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Workaholism versus work engagement and job crafting: What is the role of self-management strategies?

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Abstract

Job crafting refers to the proactive actions employees take to redesign their jobs in order to get a better fit with their competencies, expectations, and wishes. So far, little is known about job crafting's underlying mechanisms. In this study, we examine how two different states of affective well-being (workaholism and work engagement) relate to job crafting 3 months later and how these well-being states steer different self-management behaviours, which ultimately lead to job crafting. Structural equation modelling on a heterogeneous sample (N = 287) revealed that work engagement and workaholism both relate to expansive job crafting through different self-management strategies. Work engagement relates to challenge and resource seeking via self-goal setting and self-observation strategies, whereas workaholism associates with challenge and resource seeking only through self-goal setting. In addition, the results show a strong relationship between workaholism and self-punishment. Altogether, the findings suggest that self-management strategies can function as an explanatory mechanism for different job crafting behaviours.

KEYWORDS

job crafting, self-management, work engagement, workaholism

1 | INTRODUCTION

As work becomes more dynamic and decentralised, the need for employees to be proactive rapidly increases (Crant, 2000). Being part of the contemporary workforce automatically implies that employees need to adapt to an ongoing competition and uncertainty (Cowen, 2016). Whereas strong evidence exists for a negative impact of uncertainty on employees' well-being (De Witte, Pienaar, & De Cuyper, 2016), studies on proactive work behaviours reveal a positive impact on well-being (Tims, Bakker, Derks, & Van Rhenen, 2013). Hence, it is not surprising that the proactivity concept of *job crafting* is becoming a highly promising research object. Job crafting refers to all self-initiated actions employees take to shape, mould, and redefine their jobs in order to create a better fit with their jobs.

Although, job crafting reflects behaviour that is typically initiated by employees, Wrzesniewski and Dutton (2001) argue that organisations and managers also play an important role in stimulating crafting behaviour. Moreover, as job crafting has been related to many beneficial organisational outcomes, such as job satisfaction, work engagement, and both self-rated and other-rated work performance and contextual performance (Rudolph, Katz, Lavigne, & Zacher, 2017), it becomes an increasingly important tool for modern HRM practices.

Although job crafting is widely studied nowadays, little is known about its working mechanisms. In this study, we aim at contributing to this issue by examining mechanisms that might explain the associations between two different well-being states at work and job crafting. Two examples of oppositely motivated well-being states concern work engagement and workaholism (Schaufeli, Salanova, González-Romá, & Bakker, 2002; Schaufeli, Shimazu, & Taris, 2009). Work engagement is characterised by vigour, dedication, and absorption, and employees who score high on engagement tend to work hard because they like doing what they do (Van Wijhe, Peeters, & Schaufeli, 2013). Employees who score high on workaholism work hard because they feel a strong and irresistible drive to obtain external incentives, such as appreciation or status (Schaufeli, Taris, & Van Rhenen, 2008).

In the present study, we examine how employees consciously steer their behaviour towards job crafting by considering their self-management strategies. Self-management refers to how employees control their own behaviour without the need of supervision (Breevaart, Bakker, & Demerouti, 2014; Houghton & Neck, 2002). Through self-management, individuals influence themselves to acquire the direction to behave and perform in desirable ways. Examining how work engagement and workaholism predict self-management strategies informs us how different work motivations trigger proactive behavioural patterns.

According to behavioural change models, before actual behaviour change occurs, the change agent has a cognitive strategy on what goals to achieve (Michie, van Stralen, & West, 2011). Translated to the present study, we investigate how work engagement and workaholism (i.e., reflecting distinctive motivational states) cognitively steer behaviours towards job crafting behaviours. As such, the current study not only contributes to the quest of unravelling the job crafting mechanisms but also contributes to the literature on work engagement and workaholism by being the first study to specifically examine how self-management strategies associate with workaholism and work engagement.

2 | JOB CRAFTING

Job crafting is a concept that explicitly taps into the actions employees take independently from their supervisors in order to redesign their job in line with personal desires and perceived needs. Job crafting is theorised to stimulate the experience of meaningfulness and identity at work, which accordingly increases the person–job fit, and consequently, boosts employees' work motivation and work performance (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Research accumulatively demonstrates a positive impact of job crafting on employee work engagement and, in turn to performance (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Rudolph et al., 2017; Tims, Bakker, & Derks, 2013; Tims, Bakker, Derks, & Van Rhenen, 2013). However, according to Guest (2014), in order to deliver its promising benefits, engagement needs to be explicitly embedded within an integrated system of HRM policies, practices, and procedures. To this purpose, Albrecht, Bakker, Gruman, Macey, and Saks (2015) have developed a model that explains how a strategic focus on engagement can lead to competitive advantage. In this model, four key engagement-related HR practices are distinguished, namely, selection, socialisation, performance management, and learning and development. Self-initiated actions such as job crafting and voice are considered to be part of the learning and development possibilities in organisations and as such can be stimulated by HR professionals in order to create engagement in the organisation.

According to Wrzesniewski and Dutton (2001), job crafting consists of three types of behaviours at work. Employees may actively change the tasks at work, craft the interpersonal relationships at work, or adapt their cognitive perceptions towards their work. In the present study, we explicitly focus on job crafting behaviour aimed at changing the job characteristics. To this purpose, researchers embedded the job crafting concept into the job demands–resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Tims, Bakker, & Derks, 2013).

The JD-R model divides all job characteristics into job demands and resources. Job demands primarily relate to a psychological draining process consuming energy, whereas job resources dominantly relate to a psychological gaining process triggering high levels of energy (Bakker, Demerouti, & Euwema, 2005).

Using the JD-R conceptualisation of job crafting, one can distinguish between three forms of expansive job crafting and one form of decreasing job crafting. Expansive job crafting refers to the actions aimed at increasing the demanding aspects of a job, such as initiating new projects (i.e., seeking challenges) and the actions aimed at increasing the resourceful aspects of a job (i.e., seeking resources). Seeking resources can be further distinguished into seeking structural resources, such as acquainting oneself with new working methods and seeking social resources, such as asking for advice/feedback. Finally, decreasing job crafting refers to actions aimed at reducing hindering demands, such as avoiding colleagues who trigger a personal stress reaction. As actively reducing hindering demands appears either unrelated (Bakker, Tims, & Derks, 2012; Tims, Bakker, & Derks, 2013) or even negatively related to work engagement (Petrou et al., 2012), many scholars argue to focus mainly on the expansive types of job crafting when specifically focusing on the motivational process of job crafting (Akkermans & Tims, 2017; Vogt, Hakanen, Brauchli, Jenny, & Bauer, 2016).

3 | WORK ENGAGEMENT AND WORKAHOLISM

According to the most commonly used definition, work engagement reflects a positive, fulfilling, work-related state of mind, characterised by vigour, dedication, and absorption (Schaufeli et al., 2002). Engaged employees are highly innovative and search proactively for challenges and resources (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Petrou et al., 2012; Tims, Bakker, Derks, & Van Rhenen, 2013). Recently, studies (Van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012; Van Beek, Taris, Schaufeli, & Brenninkmeijer, 2014) have shown that the work behaviour of employees scoring high on work engagement is fuelled by an autonomous form of motivation. This means that work engagement inherently represents an intrinsic work motivation.

On the other hand, workaholism reflects the tendency to work excessively hard by being obsessed with work, which manifests itself in working compulsively (Schaufeli et al., 2009). The work motivation typically characterising workaholism is called introjected motivation, a type of motivation triggered by the adoption of external standards without fully identifying with them (Van Beek et al., 2012).

In line with the Circumflex Model of Affect (Russell, 2003), work engagement and workaholism can be considered as two different types of work-related well-being. This model assumes that human emotions can be plotted in the surface of a circle that is defined by two orthogonal axes with a pleasure dimension and an activation dimension. Each emotion is a combination of varying degrees of pleasure and activation. The two axes divide the circle into four quadrants that comprise unpleasant affective states of high or low activation and pleasant affective states of high or low activation. In this study, we focus solely on engagement (represented by high activation and high pleasure) and workaholism (represented by high activation and low pleasure).

These different states of affective well-being associate with very distinctive outcomes. Whereas work engagement relates to good health and high performances (Christian, Garza, & Slaughter, 2011), findings associate workaholism with poor health and work exhaustion (Clark, Michel, Zhdanova, Pui, & Baltes, 2016; Ng, Sorensen, & Feldman, 2007). Although previous research has gained insight in the type of motivations underlying work engagement and workaholism and their potential outcomes, findings have yet to unravel the explanatory mechanisms on how work engagement and workaholism steer their behaviour towards certain outcomes.

4 | WORK ENGAGEMENT, WORKAHOLISM, AND JOB CRAFTING

Work engagement is associated with surplus resources, providing one with sufficient energy to perform the job well (Halbesleben, Harvey, & Bolino, 2009). Employees scoring high on work engagement tend to reinvest their energy

(vigour) into their jobs, because they experience working as enjoyable and meaningful (dedication). Previous findings suggest that actively seeking for resources and challenges positively relates to work engagement (Petrou et al., 2012; Tims, Bakker, & Derks, 2013; Tims, Bakker, Derks, & Van Rhenen, 2013). In addition, longitudinal research has shown that employees who presently score high on work engagement are likely to stay engaged over time (Seppälä et al., 2009). This stable work engagement may be stimulated or even caused by a proactive style of working, continuously seeking for additional resources and challenges. Lu, Wang, Lu, Du, and Bakker (2014) found that employees who score high on work engagement actively craft their work in both physical (i.e., seeking challenges) and relational ways (i.e., seeking resources), which, in turn, creates a better person–job fit. In addition, a recent three-wave study of Tims, Derks, and Bakker (2016) confirmed that work engagement can also influence the extent to which employees express job crafting behaviours at work. Moreover, in another very recent longitudinal study, Hakanen, Peeters, and Schaufeli (2017) theorised and proved on the basis of Conservation of Resources theory (Hobfoll, 1989) that engagement predicts all four types of job crafting. Based on the previous findings showing that engagement is related to a resource-seeking and challenge-seeking behaviour, we hypothesise that engagement is positively related to seeking challenges (Hypothesis 1a), seeking structural resources (Hypothesis 1b), and seeking social resources (Hypothesis 1c).

By definition, employees scoring high on workaholism invest a lot of time and energy into their work. However, the way in which workaholism triggers employees to invest their resources is unknown. In line with Hakanen et al. (2017), we expect workaholism and work engagement partly to be differently related to job crafting. Employees scoring high on workaholism allocate an exceptional amount of their time and energy into their job by investing all of their resources into moving as quickly as possible from one goal to the other (Falvo, Visintin, Capozza, Falco, & De Carlo, 2013). This goal-reaching attitude is called locomotion and means that in order to reach a goal, employees take the actions that shorten the distance between a current and desired state, while ignoring to assess how things can go more efficient, easier, or enjoyable. In addition, employees scoring high on workaholism tend to start a new task as soon as they have completed the previous one. Findings show that employees scoring high on workaholism are anxious and suffer from irrational beliefs about what may happen when they do not reach their desired goals (Van Wijhe et al., 2013). Holding unrealistically high demands for oneself, and fearing what happens when self-set goals are not met, may motivate employees who score high on workaholism to work even harder, thereby running the risk of depleting their energy. This reasoning is in line with results from a recent meta-analysis on the correlates of workaholism of Clark et al. (2016) showing that workaholism is related to negative outcomes, such as job stress and low work performances. The meta-analyses also revealed some findings on the experienced amount of job resources, but results were mixed and called for further examination. Remarkably, no associations with any form of proactive behaviours were investigated.

Furthermore, in line with Hakanen et al. (2017), we expect that workaholism is not likely to relate to seeking social resources because workaholism associates with poor social relations at work (Ng et al., 2007), and to poor delegating habits (Porter, 1996). In contrast, Hakanen and colleagues did expect and found a positive relationship between workaholism and crafting structural resources. Because workaholics are obsessed with their work, they will be eager to further develop the capacity to attain more work-related goals. In sum, on the basis of the foregoing, we expect workaholism to be positively related to seeking challenges (Hypothesis 2a) and to seeking structural resources (Hypothesis 2a), but unrelated to seeking social resources (Hypothesis 2c).

5 | SELF-MANAGEMENT STRATEGIES

In the present article, we focus on self-management strategies as the underlying motivational mechanism of expansive job crafting. The concept of self-management is derived from the self-leadership literature, which is aimed at investigating how employees themselves achieve the self-direction and self-motivation necessary to behave and perform in desirable ways (Manz & Sims, 1980). Self-management strategies are specifically about how employees

regulate fluctuations of feelings and behaviours at work to attain desired goals. Self-management consists of self-observation, self-goal setting, self-reward, and self-punishment strategies (Houghton & Neck, 2002). Self-observation indicates one's awareness on why and when they show certain behaviours, which leads individuals to change their behaviour in line with desired outcomes. Self-goal setting contributes to goal achievement, particularly when goals are specific and challenging (Locke & Latham, 2002). Self-reward refers to behaviour reinforcing desired actions, whereas self-punishment refers to the discouragement of behaviour leading to aversive consequences.

These self-management strategies are part of a cognitive self-regulation process (Manz & Sims, 1980), aimed at obtaining or maintaining desired behaviour. Examining the usage of different strategies informs us on how employees transform their work motivation into desired behaviour. Relating self-management strategies to job crafting may explain how employees come to initiate different crafting behaviours, which provides us with a better understanding of the underlying motivational and cognitive mechanisms of job crafting.

According to the self-management theory, self-goal setting and self-observation strategies are behavioural-focused strategies (Houghton & Neck, 2002). Together, they go hand-in-hand to change and adjust certain behaviours. Self-observation is, namely, theorised to increase employee's self-awareness, which brings them to identify behaviours that should be changed, enhanced, or eliminated (Houghton & Neck, 2002). Based on this assessment, employees can set new goals in order to further improve their working situation (Manz & Sims, 1980). In the present study, we argue that there are two reasons why employees scoring high on work engagement are naturally inclined to make use of self-goal setting and observation strategies. First of all, studies show that employees scoring high on work engagement are highly driven to contribute to the organisational goals and are willing to invest extra time and effort into achieving these goals (Tims, Bakker, & Derks, 2013). As such, it seems plausible that employees scoring high on work engagement already naturally make use of goal-setting strategies. Secondly, studies show that engagement associates positively with mindfulness, which is a representation of how attentive and openly observing people are (Leroy, Anseel, Dimitrova, & Sels, 2013). This means that employees scoring high on engagement naturally observe and attend to themselves and others around them. Taken together, based on the previous studies showing that employees scoring high on work engagement engage in both observing and goal-setting behaviour, we predict that by observing and setting goals, engaged employees are stimulated to proactively craft their jobs. We thus predict that self-goal setting mediates the relationship between work engagement and seeking challenges (Hypothesis 3a), work engagement and seeking structural resources (Hypothesis 3b), as well as between work engagement and seeking social resources (Hypothesis 3c). Similarly, we predict that self-observation mediates the relationship between work engagement and seeking challenge (Hypothesis 3d), work engagement and seeking structural resources (Hypothesis 3e), and work engagement and seeking social resources (Hypothesis 3f).

Also belonging to the behavioural-focused strategies are the self-reward and self-punishment strategies (Houghton & Neck, 2002). According to Manz and Sims (1980), these strategies aim to reinforce or eliminate certain behaviours based on external incentives. However, engaged employees most likely do not make use of any external reward or punishment strategy, because engaged employees are known for their intrinsic motivation to work (Van Beek et al., 2012). Especially, because previous studies have shown that external incentives tend to cancel out the motivating effect of intrinsic motivation (Deci, 1972), it is unlikely that intrinsically motivated employees will also motivate themselves using external self-management strategies. As such, we do not expect that work engagement relates to the use of external incentives. Hence, we do not expect a relationship between engagement and self-reward nor between engagement and self-punishment.

In contrast, with respect to workaholism, we expect that employees scoring high on workaholism use different self-management strategies than employees scoring high on work engagement. Although, theoretically, self-goal setting and self-observation go hand-in-hand in establishing desired behavioural changes (Houghton & Neck, 2002), we expect workaholism only to relate positively to self-goal setting strategies. Employees who score high on workaholism devote an excessive amount of their resources to move as quickly as possible from goal to goal without attending to the means on how to achieve them (Falvo et al., 2013). The way in which these employees engage in goal-reaching behaviour (i.e., locomotion) is known to be opposite from observation strategies (Kruglanski et al., 2000). We

therefore expect that the way in which employees scoring high on workaholism engage in goal-setting cancels out the observing strategy. We expect that only self-goal setting mediates the relationship between workaholism and seeking challenges (Hypothesis 4a) and workaholism and seeking structural resources (Hypothesis 4b).

Moreover, in contrast to work engagement, workaholism is mainly motivated by external incentives (i.e., introjected motivation; Van Beek et al., 2012). Employees scoring high on workaholism are pushed by a strong need to prove themselves (Van Wijhe et al., 2013). However, because their performances are not necessarily high (Clark et al., 2016), while they do desire to deliver extremely high performances and because no matter how much they work, a gap between the real and the ideal situation can result in negative self-evaluations. According to Manz and Sims (1980), these self-evaluations may be the starting point for self-punishment. Hence, we expect self-punishment to mediate the relationship between workaholism and seeking challenges (Hypothesis 5a), and between workaholism and seeking structural resources (Hypothesis 5b). Finally, as workaholism associates strongly with negative affect (Van Wijhe et al., 2013) and feelings of failure, we do not expect employees scoring high on workaholism to put effort in rewarding themselves. As such, no relationship is expected between workaholism and self-reward.

6 | METHODS

6.1 | Participants and procedure

Participants were asked to fill out a questionnaire twice: The predictors (work engagement and workaholism) and mediators (self-management) were measured at Time 1, and the dependent variable (job crafting) at Time 2. Due to organisational restrictions and in order to warrant an acceptable survey response, we had to make the questionnaire as brief as possible, and therefore, we were only allowed to measure job crafting at T2. This so-called half-longitudinal design (Cole & Maxwell, 2003) still diminishes the risk of common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012).

Data were collected within a health care organisation in the Netherlands (N = 155) and a convenience sample (N = 217). From the health care organisation, 155 participants out of the 626 invited employees completed the online survey, yielding a response of 25%. In addition to the participants from the health care organisation, we approached participants working in a wide range of different sectors and organisations using social media, such as LinkedIn and Facebook pages. The convenience sample thus consists of a general mix of all sorts of working employees.

We merged the two data sets in further analyses as there were no significant mean level differences between the two groups on the study variables. In addition, testing the measurement models (see below) showed no differences between the two groups. Respondents consisted of 266 woman (71%) and 106 men (29%) with a mean age of 40.75 years (SD = 13.55). On average, contract hours were 32 (SD = 13.02) hours a week, the average function tenure was 8.75 (SD = 9.74) years, and the average organisational tenure was 11.16 (SD = 11.11) years. Of all participants, 2% held a high school degree, 11% a vocational training, and 85% of the sample finished higher education. Apart from the 155 participants in the health care organisation, 20% of the convenience sample was also employed within the health care. Furthermore, many participants worked in the research and educational sector (22%), the cultural sector (10%), governmental agencies (6%), and 13% reported to be self-employed.

Of the 372 participants who responded to the first survey, 287 participants also responded to the follow-up questionnaire 3 months later, yielding a response rate of 77% for the follow-up (i.e., 68% response rate for the health care sample and 83% for the convenience sample). In order to examine the differences between our final sample at T2 (N = 287) and the dropouts (N = 85), we performed a multivariate analysis of variance on all study variables. Results revealed that the final participants were older than the dropouts (37.26 versus 41.77 years; F (1,368) = 7.36, p < .05) and slightly more educated (3.02 versus 3.38; F (1,368) = 7.22, p < .05).

6.2 | Measures

"Workaholism" was measured with the Dutch Work Addiction Scale (Schaufeli et al., 2009; α = .80), which consists of Working Excessively (five items, e.g., "*I find myself continuing working, after my colleagues have called it quits*"; α = .70) and Working Compulsively (five items, e.g., "*I feel that there's something inside me that drives me to work hard*"; α = .75). Answers could be given on a scale ranging from 1 = *never* to 4 = *always*.

"Work engagement" was measured using the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006; α = .94) consisting of Vigour (three items, e.g., "*At my work, I feel strong and vigorous*"; α = .88), Dedication (three items, e.g., "*I am enthusiastic about my job*"; α = .91), and Absorption (three items, e.g., "*I am immersed in my work*"; α = .83). Answers could be given on a scale ranging from 0 = *never* to 6 = *always*.

"Job crafting" was measured using the items of the three expansive job crafting subscales from the Job Crafting Questionnaire of Tims, Bakker, and Derks (2012). We measured seeking challenges (four items, e.g., "*I ask for more responsibilities*"; α = .83) and seeking resources (five items for social resource seeking, "*I ask others for feedback on my job performance*" and five items for structural resource seeking, "*I try to develop my capabilities*"; α = .88). Answers could be given on a scale ranging from 1 = *never* to 5 = *very often*.

"Self-management" was measured using items obtained from the self-leadership questionnaire (Houghton & Neck, 2002) representing self-goal setting (three items, e.g., "*I work towards specific goals, I have set for myself*"; α = .83), self-reward (three items, e.g., "*When I do an assignment well, I like to treat myself to something or activity I especially enjoy*"; α = .93), self-punishment (four items, e.g., "*I feel guilt when I perform a task poorly*"; α = .83), and self-observation (four items, e.g., "*I usually am aware of how well I'm doing as I perform an activity*"; α = .81). Answers could be given on a scale ranging from 0 = *completely disagree* to 7 = *completely agree*. Confirmatory factor analyses showed that the a priori hypothesised four-factor structure revealed a good fit with the data: $\chi^2(142) = 345.696$, CFI = .92, IFI = .89, and RMSEA = .076, and fitted much better than the one-factor model in which all items loaded on one factor: $\chi^2(56) = 1470.621$, CFI = .46, IFI = .44, and RMSEA = .163.

6.3 | Statistical analyses

To test the hypotheses, we employed structural equation modelling techniques using AMOS 18.0 statistical software (Arbuckle, 2009). Because testing the whole model at once showed a suppressor effect of self-goal setting on the self-observation strategy, thereby creating negative variance for the self-observation strategy, we decided to test the four mediation paths separately in four models (i.e., phantom modelling technique makes it possible to test separate mediation effects in a model with multiple mediation paths, Macho & Ledermann, 2011).

In each model, we included both work engagement and workaholism as independent variables, one self-management strategy (self-goal setting, self-observation, self-reward, or self-punishment) as mediator, and the job crafting behaviours (seeking challenges, social resources, and structural resources) as dependent variables. The factor loadings for all our latent variables ranged from .61 to .91, which is, according to Comrey and Lee (2013), very good to excellent. We used bootstrap analyses with 2000 iterations for the direct and mediation effects to increase power.

Before testing the structural models, we investigated each measurement model. Fit measures were obtained using the χ^2 test statistic, Comparative Fit Index (CFI), Bollen's Incremental Fit Index (IFI), and the Root Mean Square Error of Approximation (RMSEA). Values >.90 for IFI and CFI represent an acceptable fit model, and values close to .95 a good model fit. For the RMSEA, values <.10 are considered acceptable, and values equal to or less than .08 indicate a good model fit (Kline, 2005).

In the measurement models, the latent variables self-goal setting, self-observation, self-reward, self-punishment, seeking challenges, and social and structural resources were indicated by their respective items. The latent variable work engagement was modelled using three indicators (i.e., vigour, dedication, and absorption). Confirmatory factor analyses showed that the hypothesised three factor model in which three items loaded on the three separate subdimensions of work engagement revealed a good fit except for the RMSEA: $\chi^2(23) = 183{,}265$, CFI = .94, IFI = .94,

and RMSEA = .156. However, the three-factor solution fitted much better to the data than the one-factor model in which nine items loaded on one work engagement factor ($\chi^2(27) = 614.430$, CFI = .77, IFI = .77, and RMSEA = .276). According to Kenny, Kaniskan, and McCoach (2011), too small number of degrees of freedom (df) or too small sample size can produce a too high RMSEA, which falsely indicates a poor fitting model. We assume that, also in our study, the relatively small number of df may have caused the high RMSEA. Moreover, in several other studies, the RMSEA of the three-factor structure of work engagement appeared also to be relatively high (e.g., Balducci, Fraccaroli, & Schaufeli, 2010; Hallberg & Schaufeli, 2006). Apparently, this seems to be a more frequent issue, but like in the other studies, we still decided to use the theoretically based three-factor solution of work engagement.

The latent construct of workaholism was modelled according to the two subdimensions of working excessively (i.e., working frantically and working long hours) and similarly two subdimensions of working compulsively (obsessive work drive and unease if not working) following previous research (Rantanen et al., 2015). We considered the four-factor structure the best option because in SEM, using only two indicators is not optimal and causes "not positive definitive" problems. Confirmatory factor analyses showed that the four-factor structure revealed a good fit with the data: $\chi^2(29) = 50.442$, CFI = .97, IFI = .97, and RMSEA = .051, and fitted better than the one factor model in which all items loaded on one factor: $\chi^2(35) = 126.750$, CFI = .85, IFI = .85, and RMSEA = .096.

In order to determine whether it was statistically justified to merge the two samples, we compared the constrained versus the unconstrained measurement models. The unconstrained measurement models did not fit the data better than the corresponding constrained models (Measurement Models 1–4: $\chi^2(2) = 1.558–15.835$, ns), indicating that the factor loadings were group invariant, lending further support for merging the two data sets. Moreover, all Measurement Models revealed a good fit with the data (MM1–4: $\chi^2(237–284) = 503–518$, CFI = .91–.93, IFI = .91–.93, and RMSEA = .063–.064), showing that the data fit the proposed model structure well.

7 | RESULTS

The means, standard deviations, and Pearson correlations of all the study variables are presented in Table 1.

7.1 | Structural models

The fit indices and model comparisons for all four models (four self-management strategies as mediators) are shown in Table 2. All fit measures revealed a relative good fit with the data (Table 2). Next, the results comparing fully versus partially mediated models are presented. Results on the mediation analyses revealed that all partially mediated models fitted to the data significantly better than the fully mediated models ($\Delta\chi^2$ for all models $p < .001$), indicating that the self-management variables accounted significantly for some, but not all the variation of the relationship between work engagement, workaholism, and job crafting.

7.2 | Testing direct and mediation effects

As a final test of the hypotheses, we conducted bootstrap analyses to investigate the significance of the direct and mediation effects in our models (see Figures 1–4). In all four models, the association between work engagement and seeking challenges$_{T2}$ (H1a; β = .29–.38, *SE* = .05–.06, $p < .001$), seeking structural resources$_{T2}$ (H1b; β = .25–.44, *SE* = .03–.04, $p < .001$), and seeking social resources$_{T2}$ (H1c; β = .22–.32, *SE* = .03–.04, $p < .001$) were positive, thereby supporting Hypotheses 1a, 1b, and 1c. In addition, the relationships between workaholism and seeking challenges$_{T2}$ (H2a; β = .25–.38, *SE* = .11–.17, $p = .001–.004$), seeking structural resources$_{T2}$ (H2b; β = .15–.22, *SE* = .07–.10, $p = .001–.010$, and M_2 $p = .380$), and seeking social resources$_{T2}$ (H2c; β = .23–.30, *SE* = .07–.09, $p = .001–.004$) were also positive, supporting Hypotheses 2a and 2b, but not providing support for Hypothesis 2c.

Moreover, the relationship between work engagement and seeking challenges$_{T2}$ was mediated through self-goal setting (β = .08, *SE* = .04, $p = .010$) and self-observation (β = .03, *SE* = .02, $p = .030$). The relationship between work

TABLE 1 Means, standard deviations, and Pearson correlations between the study variables (N = 287)

Variabelen	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
T1 November 2014																	
1. Work engagement	5.21	1.11	–														
2. Vigour	5.29	1.10	.89**	–													
3. Dedication	5.37	1.29	.94**	.75**	–												
4. Absorption	5.00	1.24	.94**	.75**	.84**	–											
5. Workaholism	2.26	.49	−.06	−.11	−.05	−.01	–										
6. Excessive working	2.42	.51	.09	.20**	.09	.14*	.85**	–									
7. Compulsive working	2.11	.64	−.17**	−.20**	−.16**	−.12*	.89**	.52**	–								
8. Self-goal setting	5.09	1.51	.27**	.21**	.26**	.27**	.25**	.29**	.16*	–							
9. Self-observing	5.43	.86	.16**	.15*	.14*	.15*	.11	.12*	.08	.68**	–						
10. Self-reward	3.04	1.57	−.05	.02	.04	.07	.07	.03	.09	.28**	.24**	–					
11. Self- punishment	4.93	1.35	.04	−.01	−.04	.02	.46**	.33**	.46**	.24**	.37**	.18**	–				
T2 March 2015																	
Job crafting variables																	
12. Challenge seeking	3.12	.86	.37**	.29**	.35**	.36**	.22**	.30**	.11	.33**	.22**	.01	.08	–			
13. Structural resources	3.74	.76	.33**	.22**	.35**	.34**	.15**	.19**	.09	.39**	.22**	.04	.01	.66**	–		
14. Social resources	2.91	.83	.21**	.13*	.21**	.22**	.24**	.21**	.21**	.27**	.22**	.15*	.17**	.42**	.56**	–	
Control variables																	
15. Gender[2]	–	–	−.10	−.13*	−.04	−.12*	−.00	.02	−.02	−.01	−.00	.03	−.04	.07	−.02	−.08	–
16. Age	40.75	13.55	.14*	.15*	.11	.12*	−.16**	−.09	−.16**	−.05	−.10	−.15*	−.23**	−.08	−.09	−.16**	.15*

Note:

*p < .05,

**p < .01.

TABLE 2 Fit statistics for the study Models 1–4 with work engagement and workaholism as the predictors, expansive job crafting dimensions as the dependent variables, and each self-management strategy as a mediator

Model	Model description	X^2	df	CFI	IFI	TLI	RMSEA	Model comp.	$\Delta\chi^2$	Δdf	Sign.
M1	Management strategy: Self-goal setting							Partial vs. full			
	Partially mediation model	458,368	(237)	.94	.93	.91	.058				
	Full mediation model	501,279	(243)	.92	.92	.90	.063		42,912	6	$p < .001^{***}$
M2	Management strategy: Self observation							Partial vs. full			
	Partially mediation model	614,923	(284)	.91	.96	.95	.063				
	Full mediation model	680,134	(290)	.89	.83	.93	.068		65,211	6	$p < .001^{***}$
M3	Management strategy: Self reward							Partial vs. full			
	Partially mediation model	444,078	(232)	.94	.94	.93	.057				
	Full mediation model	533,211	(238)	.92	.92	.91	.066		89,133	6	$p < .001^{***}$
M4	Management strategy: Self punishment							Partial vs full			
	Partially mediation model	477,493	(232)	.93	.93	.92	.061				
	Full mediation model	561,569	(238)	.91	.91	.90	.069		84,076	6	$p < .001^{***}$

Note. X^2 = The X^2 test statistic; CFI = the Comparative Fit Index; IFI = Bollen's Incremental Fit Index; RMSEA = the Root Mean Square Error of Approximation; Model comp. = which models are compared to each other; $\Delta\chi^2$ = the X^2 test comparison.

$^{*}p < .05$,

$^{**}p < .01$,

$^{***}p < .001$.

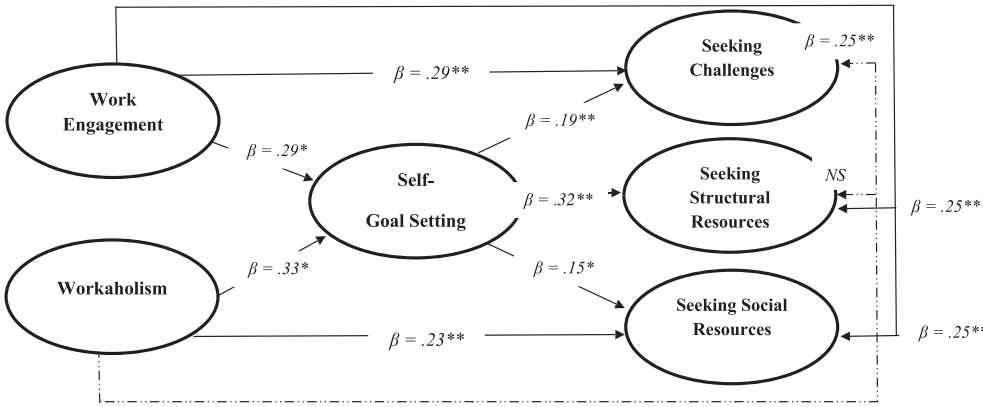

FIGURE 1 The significant paths of the hypothesised self-goal setting model, ** $p < .01$, * $p < .05$. Note. In order to enhance the comprehensibility of the figure, we used different line structures

engagement and seeking structural resources$_{T2}$ (β = .11, *SE* = .04, *p* = .039) and between work engagement and social resources$_{T2}$ (β = .07, *SE* = .04, *p* = .010) was also mediated through self-goal setting. In addition, self-observation mediated the relationship between work engagement and seeking structural resources$_{T2}$ (β = .03, *SE* = .02, *p* = .010) and seeking social resources$_{T2}$ (β = .02, *SE* = .017, *p* = .010). Hence, it can be concluded that Hypotheses 3a–3f were fully supported by the data. As expected, the relationships between work engagement and self-punishment and self-reward were insignificant ($p > .05$; M_3, M_4).

The results testing Hypotheses 4 on the mediation effects between workaholism and seeking challenges$_{T2}$ and seeking structural resources$_{T2}$ are presented in Figures 1–4. We predicted that the relationship between workaholism and seeking challenges$_{T2}$ would be mediated by self-goal setting (and not by self-observation). Indeed, the

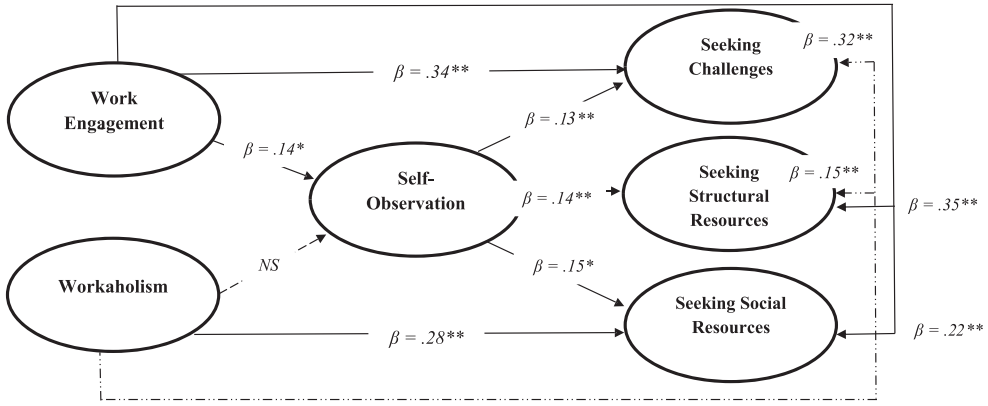

FIGURE 2 The significant paths of the hypothesised self-observation model, ** $p < .01$, * $p < .05$. Note. In order to enhance the comprehensibility of the figure, we used different line structures

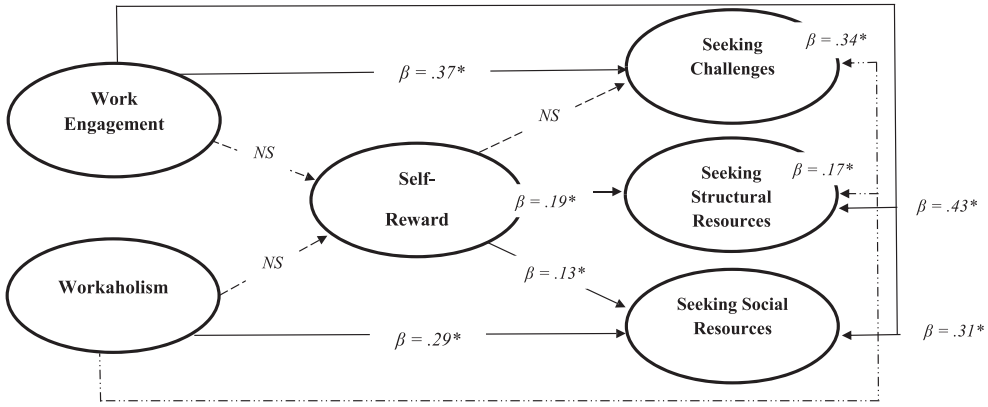

FIGURE 3 The significant paths of the hypothesised self-reward model, ** $p < .01$, * $p < .05$. Note. In order to enhance the comprehensibility of the figure, we used different line structures

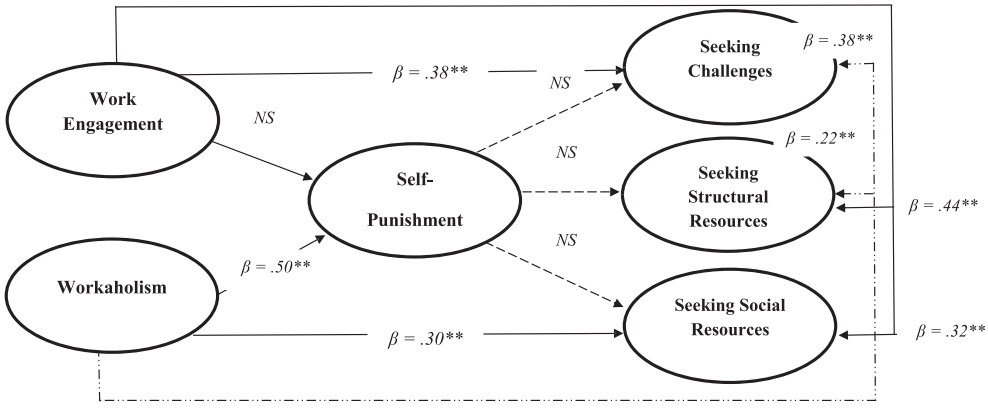

FIGURE 4 The significant paths of the hypothesised self-punishment model, ** $p < .01$, * $p < .05$. Note. In order to enhance the comprehensibility of the figure, we used different line structures

relationships between workaholism and seeking challenges$_{T2}$ (β = .10, *SE* = .04, *p* = .010) and workaholism and seeking structural resources$_{T2}$ (β = .12, *SE* = .04, *p* = .010) were mediated through self-goal setting. However, there was no relationship between workaholism and self-observation (*p* > .05; M_2). Taken together, results support Hypotheses 4. Unexpectedly, analyses also revealed that the relationship between workaholism and seeking social resources$_{T2}$ was mediated by self-goal setting (β = .07, *SE* = .03, *p* = .010).

Next, we tested whether the relationship between workaholism and seeking challenges$_{T2}$ was mediated by self-punishment (Hypotheses 5). Although results revealed a strong and significant association between workaholism and self-punishment (β = .50, *SE* = .22, *p* < .001), we did not find a mediation effect from self-punishment (*p* > .05). Thus, results are not supporting Hypotheses 5.

Finally, we included gender as a covariate in all models, which did not change the conclusions on our hypotheses. However, results did reveal a significant relation between gender and challenge seeking (β = .11–14, *SE* = .05, *p* = .016–.046) showing that on average, males sought slightly more challenges (*M* = 3.37) as compared to females (*M* = 3.12). No significant relations were found between gender and the two types of resource seeking.

8 | DISCUSSION

The main purpose of the present study was to investigate the role of work engagement and workaholism regarding the use of different self-management strategies and job crafting behaviours. Theoretically, we grounded the hypotheses in the job demands–resources model and tested them in a combined sample using a half-longitudinal design (Cole & Maxwell, 2003). We predicted that work engagement would associate with three forms of expansive job crafting, seeking challenges, structural and social resources, and that these relationships would be mediated through two self-management strategies: self-goal setting and self-observation. In addition, we predicted that workaholism would associate with seeking challenges and seeking structural resources and that these relationships are mediated by two self-management strategies: self-goal setting and self-punishment. In doing so, we aimed at contributing to a better understanding of how highly—but differently—motivated employees ultimately can contribute or discount to the competitive advantage of organisations and how new HRM strategies, such as investing in a job crafting climate, can be helpful in this matter.

In line with our expectations, we found that work engagement indeed related positively to seeking challenges and both types of seeking resources and that workaholism related positively to seeking challenges and seeking structural resources. In contrast to our expectations, we found that workaholism was also positively related to seeking social resources. Furthermore, as expected, we found that the relationships between work engagement and all job crafting behaviours were mediated through self-goal setting and self-observation, whereas the relationships of workaholism with seeking challenges and seeking structural resources were only mediated through self-goal setting. Moreover, self-goal setting unexpectedly mediated the association between workaholism and seeking social resources. In addition, we found a remarkably strong association between workaholism and self-punishment, whereas, in contrast to our expectations, self-punishment was not related to seeking challenges. This means that the relationship between workaholism and seeking challenges was not mediated by self-punishment. Altogether, our findings suggest that work engagement and workaholism both relate to expansive job crafting. In both cases, self-goal setting operates as a mediating process. The main difference between workaholism and work engagement was that only work engagement was related to self-observation, whereas workaholism related to self-punishment.

8.1 | Work engagement and job crafting

In most previous studies on the association between job crafting and work engagement, it was hypothesised and found that engagement is a consequence of job crafting (Petrou et al., 2012, Tims, Bakker, & Derks, 2013, Tims, Bakker, Derks, & Van Rhenen, 2013). The present findings add to this that work engagement can also be an

antecedent of job crafting behaviours. This is in line with a growing body of evidence showing that the link between work engagement and job crafting is a plausible link (Hakanen et al., 2017; Lu et al., 2014; Tims et al., 2016). Apparently, actively increasing the resources and challenges in one's job not only stimulates employees to become more work engaged, but work engagement as a positive high-energy state also stimulates challenge-seeking and resource-seeking behaviour. Similarly, a recent study by Hakanen et al. (2017) found that work engagement predicts expansive job crafting. The fact that work engagement and job crafting may reciprocally influence each other may play an important role on how employees stay engaged over a longer period of time (Seppälä et al., 2009). Work engagement stimulates employees to craft extra resources and challenges in their jobs, which, in turn, boosts their work engagement. As such, it is very likely that work engagement and job crafting in fact may function as a gain spiral.

8.2 | Workaholism and job crafting

Another contribution of the present study concerns the findings of the relationships between workaholism and expansive job crafting. To our knowledge, this is the second study examining workaholism in relation to job crafting. The earlier study of Hakanen et al. (2017) found a positive relationship between workaholism and seeking challenges and structural resources. The present study replicated these findings but added also one unexpected finding, namely, a positive relationship between workaholism and seeking social resources. Perhaps, the often reported lack of social resources associated with workaholism (Schaufeli et al., 2008; 2009) could also explain for the positive relationship between workaholism and seeking social resources, as it points towards an obvious need of social resources for workaholics. Hence, for workaholics to be able to work extra hard, they may have to proactively seek for additional social resources. Another possible explanation could be that workaholism is particularly related to one specific source of social resources, namely, supervisor support. We base this explanation on the meta-analysis of Clark et al. (2016), which showed a positive relation of workaholism with supervisory support. Workaholics may particularly seek for feedback and advice from their supervisor, which, according to Clark and colleagues, may even further facilitate a workaholic's excessive involvement with work.

8.3 | Job crafting through self-management strategies

In order to unravel the job crafting mechanism, we scrutinised on how work engagement and workaholism relate to self-management behaviours. According to our predictions, we found that work engagement stimulates employees to set goals for themselves at work but also observe their own behaviours and emotions, which brings them to seek for both challenges and resources. On the other hand, the results revealed that workaholism does not trigger behaviour aimed at observing oneself in order to assess what a healthy and desirable situation requires. Instead, workaholism strongly triggers goal-setting behaviour, which, in turn, associates with challenge- and resource-seeking behaviour.

The finding that workaholism transforms only into goal-focused strategies is in line with earlier findings that workaholics tend to focus strongly on moving as quickly as possible from one goal to another (Falvo et al., 2013). The way in which workaholics engage in this goal-reaching behaviour (i.e., locomotion) is known to be opposite from assessment (Kruglanski et al., 2000). Assessment refers to carefully and critically assessing goals and considering the means to achieve them. Hence, the strong relationship of workaholism with goal-setting strategy, and not self-observing behaviour, is in line with the findings that workaholics move from goal to goal in a locomotion, a strategy that prevents them from assessing and observing themselves and their surroundings.

Finally, the present study showed that work engagement was not associated with self-reward nor with self-punishment, indicating that engaged employees indeed not make use of an external push to work hard. Instead, we found a remarkably strong relationship between workaholism and self-punishment, whereas self-punishment did not mediate the relationship between workaholism and challenge seeking. This could mean that, although workaholics use self-punishment to a great extent, it does not stimulate workaholics to seek for more challenges or resources. The

finding that workaholism relates so strongly to self-punishment, although engagement does not relate to self-punishment nor to self-reward, may explain for prior findings that workaholism relates to negative affect, whereas work engaged employees report to experience more positive affect (Van Wijhe, Peeters, Schaufeli, & Van den Hout, 2011).

In sum, to our knowledge, this is the first study examining how work engagement and workaholism relate to self-management strategies, forwarding our understanding on behavioural differences between work engagement and workaholism. The present results show that not all self-management strategies are used to stimulate job crafting. Work engagement relates to both self-goal setting and self-observation, which, in turn, associates with seeking new challenges and resources. On the other hand, workaholism only relates to self-goal setting strategies, which also relates to challenge seeking and resource seeking. The strategies self-reward and self-punishment do not seem to contribute to any type of job crafting behaviours.

8.4 | Limitations

Some limitations need to be noted. First, we used self-reports to assess all study variables, which may have inflated the relationships due to common method variance. In order to reduce method bias, we collected answers anonymously at two different moments, assured the respondents that there were no right or wrong answers, and used different scale anchors (Podsakoff et al., 2012). Second, due to time limitation, and to warrant an acceptable response, we were able to measure the dependent variables only at T2. Ideally, all variables are measured at both time points in order to control for other effects of T1. Future research may benefit from a larger time lag and a full panel design. Third, the response rate was disappointing, especially in the health care subsample. As mentioned by all employees during interviews, this was probably caused by the extreme high workload. However, it is noteworthy that the response rate for the follow-up questionnaire can be considered good (77%). Fourth and final, the sample consisted of slightly higher educated and older participants in the final study sample as compared to the baseline sample. Future research may test whether similar relationships exist in younger and lower educated employees.

8.5 | Practical implications and directions for future research

Current results may help HR professionals to motivate employees scoring high on workaholism to apply more self-observation techniques. One option could be a mindfulness training, which has been proven effective in enhancing awareness of moment-to-moment experiences providing one with a greater awareness, reduction of negative affect, and an improved vitality (Good et al., 2015). Mindfulness stimulates observing behaviour, which, in turn, may stimulate employees scoring high on workaholism to become aware of negative affect and the cause of it.

Furthermore, this study provides relevant insight for strategic HRM policy makers. Being important agents for organisational change, it is essential to be aware of the added value of work engagement and the potential risks of workaholism for flourishing organisations. The present study helps in this respect because it demonstrates and explains that these different well-being states steer different self-management behaviours, which ultimately lead to different job crafting strategies. As our findings suggest, the higher the scores on work engagement, the more attentive employees are to their own feelings and surroundings, which may lead them to assess more accurately which behaviour is required in order to attain a desired organisational outcome. On the other hand, the higher the scores on workaholism, the more employees seem to lack such attentiveness, which may explain for previously found association between workaholism and negative organisational outcomes (Clark et al., 2016). Future studies could establish how different work motivations precisely influence organisational outcomes by scrutinising on behaviours such as job crafting and self-management strategies, preferably using longitudinal designs.

In addition, we argue that it might be interesting for HRM professionals to explicitly consider job crafting as a strategy to invest in. Especially, because research suggests that job crafting can contribute to a better person–job fit (Kooij, Van Woerkom, Wilkenloh, Dorenbosch, & Denissen, 2017), to more successful ageing at work (Kooij, Tims,

& Kanfer, 2015), higher work performances (Tims, Bakker, Derks, & Van Rhenen, 2013), and to the development of career competencies (Plomp, Tims, Khapova, Jansen, & Bakker, 2016). Also, with respect to maximising the effectiveness of training transfers, it may be valuable to know how different employee types, such as work engaged or workaholic employees, manage themselves through cognitive strategies towards craft behaviours. With this awareness, HR practitioners may be encouraged to adjust their training to the target audience, and as such, enhance the training transfer.

All in all, the present study revealed that work engagement and workaholism both stimulate employees to engage in job crafting by expanding their social and structural resources, but by employing different self-management strategies.

CONFLICT OF INTEREST

There are no conflicts of interest to declare.

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