pursuit of mastery-avoidance goals leads to disorganized task performance, feelings of worry and emotionality (Elliot & McGregor, 2001), avoidance of help-seeking (Karabenick, 2003) and stalling task performance (Van Yperen et al., 2009). This is in line with the observation that avoidance goals in general are negatively associated with perceived competence and well-being (Elliot & Church, 2002; Elliot & Sheldon, 1998; Tamir & Diener, 2008). In particular, a work environment

offers a network of colleagues with whom one can interact on a task-related level but also on a more personal level. The first type of interaction establishes an *instrumental* form of social support, which is characterized as support that may aid employees in successfully performing tasks. For example, research showed that team-member exchange, which captures the quality of an actor's established reciprocal work relationships with co-workers, is positively related to team efficacy and team decision making (Dierdorff & Ellington, 2012). The second gives rise to an *emotional* form of support: the perception to be accepted by and have companionship with others and the feeling of being able to turn to others in case of problems (Beehr, Jex, Stacy, & Murray, 2000; Carver et al., 1989; Cohen & Wills, 1985). A hazard that accompanies the disorganized and worrisome task execution typically associated with mastery-avoidance goals is that this could also be associated with *social* withdrawal from the immediate task environment (cf. Beck, 1967; Buhs, Ladd, & Herald, 2006). Work can fulfil some of the most valuable assets in life such as feeling to have a meaningful contribution to society, realizing one's ambitions and experiencing rewarding social relationships. For instance, self-determination theory posits that people have innate needs for competence and relatedness that are preconditions of psychological growth and well-being (Deci & Ryan, 2000). Those assets may be at stake when mastery-avoidance regulation leads to disorganized work effort and pulling out from interactions with other people. What is more, albeit only on a personal level, these interactions may offer important psychological resources, like experiencing a relatively conflict-free and pleasant work environment and feeling trusted and valued by colleagues. Individuals with avoidance goals have an inherently negative focus on their work-related efforts and may feel depleted and unable to engage in proactive behaviours that may actually help them to attain their goals (Oertig et al., 2013), such as establishing rewarding social relationships with actors in the working environment.

Although people with mastery-avoidance goals may believe that others may help them to reach their mastery goal (Poortvliet et al., 2009b), we posit that long-term striving for mastery-avoidance goals is a rather taxing form of achievement regulation. Indeed, like De Lange et al. (2010) mention, "mastery-avoidance goals include a negative outcome as anchor for self-regulation." Feelings of worry – typically associated with mastery-avoidance goals (e.g. Elliot & McGregor, 2001) – can erode one's cognitive capacities that are available for successful task performance (Eysenck, Deraksha, Santos, & Calvo, 2007). Similarly, research by Roskes, Elliot, Nijstad, and De Dreu (2013) showed that avoidance goals were more vulnerable to erroneous task performance under time pressure. Finally, fear of failure – predicted by mastery-avoidance goals (Elliot & McGregor, 2001) – is associated by a wide range of interpersonal problems and distress (Conroy, Elliot, & Pincus, 2009) and therefore we expect that it to spill over to reduced levels of experienced emotional support. We therefore expected that mastery-avoidance goals are negatively related to the experience of emotional support (Hypothesis 1).

The psychological regulation of mastery-approach goals is importantly different, though. For one thing, task-performance aimed at self-improvement may be generally experienced as a positive challenge rather than as a burden. Specifically, during job-related task-execution, employees typically encounter both successes and setbacks. The first is an indication that one is moving in the direction of goal attainment, while the latter signifies the potential of self-improvement and such a challenge is likely to lead to activation and proactive behaviours (Blascovich & Mendes, 2000; Folkman & Lazarus, 1985). Despite the individualistic nature of mastery-approach goals – they are focused on *self-improvement* – these goals lead to generally constructive tendencies in social task

situations (Darnon et al., 2012) and an interest in instrumental help seeking (Karabenick, 2003). The establishment of cooperative working relationships with others serves as a means to reach their individual goal of self-improvement. Therefore, workers with mastery-approach goals may perceive positive means interdependence with colleagues (Deutsch, 1949). Hence, we argue that instrumental exchanges with colleagues can serve as an important means by which they can reach their individual goal of self-improvement and individuals with mastery-approach goals be rigged towards establishing instrumental working relationships. Earlier research has indeed indicated that mastery-approach goals lead to a reciprocity orientation – the expectation that giving valuable task-information to exchange partners leads to receiving valuable information in return (Poortvliet et al., 2009b). However, such an orientation serves a primarily instrumental motive and individuals with mastery-approach goals will typically only invest in social exchange when this serves their own self-improvement goal (Poortvliet, 2013; Poortvliet, Janssen, Van Yperen, & Van de Vliert, 2009a). So, the investment in social exchange may be self-serving in the sense that task-related exchanges can aid in obtaining useful task-related information and promote self-improvement, which ultimately leads to positive job outcomes (cf. Hertel, Konradt, & Orlikowski, 2004). In this regard, the concept of team-member exchange (Seers, 1989) is very relevant, which captures the quality of an actor's established reciprocal work relationships with co-workers. This construct reflects whether individuals experience instrumental support from their colleagues, as indicated by the exchange of work-related information, feedback and help. Given the inherent interest in investing in work-related exchange relationships, we expected that mastery-approach goals are positively related to instrumental support (Hypothesis 2).

Social support, exhaustion and engagement

Furthermore, we posit that these two distinct types of social support – emotional support and instrumental support – may explain why workers appraise their work as having little meaning and mentally draining, or engaging, respectively. Setting mastery-avoidance goals is an emotionally taxing form of goal pursuit and may act as a motivational obstacle at work. Indeed, earlier work indicated that setting mastery-avoidance goals impedes the otherwise positive relationship between task interest and task performance (Van Yperen, 2003). Having such achievement goals encompasses a constant focus on the possibility of *not* attaining improved mastery in one's job, which may lead to feelings of worry (Sideridis, 2008). Such ongoing experience of strain may lead these workers to identify their job as a source of negativity, to become psychologically detached from it and to experience work-related fatigue. Over time, these detrimental dynamics will lead to lower levels of occupational well-being (cf. Elliot & Sheldon, 1998; Van Yperen, Verbraak, & Spoor, 2011). We therefore expected mastery-avoidance goals to be positively related to job detachment (Hypothesis 3a) and fatigue (Hypothesis 4a).

Next, to further elucidate why mastery-avoidance goals may have their negative effects, we posit that emotional support acts as an interpersonal resource that may explain the detrimental outcomes of achievement goals. Specifically, we propose that the lack of emotional support experienced by workers who adopt mastery-avoidance goals may explain why they encounter negative job outcomes. Indeed, it is firmly established that emotional support relates negatively to detrimental outcomes of psychological strain (Beehr et al., 2000; Cohen & Wills, 1985). Therefore, we expected that emotional support

would explain the positive relationship between mastery-avoidance goals and detachment (Hypothesis 3b) and fatigue (Hypothesis 4b).

Instead of being concerned about stalling performance improvement, individuals who have mastery-approach goals are positively challenged of mastering tasks as their main regulatory hub. Indeed, mastery-approach goals are positively related to experiencing task interest (Harackiewicz et al., 2000), effective task processing (Ford, Smith, Weissbein, Gully, & Salas, 1998), job satisfaction (Janssen & Van Yperen, 2004) and organizational commitment (Poortvliet & Giebels, 2012). So, the adoption of mastery-approach goals directs the attention of individuals to the task at hand rather than to collateral matters such as fear of failure. We therefore expected that mastery-approach goals are positively related to work engagement (Hypothesis 5a).

Furthermore, we propose that the instrumental form of social support may explain this relationship. Individuals who have mastery-approach goals tend to build reciprocal work relationships with others (e.g. Poortvliet et al., 2009b) and tend to constructively collaborate with peers in order to better master tasks (Darnon, Butera, & Harackiewicz, 2007). This building of instrumental work relationships is conducive to the attainment of self-improvement goals and directs individuals' efforts to the actual performance of work. We therefore expected that instrumental support may explain the positive relationship between mastery-approach goals and work engagement (Hypothesis 5b).

Overview of studies

The hypotheses developed in this paper will be tested in a series of two cross-sectional field studies. Study 1 aims to test whether holding mastery-avoidance goals negatively impact social support mechanisms in an occupational setting, and whether such mechanisms can explain negative work outcomes. Specifically, it is tested whether mastery-avoidance goals are positively related to job detachment and whether the negative association with emotional support acts as an explanatory mechanism in this relationship. Thus, Hypotheses 1, 3a, and 3b are tested in Study 1. In Study 2, we aimed to extend these results by investigating whether this negative association of mastery-avoidance goals would spill over to a measure of fatigue. Furthermore, this study examined whether mastery-approach goals have a positive relationship with a measure of instrumental support. In Study 2, it will therefore be tested whether building of such instrumental relationships would promote work engagement. Thus, Hypotheses 2, 4a, 4b, 5a, and 5b will be tested in Study 2.

STUDY 1

Method

Participants and procedure

The relationship between mastery goals, emotional support and job detachment was measured in a field study conducted among employees who worked either in a primary education organization, either at the head office or at local schools ($N = 106$), or in the accounting division of an insurance company ($N = 114$), both in the south of the Netherlands.³ These sites were visited by a research assistant who asked team leaders to hand out the questionnaires to the employees. The samples were pooled in order to increase statistical power and to achieve greater occupational heterogeneity. Of the 220 respondents, 37 were male and 121 were female.⁴ The participants' ages ranged from 15

to 65 years (15–25 years: 5.9%; 25–35 years: 28.6%; 35–45 years: 30.9%; 45–55 years: 20.9%; 55–65 years: 12.3%) and tenure ranged from 0–5 years (20%), 5–10 years (23.2%), to more than 10 years (55%).

Measures

Achievement goals. Individual differences in mastery goals were tested with Elliot and McGregor's (2001) achievement goal questionnaire, adapted to make it suitable for a work context (cf. Poortvliet & Giebels, 2012). The participants responded to three mastery-avoidance goal items ($\alpha = .77$) and three mastery-approach goal items ($\alpha = .84$). Illustrative items are "I am often concerned that I may not learn all that there is to learn in my work" (mastery-avoidance goal), and "In my work, my goal is to learn as much as possible" (mastery-approach goal; 1 = *not at all*, 7 = *very much so*).

Emotional support. The quality of employees' perceived level of emotional support was measured with a seven-item scale based on Van Veldhoven and Meijman (1994; $\alpha = .87$). A sample item is "Do you feel valued by your colleagues?" Employees indicated the extent to which the items were applicable to them (1 = *not at all*, 7 = *very much so*).

Job detachment. The level of experienced job detachment was assessed with a four-item scale developed by Schaufeli and Van Dierendonck (2000; $\alpha = .81$). Employees were asked to rate items that expressed their aloofness with regard to their job. An example item is "I doubt the meaning of my work" (0 = *never*, 6 = *always*).

Results

Descriptive statistics, correlations and exploratory factor analysis

Means, standard deviations (*SDs*) and zero-order Pearson correlations between the variables are presented in Table 1. We conducted an exploratory factor analysis in order to verify the scales' discriminant validity. The items of the measures were submitted to a principal components analysis with varimax rotation. Four factors with eigenvalues greater than 1 emerged, accounting for 66.4% of the variance. Each item loaded on its appropriate factor, with their primary loadings exceeding .62 and with cross-loadings not higher than .33.

Table 1. Means, standard deviations and Pearson correlations between the variables (Study 1; $N = 220$).

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1 Age	3.05	1.12					
2 Tenure	2.36	0.80	.48***				
3 Mastery-avoidance goal	3.08	1.40	-.09	.00			
4 Mastery-approach goal	4.28	1.45	.03	-.07	.16*		
5 Emotional support	6.08	0.75	.01	-.03	-.22**	-.04	
6 Job detachment	1.06	1.06	.04	.22**	.29***	.08	-.35***

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Test of direct effects

Hierarchical regression analyses consisting of two successive steps were conducted to test our expectations. In the first step, the socio-demographic variables were entered as covariates to control for relationships with age and tenure in the regression models. In the second step, we included mastery-avoidance goals and mastery-approach goals to test their hypothesized associations with the mediating and outcome variables.

Table 2 shows that, in line with Hypothesis 1, mastery-avoidance goals were negatively related to emotional support. In addition, mastery-avoidance goals were found to be positively related to job detachment (Hypothesis 3a). As an aside, mastery-approach goals were not found to be significantly related to emotional support and job detachment.

Mediation analysis

To investigate whether the positive relationship between mastery-avoidance goals and job detachment could be explained by the strength of perceived emotional support, we conducted an additional mediation analysis. As shown in Table 2 and consistent with the mediation expectation, when emotional support was added to the model, the regression coefficients of the relationships between mastery-avoidance goals and the job detachment outcome variable decreased from .25 ($p < .001$) in the second step to .19 ($p < .01$) in the third step, which indicates partial mediation. Moreover, emotional support as a mediator had a significantly negative association with job detachment. Finally, to test whether the relationship between mastery-avoidance goals and the job detachment variable significantly decreased upon the addition of emotional support, we performed a bootstrap analysis (MacKinnon, 2008). This involves computing 95% confidence intervals (CIs) around indirect effects, and mediation is indicated by CIs that do not contain zero. The test revealed that emotional support mediated the relationship of mastery-avoidance goals with job detachment (CI ranged from .0221 to .1009; 5000 bootstrap resamples; $p < .05$). So, in line with Hypothesis 3b, higher levels of mastery-avoidance goals promote lower levels of emotional support, which in turn leads to higher levels of reported job detachment.

Table 2. Results of regression analyses (Study 1; $N = 220$).

Step and variables	Job detachment			Emotional support	
	1	2	3	1	2
1. Age	-.07	-.04	-.04	.03	.01
Tenure	.25**	.24**	.23**	-.04	-.03
2. Mastery-avoidance goal		.25***	.19**		-.21**
Mastery-approach goal		.04	.04		.00
3. Emotional support			-.31***		
ΔR^2	.05**	.07***	.09***	.00	.04**
Adjusted R^2	.04**	.10***	.19***	-.01	.03*

Note: Standardized regression coefficients are reported for the respective regression steps. Step 1 includes socio-demographics, Step 2 includes socio-demographics and mastery goals and Step 3 includes socio-demographics, mastery goals and emotional support.

* $p < .05$ (two-tailed test); ** $p < .01$ (two-tailed test); *** $p < .001$ (two-tailed test).

STUDY 2

The results of Study 1 corroborated our expectations. An increase in mastery-avoidance goals is associated with a decrease in perceptions of emotional support. Importantly, this social resource partially mediates the relationship between mastery-avoidance goals and job detachment. This observation is in line with our thesis that although mastery goals direct people's focus on an intra-individual standard, these goals are related to interpersonal dynamics that explain work outcomes. The question remains whether mastery-avoidance goal regulation is also associated with a wider range of unfavourable outcomes – apart from being cynical about work – related to the psychological functioning of individuals in organizations. Consequently, in Study 2 we tested our hypothesis that mastery-avoidance goals would also relate positively to fatigue.

Given the generally adaptive nature of mastery-approach goals, we were also interested whether individuals who strive for such goals would proactively invest in working relationships in order to get as much out of their work as possible. Therefore, in Study 2 we further aimed to investigate whether a qualitatively different social mechanism – instrumental support – would explain the expected positive relationship between mastery-approach goals and the positive antipode of job exhaustion–work engagement.

Method

Participants and procedure

The relationship between the two types of mastery goals, emotional and instrumental support, and fatigue and work engagement was investigated among members of the general Dutch working force. The participants, who were approached via the e-mail contact list of the third author and encouraged to spread the survey among acquaintances with jobs, or who were commuters and were approached in public transport, performed a wide range of jobs in different occupational classes. The largest job categories were professionals (24.0%), services and sales (22.1%), technical work (19.8%), executive positions (12.0%) and clerical jobs (12.0%). Of the 258 participants, 52.6% was male and the age ranged from 16 to 64 years, with an average of 35.08 years ($SD_{\text{age}} = 13.68$). Tenure ranged from 1 to 42 years, with an average of 8.54 years ($SD_{\text{tenure}} = 10.02$). On average the participants worked 30.58 hours a week ($SD = 13.28$), ranging from 5 to 65 hours. Of the participants, 8.4%, 38% and 52% indicated that they had completed lower, intermediate and higher education, respectively. Weighed against the Dutch work force (Dutch averages between parentheses), this sample is comparable in terms of gender composition (54.8% male), was younger (41.2 years), worked slightly less hours a week (34.1 hours) and was higher educated (19.1% lower, 43.5% intermediate and 37.4% higher education; CBS, 2013). Overall, these figures suggest that response bias was probably not a major threat to the results of this study.

Measures

Achievement goals. Individual differences in job-related mastery-avoidance goals ($\alpha = .82$) and mastery-approach goals ($\alpha = .80$) were assessed with the same instrument used in Study 1.

Emotional support. This was assessed with the same measure used in Study 1 (1 = *never*, 2 = *sometimes*, 3 = *often*, 4 = *always*; $\alpha = .74$).

Instrumental support. This was measured by assessing the quality of team-member exchange with a nine-item scale based on Seers (1989; $\alpha = .67$). Sample items are “Others are willing to finish work assigned to me” and “I often propose better work methods to others” (1 = *not at all*, 5 = *very much so*).

Fatigue. This was measured with an 11-item scale adopted from Van Veldhoven and Meijman (1994). A sample item is “By the end of the working day, I feel really worn out” (1 = *strongly disagree*, 5 = *strongly agree*; $\alpha = .88$)

Work engagement. This was measured with the 17-item Utrecht Work Engagement Scale (UWES, Schaufeli & Bakker, 2003). The UWES consists of statements that assess work-related vigour, dedication and absorption. Example items are, respectively, “At my work, I feel bursting with energy,” “I am enthusiastic about my job,” and “I am immersed in my work” (0 = *never*, 6 = *always*; $\alpha = .94$).

Results

Descriptive statistics, correlations and exploratory factor analysis

Means, standard deviations and zero-order Pearson correlations for the variables are presented in Table 3. Similar to Study 1, an exploratory factor analyses was performed. All measures were submitted to a principal components analysis with varimax rotation. Because one of the work engagement items had a high cross-loading, this item was deleted (Cronbach’s alpha of this adjusted work engagement scale was .95). Six factors with eigenvalues greater than 1 emerged, accounting for 51.5% of the variance. Each item loaded on its appropriate factor, with their primary loadings exceeding .30 and without cross-loadings higher than .38. Importantly, the primary loading of each item was higher than its cross-loading. Special attention was given to the discriminant validity of the emotional and instrumental support scales. The lowest primary loading of an emotional support item was .30; the lowest primary loading of an instrumental support item was .33. Furthermore, the highest cross-loading of an emotional support item on the instrumental support factor was .36, while the highest cross-loading of an instrumental support item on the emotional support factor was .18. Again, all items loaded higher on the appropriate factors, suggesting that the emotional and instrumental support scales indicated adequate discriminant validity.

Test of direct effects

Hierarchical regression analyses were conducted to test our expectations. In a first step, covariates were entered to control for gender, age and tenure in the regression models. In a second step, we included mastery goals to test their hypothesized associations on the mediating and outcome variables. Table 4 shows that, in line with Hypothesis 1, mastery-avoidance goals were negatively related to emotional support. Furthermore, confirming Hypothesis 2, mastery-approach goals were positively related to instrumental support. Mastery-avoidance goals were negatively related to instrumental support. In addition, mastery-avoidance goals were found to be positively related to fatigue (Hypothesis 4a). The regression analysis indicated that mastery-approach goals were also related to fatigue, but had a negative relationship. Furthermore, the results showed that mastery-approach goals were positively related to work engagement (Hypothesis 5a).

Table 3. Means, standard deviations and Pearson correlations between the variables (Study 2; $N = 258$).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Gender	1.47	0.50								
2 Age	35.08	13.68	.01							
3 Tenure	8.54	10.02	.00	.68***						
4 Mastery-avoidance goal	3.16	1.36	.02	-.24***	-.23***					
5 Mastery-approach goal	5.95	0.89	-.07	.00	.01	.04				
6 Emotional support	3.40	0.34	-.10	-.03	.06	-.19**	.07			
7 Instrumental support	3.54	0.41	-.16*	-.04	-.03	-.13*	.16**	.21***		
8 Fatigue	2.53	0.70	.02	-.07	-.06	.38***	-.11 [†]	-.28***	-.08	
9 Work engagement	4.18	1.04	-.07	.24***	.26***	-.06	.35***	.23***	.25***	-.22**

Note: [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Mediation analysis

To investigate whether the positive relationship between mastery-avoidance goals and fatigue could be explained through perceived emotional support, we conducted an additional mediation analysis. As shown in Table 4 and consistent with the mediation expectations, when emotional support was added to the model, the regression coefficients of the relationship between mastery-avoidance goals and fatigue decreased from .40 ($p < .001$) in the second step to .36 ($p < .001$) in the third step. Moreover, emotional support as a mediator was significantly negatively associated with fatigue. Finally, when instrumental support was added to the model, the regression coefficients of the relationships between mastery-approach goals and work engagement decreased from .33 ($p < .001$) in the second step to .29 ($p < .001$) in the third step. Moreover, instrumental support as a mediator had a significant negative association with work engagement. So, in all cases we found evidence for partial mediation. Finally, to test whether the relationship between mastery goals and the outcome variables significantly decreased upon the addition of emotional support and instrumental support, we performed a series of bootstrap analyses that allowed simultaneous testing of multiple mediators. Firstly, the test revealed that emotional support mediated the relationship of mastery-avoidance goals with fatigue (CI ranged from .0063 to .0442; $p < .05$); this bootstrap test further showed that instrumental support did not mediate this relationship (the CI contained zero). Therefore, and in line with Hypothesis 4b, we conclude that higher levels of mastery-avoidance goals promote lower levels of emotional support, which in turn leads to higher levels of reported fatigue. Secondly, bootstrap testing showed that instrumental support mediated the relationship of mastery-approach goals with work engagement (CI ranged from .0078 to .0903; $p < .05$), while this test showed that emotional support did not mediate this relationship (CI contained zero). So, in keeping with Hypothesis 5b, we conclude that higher levels of mastery-approach goals promote higher levels of instrumental support, which in turn leads to higher levels of reported work engagement.

GENERAL DISCUSSION

The present investigation showed that mastery goals are related to social interaction patterns that may explain why they are associated with beneficial or maladaptive work outcomes. Specifically, in Study 1 it was found that mastery-avoidance goals had a positive relation with experiencing feelings of detachment from the job. This maladaptive work outcome of mastery-avoidance goals could be explained by workers' experienced level of emotional support from their work environment. The results of Study 2 corroborated and extended these results. Mastery-avoidance goals had a positive relation with experiencing fatigue, whereas mastery-approach goals were positively related to work-engagement. Furthermore, emotional support and instrumental support mediated the observed relationship between mastery-avoidance goals and mastery-approach goals and work outcomes, respectively.

Theoretical and practical implications

The current study set out to inspire a new stream of research on the motivational underpinnings of exhaustion and engagement by focusing on how adoption of specific achievement goals may relate to these work outcomes through the type of support they receive from their work environment. Understanding how achievement goals may alter psychological functioning is theoretically important as it may bring new insights in the

Table 4. Results of regression analyses (Study 2; $N = 258$).

Step and Variables	Fatigue			Work engagement			Emotional support		Instrumental support	
	1	2	3	1	2	3	1	2	1	2
1. Gender	.03	.01	-.01	-.06	-.03	.02	-.09	-.08	-.18**	-.16**
Age	-.05	.00	-.01	.08	.09	.11	-.03	-.06	-.06	-.07
Tenure	-.05	.01	.02	.17*	.16*	.16*	.09	.06	.02	-.01
2. Mastery-avoidance goal		.40***	.36***		-.01	.05		-.20**		-.13*
Mastery-approach goal		-.14*	-.13*		.33***	.29***		.05		.15*
3. Emotional support			-.22***			.19**				
Instrumental support			.03			.18**				
ΔR^2	.01	.16***	.05**	.06**	.11***	.08***	.01	.04*	.04*	.04**
Adjusted R^2	.00	.15***	.19***	.05**	.15***	.22***	.00	.03*	.03*	.06***

Note: Standardized regression coefficients are reported. * $p < .05$ (two-tailed test); ** $p < .01$ (two-tailed test); *** $p < .001$ (two-tailed test).

domains of burnout and engagement research, as well as the achievement goal literature. Below we will elaborate on how these two theoretical frameworks may be integrated.

According to the job demands-resources model, the experience level of occupational well-being is dependent on job demands and job resources (Demerouti et al., 2001). The first requires constant effort by the employee and are taxing factors during job execution, while the latter operate to reach work goals, reduce demands and enhance personal growth (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). The present research suggests that achievement goals fulfil a similar, but not identical, role as job demands. Given the idiosyncratic process of setting achievement goals, we view mastery goals as a personal demand factor from which persons approach achievement situations in their work environment. On the other hand, social support functions similar to resources that explain the goal-well-being relationship. This integration of achievement goal theory with the job demands-resources model is in line with the framework posited by DeShon and Gillespie (2005). According to their motivated action theory model, achievement goals, such as mastery-avoidance goals or mastery-approach goals, operate on a level above the more specific action plan goals, which are rough guidelines or strategies that help in attaining the higher order achievement goals. One example of an action plan goal is the creation of specific resources that help to accomplish a person's goal. In our view, and in line with motivated action theory, the establishment and maintenance of social exchange relationships will further the individual's attainment of specific achievement goals.

Specifically, mastery-avoidance goals had a negative relationship with emotional support, whereas mastery-approach goals were positively linked with instrumental support. In turn, these relationships could explain the observed relationships with exhaustion and work-engagement, respectively. These outcomes signify the importance of social processes in intra-individual work outcomes. The negative relationship with emotional support indicates that the pursuit of mastery-avoidance goals carries the risk of withdrawal from social relationships, despite the fact that emotional support may have a pivotal function in preventing burnout (Beehr et al., 2000; Cohen & Wills, 1985).

The interpersonal pathway that explains the relationship between mastery-approach goals and work engagement (i.e. instrumental support) is importantly different. This type of social support is directly linked with successful task execution, such as helping a colleague to finish a certain task. In that sense, the positive association between mastery-approach goals and instrumental support may directly contribute to the attainment of goals, because building instrumental work relationships may help to improve one's task performance (cf. Poortvliet & Giebels, 2012; Poortvliet et al., 2009a).

In the current study, we conceptualized mastery goals as antecedents of exhaustion and engagement, but future research should benefit from extending this rather static perspective with a more dynamic approach. For instance, Schnelle, Brandstätter, and Knöpfel (2010) found that when individuals have few goal-relevant resources, they prefer adopting avoidance goals, whereas when individuals have many goal-relevant resources, they adopt approach goals. Thus, as also implied in broaden-and-build theory and conservation of resources theory, job resources and demands may be associated with the adoption of mastery goals, suggesting that goal adoption and its effects are dynamic, recursive processes in which resources most likely operate as both an antecedent and a consequence of goal adoption.

The associations that were found between mastery-avoidance goals and job detachment and fatigue may have important implications for practice. Mastery-avoidance

goals may be among the most common achievement goals in organizations (e.g. De Lange et al., 2010; Van Yperen, 2006). Well-being of employees can be increased if mastery-approach goals instead of mastery-avoidance goals are adopted. Previous studies showed the need for mastery goals and recommended teaching people to adopt incremental mind sets – the belief that abilities are not fixed and that personal development is fostered by putting effort in tasks (Dweck, 1986). Also VandeWalle and Cummings (1997) suggested that mastery-goals can be fostered by training the employees in their self-concepts and attributions of ability and effort. In addition to these practical applications, the current study shows that adopting an incremental mind set is not enough. Practitioners, when fostering mastery goals, should also focus on creating a climate of positive means interdependence. In this respect much can be applied from cooperative learning theory (for a meta-analysis of techniques, see Johnson, Johnson, & Stanne, 2000). Practitioners like supervisors, mentors and coaches should coach their employees, colleagues or clients to see the value of development. Also, management should adopt reward systems where competence development and cooperation is rewarded. Future research should investigate the effectiveness of goal setting interventions in order to stimulate more positive work outcomes and prevent exhaustion at the job.

Caveats and future directions

Some limitations of the present research warrant discussion. First, the convenience sample of Study 2 resulted in a heterogeneous group of respondents. However, in terms of demographics this sample was generally representative of the general Dutch working force. Secondly, the data collection had a cross-sectional nature, and all measures were reported by the same source. Although most of the variables that were studied were difficult to assess other than by asking the respondents themselves (measures of achievement goals, experienced support and experienced exhaustion and engagement), future research should ideally incorporate measures of different sources (e.g. by including objective reports of withdrawal at work). Nevertheless, the fact that mastery-approach goals were not significantly correlated with the proposed mediator between mastery-avoidance goals and work outcomes, emotional support, suggests that common method bias is not likely to be a viable alternative explanation for our findings (Spector, 2006). Finally, the present research proposes that achievement goals are antecedents of work outcomes – exhaustion and work engagement – and that this can be explained by two types of social support: Emotional and instrumental support. However, the research design of this study does not permit us to draw causal inferences and we are therefore careful to draw no such causal conclusions. Also, the presently used cross-sectional design does not enable us to test mediating *processes*. Our statistical analyses are limited to testing whether the association between variables (i.e. mastery goals and indices of well-being) may be explained by third variables (i.e. social support). Further, it should be noted that a measure of work engagement was only included in Study 2. It is a limitation of the current research that both well-being measures were not included in both studies. Finally, we treated mastery-approach and mastery-avoidance goals as separate goals, but following the multiple goal perspective (Elliot, 2005), the interplay between both types of goals and methods to determine relative ratios of different goals should be the focus of future research. Indeed, fluctuations in the relative strength of different achievement goals may occur across different achievement domains as well as within domains over time (Vansteenkiste, Lens, Elliot, Soenens, & Mouratidis, 2014). Furthermore, the underlying

reasons why individuals may pursue each of the goals may also affect their outcomes. Consequently, fluctuations in the focus on approach versus avoidance goals may be expected – and also simultaneously experiencing a lack of emotional support with an increase of instrumental support.

In evaluating the seemingly detrimental relationships that mastery-avoidance goals have with emotional support and with job-related exhaustion, it should be pointed out that the adoption of these types of achievement goal by workers is by no means exceptional (De Lange et al., 2010; Van Yperen, 2006; Van Yperen et al., 2011). This can make one wonder whether mastery-avoidance goals have any adaptive properties, and if so, what these are. Although the current research suggests that mastery-avoidance goals do not appear to be helpful for social aspects of work situations, perhaps in more individualistic work settings or in job types that require vigilance, risk avoidance and error detection, mastery-avoidance goals are indeed valuable (cf. Lauriola & Levin, 2001). It is our hope that future research will further refine and expand the insights into the work outcomes that are typically linked to achievement goals in general and mastery-avoidance goals in particular.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. People who pursue mastery goals can either compare their present performance with their earlier performance (i.e. temporal comparison) or make a comparison of themselves with what is the performance upper limit of the task at hand (i.e. task comparison). In both cases, mastery goal individuals make *intrapersonal* comparisons, in contrast to individuals who pursue performance goals who tend to compare their performances with those of others and thus make *interpersonal* comparisons (e.g. Zell & Alicke, 2010). Because using intrapersonal comparison standards focuses exclusively on how the self is performing, we use the term “self-referenced goals” to refer to the standard of reference of mastery goals.
2. It has, however, been firmly established that individuals can simultaneously hold multiple achievement goals (Barron & Harackiewicz, 2000; Elliot, 2005). That is, someone can at the same time be motivated to strive for mastery-approach and mastery-avoidance goals. In fact, mastery-avoidance goals correlated positively with mastery-approach goals in Study 1 of the present research (see Table 1). Although these two types of goals can coexist in a person, we treat them as conceptually separate constructs in the current paper. Therefore, we study the relationship of each separate mastery goal with social support and work outcomes, while controlling for the strength of the other mastery goal.
3. Analyses indicated that the type of organization did not impact the observed relationships of this study.
4. Due to the fact that a substantial proportion of the participants ($N = 62$) did not indicate their gender, this variable was not included as a covariate in the regression analyses.

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