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Job Crafting and Extra-role Behavior:

The Role of Work Engagement and Flourishing

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Abstract

This study investigates whether crafting of job demands and resources relates positively to

extra-role behavior (i.e. contextual performance and creativity) through work engagement

and flourishing. We collected data from 294 employees and their supervisors regarding

employees' contextual performance and creativity. Results show that seeking resources had a

positive indirect relationship with contextual performance through work engagement, and

with creativity through work engagement and flourishing. Reducing demands had negative

indirect relationships with both contextual performance and creativity through work

engagement. We conclude that particularly seeking resources has important implications for

extra-role behavior and discuss the practical implications of these findings.

Keywords: Contextual performance; Creativity; Employee engagement; Flourishing; Job

crafting

Job Crafting and Extra-role Behavior:

The Role of Work engagement and Flourishing

In the present knowledge economy, the external environment is rapidly evolving and work roles are less clearly defined than in the past. Therefore, organizations increasingly rely on their employees to fill the gap between explicit job requirements and the emergent behaviors necessary for organizations to remain competitive. Extra-role behaviors such as employee creativity (i.e. novelty of ideas and solutions) and contextual performance (i.e. individual behaviors that support the social environment in which task behaviors are performed) may enhance an organization's responsiveness and adaptability (Amabile 1996; Oldham & Cummings, 1996; LePine, Hanson, Borman, & Motowidlo, 2001). Such behaviors are suggested to be an outcome of job design interventions (Farr, 1990). However, top-down job design interventions are generally found to be less effective than researchers and practitioners hope (Kompier, Cooper, & Geurts, 2000; Nielsen, Taris, & Cox, 2010), perhaps because they follow the philosophy of 'one size fits all' rather than the philosophy of 'which size fits you?'

In the present paper, we argue that facilitating bottom-up job redesign in the form of employee job crafting may create conditions that stimulate employees to voluntarily 'do more than is required'. The reason for this is that proactive behavior enhances confidence to behave in novel ways (Hornung & Rousseau, 2007). Moreover, when employees craft their job and work environment, this may result in an increased person-environment fit (Tims & Bakker, 2010). Proactive employees mobilize the resources they need to feel well, be motivated, and excel in their jobs (*cf*. Tims, Bakker & Derks, 2012).

Specifically, we propose that employees' efforts to maximize resources by crafting their work characteristics (Demerouti, 2014) will indirectly contribute to extra-role behavior. Using conservation of resources theory (Hobfoll, 2002), we argue that employees who create abundant resources will be engaged in their work and flourish in their life. Work engagement

represents a positive fulfilling state of mind that is characterized by vigor, dedication and absorption (Schaufeli & Bakker, 2004). Flourishing represents a more general conceptualization of psychological well-being, characterized by individuals who perceive that their life is going well if they feel good and function effectively (Diener et al., 2009). By including both work engagement and flourishing as predictors of extra-role behaviors, we will be able to uncover whether individuals show such extra-role behaviors because they are highly motivated or because they feel good.

We focus on extra-role behavior in the form of creativity and contextual performance because both behaviors (1) are not included in formal job requirements, (2) are suggested to be outcomes of abundant resources (triggered by crafting), and (3) can be observed by supervisors and thus be measured without impression management concerns. In this way, the present study contributes to the literature by examining: (a) whether resources generated by individuals' proactive, job crafting behaviors are related to observable positive behaviors that are not explicitly required by their jobs; (b) whether individuals do more than expected because they are highly motivated (i.e. engaged in their work) or because they feel good (i.e. flourishing). Whereas the relationship between job crafting and work engagement (e.g. Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012) as well as between work engagement and extra-role behavior (e.g. Bakker & Xanthopoulou, 2013) has been shown in previous studies, the indirect relationship of job crafting with supervisor-rated extra-role behavior via work engagement has yet not been established. Regarding flourishing, we still lack knowledge on its relationship with proactive and supervisor-rated extra-role behavior. Uncovering such beneficial effects of job crafting can explain why employee-initiated adjustments of work may be beneficial for employees and organizations, which has both theoretical and practical implications.

Theoretical Background

Creativity and contextual performance represent two forms of voluntary, extra-role behaviors in the sense that they involve engaging in task-related behaviors at a level that is beyond minimally required or generally expected levels. According to Podsakoff, MacKenzie, Paine, and Bachrach (2000) both concepts share the idea that the employee is going "above and beyond" the call of duty. Creativity refers to the production of new and useful ideas or problem solutions (Amabile et al., 2005). It generally refers to both the process and the product of idea generation or problem solving. Creativity can range from suggestions for incremental adaptations in work procedures to radical breakthroughs in the development of new products (Mumford & Gustafson, 1988; Shalley et al., 2004). Contextual performance is defined as work behaviors and activities that are not necessarily related to work tasks but that contribute to the social and psychological aspects of the organization (Borman & Motowidlo, 1993). Contextual performance contributes to organizational effectiveness, and "includes volunteering to carry out task activities that are not formally part of the job and helping and cooperating with others in the organization to get tasks accomplished" (Borman & Motowidlo, 1997, p. 100). Contextual performance can be directed toward the organization at large and towards individuals (Dalal, 2005; Ilies, Nahrgang, & Morgeson, 2007). Employees are generally suggested to show extra-role behaviors when they are highly motivated (Podsakoff et al., 2000); therefore, resources come at play.

We argue that the extent to which employees engage in these extra-role behaviors will be related to a process in which they create and invest resources of their environment. According to Hobfoll (2002), individuals are constantly striving to maximize and protect resources – objects, conditions, personal characteristics, and energies that are either valued in their own right, or act as a means to obtain valued objectives. Job resources can be provided to the employee, for instance, through top-down approaches (e.g., support and feedback from the supervisor). However, job resources can also be created or mobilized by the individual

employee, for example, through a bottom-up approach such as job crafting (e.g., by asking for support and feedback from the supervisor). This is also in line with the suggestions of Dawis and Lofquist (1984) that individuals use strategies to increase correspondence between their environment (so-called reinforcers like rewards, colleagues, management) and their needs in order to increase fit. Having resources in the areas of one's goals motivates employees and makes them feel happy (Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Diener, 2000; Hackman & Oldham, 1980). When relevant job resources are available, employees' level of motivation and well-being may be fostered, and these may enhance the likelihood of taking advantage of the current job resources and being able to create new ones. Indeed, employees are suggested to invest resources to build further resources; Hobfoll (2002) calls this 'gain spirals' or 'resource caravans'. Following this logic, we suggest that engaged and flourishing employees will have abundant resources to invest in their job and thus show behaviors that are not formally required by their job. Thus, employees with access to resources will exhibit enthusiasm in their job and behave in ways that benefit the organization and/or other employees (Dalal, 2005). We will now explain why job crafting is related to a resources-generation process.

Job Crafting, Work Engagement, and Flourishing

Job crafting represents actions employees take to alter the physical task boundaries of a job (i.e., type or number of activities), the cognitive task boundaries of a job (i.e., how one sees the job), and the relational boundaries of a job (i.e., whom one interacts with at work) (Wrzesniewski & Dutton, 2001), with the goal of becoming more engaged, satisfied, resilient, and thriving at work (Berg, Dutton & Wrzesniewski, 2008). Job crafting involves both active and reactive behaviors through which employees increase fit with their environment by changing it (*cf*. Dawis & Lofquist, 1984; Eggerth, 2008; Tims & Bakker, 2010). Although Wrzesniewski and Dutton (2001, p. 181) define job crafting as "everyday" behavior, Lyons (2008) found that on average only 1.5 crafting episodes occur *per year* using their

conceptualization which is far from daily behavior. This is perhaps because individuals do

not alter the perceptions regarding the significance of their work on a daily basis (*cf*.

cognitive crafting).

Based on Job Demands–Resources theory (Demerouti et al., 2001; Bakker &

Demerouti, 2014), Petrou et al. (2012) conceptualized job crafting as strategies that people

use to adjust their job characteristics, i.e. job demands and job resources, in order to make

their job more healthy, motivating, and to increase fit. According to Petrou et al., people craft

their jobs by seeking job resources, seeking job challenges, and reducing job demands. By

interpreting Wrzesniewski and Dutton's (2001) "task crafting" as directed to job demands

and "relational crafting" as directed to job resources, Petrou et al.'s conceptualization

describes what exactly employees do when they craft their job, i.e. changing their work

characteristics on a daily basis. In this way, Petrou et al. (2012) showed that job crafting

occurs daily irrespective of the job.

Petrou et al. (2012) have shown that two of the three targets of job crafting, namely

job resources and job challenges, are positively linked with work engagement (see also

Bakker, Tims & Derks, 2012). Job resources are related to engagement by playing either an

intrinsic motivational role, fulfilling basic human needs; or an extrinsic motivational role,

through successful task completion and satisfaction (Bakker & Demerouti, 2007). At the

same time, job challenges enhance positive employee motivational states via positive

emotions and attitudes (Podsakoff et al., 2007). Crawford, LePine and Rich (2010) found that

job demands employees appraised as challenges were positively associated with work

engagement. In light of this evidence, we expect seeking job resources and challenges to be

associated –through the accumulation of extra job resources and challenges– with work

engagement. This hypothesis is in line with the findings of Petrou et al.'s (2012) diary study

in which they found that on days employees sought resources and challenges they were also

more engaged in their work. In contrast, on days employees reduced their demands they were

less engaged in their work. Although reducing one's workload may protect employee well-being in stressful situations, the authors suggest that by reducing their workload, employees also reduce the triggers or necessity for action, in other words, the optimal level of job challenge (Csikszentmihalyi, 1990) in their daily activities. In line with this reasoning, Tims, Bakker and Derks (2012) found that reducing demands is positively related to cynicism towards work. Therefore, we hypothesize:

Hypothesis 1. Seeking resources (1a) and seeking challenges (1b) is positively related, whereas reducing demands (1c) is negatively related to work engagement.

Job crafting is suggested to stimulate employee flourishing as well. People can use job crafting to redesign their jobs in order to create personal meaning (Wrzesniewski & Dutton, 2001). People have an innate desire to make meaning from the world that surrounds them (Baumeister, Vohs & Ciarocco, 2005). Having increased control over work and gaining more meaning from it will lead to positive work outcomes, such as person-job fit (Tims & Bakker, 2010). Job crafting enables employees to steer their work toward their passions to obtain more enjoyment and meaning from their jobs, which Seligman (2011) posits as being key to increasing a person's well-being (Booth, 2013). Hence,

Hypothesis 2. Seeking resources (2a) and seeking challenges (2b) is positively related, whereas reducing demands (2c) is negatively related to flourishing.

Work Engagement, Flourishing and Extra-role Behavior

Engaged and flourishing employees are suggested to have abundant resources which they are willing and able to invest in their work and to go the extra mile. Work engagement represents a form of intrinsic motivation where the behavior is performed for itself, in order to experience the pleasure and enthusiasm inherent in the work activity (*cf*. Vallerand, 1997). Amabile (1996) explains that intrinsic motivation is necessary in order to perform creative or voluntary activities. Moreover, to a certain extent it can make up for a deficiency of domain-

relevant or task-relevant skills (which are necessary for creativity). Thus, work engagement can be expected to enhance creativity to the extent that work engagement represents a high form of intrinsic motivation. In line with this reasoning, Gevers and Demerouti (2013) found in a weekly diary study that in weeks that engineers were absorbed in their work tasks they were also more creative. Other studies have also shown that the opportunity to become fully immersed in one's job is highly beneficial for creativity (Mainemelis, 2001; Rothbard, 2001).

Consistently, Christian, Garza and Slaughter's (2011) meta-analysis showed that work engagement has incremental value in explaining variance in other-ratings of contextual performance – over and above attitudes like job satisfaction, job involvement and organizational commitment. The explanation for this encouraging conclusion can be found in the three-part configuration of work engagement, which includes energy (vigor), motivational (dedication), and resource allocation (absorption) components. The additive value of these three components is greater than the independent effect of each, as together they form a strong motivational basis that can enhance contextual performance (Demerouti & Cropanzano, 2010). Bakker et al. (2004) provide indirect evidence for the link between work engagement and contextual performance as they found that job resources (e.g., autonomy and social support) were the most crucial predictors of contextual performance, through their relationship with disengagement. When employees lack job resources, the long-term consequence is withdrawal from work and reduced motivation (Bakker, Demerouti, de Boer, & Schaufeli, 2003), and this removes one of the primary mechanisms by which contextual performance is supported by the organization (Goodman & Svyantek, 1999). Therefore,

Hypothesis 3. Work engagement is positively related to supervisor-ratings of creativity (3a) and contextual performance (3b).

Flourishing is suggested to refer to the combination of feeling good (hedonic well-being) and functioning effectively (eudemonic well-being) (Diener et al., 2010; Keyes, 2002). Although high levels of well-being have been shown to be associated with a range of positive

outcomes like pro-social behavior, productivity, creativity and good relationships (reviews in Diener et al., 2010; Huppert, 2009), the relationship of flourishing with positive work outcomes is under-researched (Bakker & Schaufeli, 2008). We suggest that flourishing will stimulate both creativity and contextual performance at work. As flourishing represents the top end of the well-being spectrum, people are believed to experience high positive affect when they flourish (Bakker & Oerlemans, 2011), which according to Fredrickson (2001) broaden peoples' repertoire of available cognitions and actions. Amabile et al. (2005) have shown that positive emotions induce changes in the cognitive processes that facilitate creativity, like increased cognitive flexibility and cognitive breadth in idea generation and problem solving. When people experience positive emotions they are more willing and able to pursue novel, creative and unscripted paths of thought and action (Fredrickson, 2001). Moreover, positive emotions make people more likely to have an outward focus of attention and, for instance, report increased liking for others and willingness to initiate conversations (Wood, Saltzberg & Goldsamt, 1990). Hence,

Hypothesis 4. Flourishing is positively related to supervisor-ratings of creativity (4a) and contextual performance (4b).

Indirect Effects of Job Crafting on Extra-role Behaviors

Whereas contextual conditions are suggested to influence creativity via their effects on employees' intrinsic motivation and affect, existing evidence shows that there are relative weak mediating effects of intrinsic motivation and affect, leaving room for other intervening mechanisms (Shalley et al., 2004). Only Tims et al. (2012) found that the job crafting dimensions were bi-variately related to task performance, whereas Bakker et al. (2012) found that job crafting (seeking resources and challenges) was indirectly related to task performance via work engagement. Moreover, Leana, Appelbaum and Shevchuk (2009) showed that collaborative crafting was related to task performance for less experienced employees. This

scarce empirical evidence suggests that job crafting shows rather modest direct relations with

task performance, and that we lack knowledge on its relationship with extra-role behavior.

We suggest that the crafted job characteristics will be indirectly related to creativity

and contextual performance through work engagement and flourishing. Rather than

suggesting mediation which requires a direct effect of crafted job characteristics (the

predictor) to creativity and contextual performance (the outcomes), we suggest an indirect

effect which means that crafted work characteristics may function as initiators of a sequence

of effects, and that work engagement and flourishing represent conditional variables rather

than explaining variables (Mathieu & Taylor, 2007). Indirect effects are a special form of

intervening effects whereby the predictor and the dependent variable are not related directly,

but only indirectly through significant relationships with a linking mechanism (Mathieu &

Taylor, 2007). Work engagement and flourishing are both suggested to represent intervening

variables as the former has been shown to be action-oriented and to predict performance

behavior (Bakker & Xanthopoulou, 2013; Christian et al., 2011; Demerouti & Cropanzano,

2010), whereas the latter represents an optimal range of human functioning, one that connotes

goodness, growth, and resilience (Keyes, 2002). Contrary to other motivational indicators,

work engagement focuses directly on work performed at a job and represents the willingness

to dedicate physical, cognitive, and emotional resources to work (Christian et al., 2011).

Moreover, when people flourish they will get the best out of themselves as flourishing

represents a form of context-free psychological well-being that refers to optimal human

functioning (Diener et al., 2010).

Hypothesis 5. Job crafting relates indirectly with supervisor-ratings of contextual performance and creativity through work engagement and flourishing.

Method

Participants and Procedure

The participants in the present study were employed in various sectors and job positions in The Netherlands. Fifteen bachelor students recruited the participants as part of their bachelor thesis requirements. Each student approached 25 employees (and their supervisors) from various sectors where creativity could be relevant for performance, which resulted in a sample with very heterogeneous jobs. The only restriction was that the participating employees had a supervisor who could observe their (extra-role) behavior. Demerouti and Rispens (2014) have argued that the student-recruited sampling method has several advantages (heterogeneity of the sample, cost reduction, elaborate research designs, and student learning) if the study is conducted carefully.

Of the 375 packages of paper-and-pencil questionnaires that were distributed, 294 were completed and returned, resulting in a response rate of 78%. We eliminated seven participants as they were self-employed (and thus their extra-role behavior was not rated by a supervisor), leaving 287 usable cases. The students left two questionnaires to the employee, one for him/herself and one for the supervisor. To ensure anonymity, the questionnaires were code-numbered to match the employee and the supervisor. The employees were instructed to give the enclosed questionnaire to their direct supervisor, being the person who conducts with them the yearly appraisal interview. The subordinate was informed that the supervisor would rate his/her behavior at work. We collected supervisor-ratings rather than peer-ratings because supervisors have more experience in evaluating employees and their evaluation influences promotion and other employee benefits. Contextual performance and creativity were labeled as "behavior at work" to avoid socially desirable answers. The supervisor filled in the questionnaire with regard to the participant and returned the completed questionnaire to the participant in a closed envelope (that we provided) to avoid socially desirable answers. Each participant returned the questionnaire along with the supervisor's questionnaire directly to the student.

The sample includes 157 males (55%) and 130 females (45%). The mean age was 36.28 years (*sd* = 13.00). The majority of the sample had higher vocational training (32.4%) or a college degree (25.8%). Organizational tenure was 9.13 years (*sd* = 9.97), and the sample worked on average 29.4 hours per week (*sd* = 12.00). Participants were employed in the public sector (13.9%), trade sector (14.6%), industry (11.1%), business services (10.5%), or the health care sector (10.1%). Information about racial background was not collected because this is inappropriate in the Netherlands. As the Dutch working population has a mean age of 41 years, is 55% male, works on average 32.5 hours per week and 32% is higher educated, our sample is slightly younger and higher educated compared to the Dutch working population.

Measures

Job crafting was measured with the three scales of general-level job crafting used by Petrou et al. (2012). This instrument has been validated as a daily measure, and as a questionnaire that captures a longer timeframe (Petrou, Demerouti & Schaufeli, 2015). Respondents were asked to indicate how often they engaged in several behaviors during the past three months using an answering scale ranging from (1) never to (5) always. Example items are "I ask others for feedback on my job performance (*seeking resources,* 5 items, Cronbach's α = .68)", "I ask for more tasks if I finish my work (*seeking challenges,* 3 items, Cronbach's α = .68)" and "I try to ensure that my work is emotionally less intense." (*reducing demands,* 5 items, Cronbach's α = .69).

Work Engagement was measured with the nine-item version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker & Salanova, 2006). The validity of the UWES has been confirmed in several cultures – including Europe, Australia, South Africa, and the US (Schaufeli et al., 2006). The UWES reflects three underlying dimensions, which are measured with three items each: Vigor (e.g., "At my work, I feel bursting with energy"), Dedication (e.g., "My job inspires me"), and Absorption (e.g., "I get carried away when I am

working"). High scores on all three dimensions indicate high work engagement. Items were scored on a scale ranging from (0) 'never' to (6) 'always'. Cronbach's alpha for the total scale was $\alpha = .87$.

Flourishing was operationalized with Diener et al.'s (2010) flourishing scale. The scale consists of eight items describing important aspects of human functioning ranging from positive relationships, to feelings of competence, to having meaning and purpose in life. Several studies have confirmed the validity, reliability, and the invariant one-factor structure of the 8-item scale across different populations (e.g., Khodarahimi, 2013; Silva & Caetano, 2013). The scale shows the expected positive relationship with constructs like self-esteem, emotional self-efficacy, and positive affect (Dogan, Totan, & Sapmaz, 2013), and has been identified to provide a rounded picture of wellbeing (Hone, Jarden, Schofield, & Duncan, 2014). Each item is answered on a scale that ranges from (1) 'strongly disagree' to (7) 'strongly agree'. All items are phrased in a positive direction. An example item is: "I lead a purposeful and meaningful life". Cronbach's alpha was $\alpha = .83$.

Contextual performance was assessed with the well-validated seven-item scale of Williams and Anderson (1991). The items were formulated such that supervisors are asked to rate the degree to which subordinates showed citizenship behavior towards individuals within the organization. An example item is "The employee helps others with their work when they have been absent even when he/she is not required to do so". Response categories ranged from (1) 'strongly disagree' to (5) 'strongly agree'. Cronbach's alpha was $\alpha = .78$.

Creativity. We used a four-item scale from Miron, Erez, and Naveh (2004) to capture in which supervisors are asked to rate the degree to which subordinates are creative. An example item is 'The employee has a lot of creative ideas'. Again, responses were provided on a five-point Likert scale varying from (1) 'strongly disagree' to (5) 'strongly agree'. Cronbach's alpha was $\alpha = .86$.

Control variables. In order to enable generalizability of our findings, we control for

gender and age as well as for conscientiousness, which represents the personality

characteristic of the Big Five that is mostly related to performance (Barrick & Mount, 1991).

To measure conscientiousness we used the scale of Van Emmerik and Jawal (2005), which

includes three items (i.e. being orderly, organized, and precise) and uses a 7-point answer

format (1 = strongly disagree, 7 = strongly agree).

Results

Descriptive Statistics

Table 1 displays the means, standard deviations, observed as well as corrected

correlations and reliabilities of all study variables. As can be seen, seeking resources and

seeking challenges were positively related, whereas reducing demands was negatively related

to engagement and flourishing. In turn, both engagement and flourishing were positively

related to contextual performance and creativity. In order to test the factor structure of our

measures, we conducted Confirmatory Factor Analysis using AMOS (Arbuckle, 2006). The

hypothesized, 7-factor model (χ^2 = 878.73, df = 443, GFI = .84, TLI = .87, CFI = .89,

RMSEA = .06) fitted the data significantly better than any alternative model, e.g. the model

where work engagement and flourishing items loaded on a single factor ($\Delta \chi^2$ (6 df) = 232.89,

$p < .001$), or the model where additionally creativity and contextual performance loaded on a

single factor ($\Delta \chi^2$ (11 df) = 330.45, $p < .001$).

Hypotheses Testing

The hypotheses were tested with structural equation modeling (SEM) using AMOS.

All constructs except for work engagement were included in the model as latent factors

operationalized by the respective items. Seeking resources and reducing demands were

operationalized with five items each, creativity was operationalized with four items, whereas

seeking challenges and contextual performance were each operationalized with three items.

Work engagement was operationalized by the three manifest variables representing the

dimensions vigor, dedication and absorption. The control variables were included as manifest

variables that had effects on the endogenous latent factors; they were allowed to correlate

with each other and with the exogenous latent factors. Moreover, the hypothesized model

included paths from each job crafting factor to work engagement and flourishing, which

consequently had paths to the creativity and contextual performance factors. As seeking

resources and seeking challenges were correlated, we included the correlation in the model.

Further, the residual terms of creativity and contextual performance were also allowed to

correlate as both represent indicators of extra-role behavior.

Figure 1 displays the resulting path coefficients of the hypothesized model. The

model showed a satisfactory fit to the data (χ^2 = 937.07, df = 493, χ^2 /df = 1.90, GFI = .84,

TLI = .84, CFI = .85, RMSEA = .056, PCLOSE = .034, LO 90 = .051, HI 90 = .062) given

the large number of free parameters (*cf*. Bentler & Chou, 1987). We first inspected the

relationship between job crafting and work engagement (*cf*. hypothesis 1) and between job

crafting and flourishing (*cf*. hypothesis 2). As predicted in hypothesis 1a and 2a, seeking job

resources had a positive relationship with work engagement and flourishing, and reducing job

demands had a negative relationship with work engagement, as predicted in hypothesis 1c.

Unexpectedly, however, seeking challenges was unrelated to both work engagement and

flourishing and reducing demands was unrelated to flourishing. This means that hypothesis

1b, 2b and 2c were rejected.

Next, we inspected the relationship between work engagement and extra-role

behavior (*cf*. Hypothesis 3) as well as flourishing and extra-role behavior (*cf*. Hypothesis 4).

As suggested in hypothesis 3, work engagement was positively related to both creativity and

contextual performance. However, flourishing was positively related to creativity and

unrelated to contextual performance. Thus, hypotheses 3a, 3b and 4a were confirmed,

whereas hypothesis 4b was not confirmed. Furthermore, it is interesting to note that age was

positively related to work engagement and negatively related to seeking resources and

creativity. Gender was positively related to contextual performance such that women showed more contextual performance than men. Conscientiousness was positively related to work engagement and flourishing, and negatively related to reducing demands.

Next to the hypothesized model, we tested an alternative model in which we added the direct paths from job crafting to contextual performance and creativity. This model was not significantly better than the model without these paths ($\Delta\chi^2$ (6 df) = 3.17, *n.s.*). Moreover, none of the additional direct paths reached significance. This means that job crafting does not influence extra-role behavior directly. However, this does not exclude the possibility that it does so indirectly.

In order to test the indirect effects of job crafting on extra-role behavior proposed in hypothesis 5, we tested the indirect effect of job crafting on contextual performance and creativity with the bootstrapping method using maximum likelihood estimates and 1000 samples. Results provided by AMOS showed that seeking resources had a significant and positive indirect relationship with contextual performance (CI: .02 ~ .52, *p* < .01) through work engagement and with creativity (CI: .06 ~ .58, *p* < .05) through work engagement and flourishing. Reducing demands had significant and negative indirect relationships with both contextual performance (CI: -.17 ~ -.02, *p* < .01) and creativity (CI: -.17 ~ -.01, *p* < .01) through work engagement. This means that hypothesis 5 was supported only for two of the three job crafting dimensions. Seeking resources seems to facilitate extra-role behavior (i.e. creativity and contextual performance) through work engagement and in case of creativity also through flourishing, whereas reducing demands seems to inhibit extra-role behavior through work engagement rather than flourishing. Seeking challenges had no indirect relationship with extra-role behavior.

Discussion

The goal of this study was to examine whether job crafting strategies of employees are related to more extra-role behavior as rated by the supervisor and whether this occurs

through work engagement and flourishing. The findings of the present study suggested that the more individuals seek resources at work, the more engaged they are in their work and the more they flourish in their life. Simplifying one's job does not seem to be an effective strategy as the more employees reduced job demands, the less engaged they were in their job, whereas their level of flourishing was unaffected. Seeking challenges did not have additional value in predicting either work engagement or flourishing. Furthermore, work engagement proved to have a strong positive relationship with work functioning that goes beyond formal job requirements. Specifically, the more engaged employees were, the higher the ratings they received from their supervisor regarding their creativity and contextual performance. Flourishing employees were perceived to be more creative but not to exhibit higher contextual performance by their supervisors. Thus, it seems that work engagement and flourishing form conditional experiences explaining the sequence through which job crafting relates to extra-role behavior.

These findings point to the intriguing role of job crafting in predicting organizational behavior. Job crafting was viewed as behavior that is directed towards *expanding* specific job aspects i.e. job resources and challenges, but also *reducing* other aspects i.e. job demands. Of the three dimensions of job crafting only seeking resources was found to play a clear beneficial role for work engagement and flourishing. Similar to Hobfoll's (2002) suggestions that people are directed towards the accumulation of resources in order to protect other valued resources, employees who searched for more resources were more engaged in their job (and showed higher scores on flourishing in their lives), and consequently showed more extra-role behavior. In contrast, the job crafting strategy of decreasing demands was negatively related to work engagement and flourishing of employees. On the one hand, resources provide employees the means to achieve their (work) goals (in the form of instrumental help) and to feel happy (in the form of motivating potential) (*cf.* Hackman & Oldham, 1980). On the other hand, when demands are excessively high, reducing demands

should most likely be viewed as a health-protecting coping strategy that employees use to reduce the triggers or necessity for action and thus to conserve their resources. However, reducing demands may also result in a less stimulating environment (Petrou et al., 2012) and thus to lower engagement. Not surprisingly, the more employees reduced demands the more they refrained from helping others or going the extra mile for the organization and being creative. Employees who take the initiative to reduce their job demands seem to select the most important tasks to invest their energy (Demerouti, Bakker & Leiter, 2014; Freund & Baltes, 1998), and extra-role behaviors are by definition not the most essential for one's work performance. Similarly, Freund and Baltes (1998) have argued that selection, i.e. deciding on goal priorities and ignoring goal irrelevant activities, represents a strategy that people use to deal with lacking energetic resources due to aging.

Contrary to our predictions we found that seeking challenges had no effect on work engagement and flourishing. However, seeking challenges did show positive bivariate correlations with both outcomes. This suggests that the unique added value of seeking challenges is rather low when tested against the effect of seeking resources and decreasing demands. Seeking challenges should result in the accumulation of opportunities for growth that further should stimulate employees to maintain motivation and avoid boredom (Csikszentmihalyi & Nakamura, 1989; Petrou et al., 2012). However, and similar to the propositions of Job Demands–Resources theory (Demerouti et al., 2001; Bakker & Demerouti, 2014) that resources are the triggers of motivation and engagement, we see that accumulating challenges alone (without taking care of resource accumulation) is less motivating. This underscores the importance of motivating characteristics (i.e. job resources) for the experience of work engagement.

It is interesting to notice that work engagement was related to both aspects of extra-role behavior whereas flourishing was related only to creativity in the SEM analysis. However, flourishing was correlated also to contextual performance (*cf.* Table 1).

Apparently, the unique added value of flourishing is rather low when tested against the effect of work engagement. This might be because work engagement is work-related and purposeful, while flourishing is more general and less obviously directed towards work goals and tasks. Whereas work engagement per definition represents the willingness to dedicate resources to work and is action-oriented (Bakker & Xanthopoulou, 2013; Christian et al., 2011; Demerouti & Cropanzano, 2010), flourishing largely connotes feeling good and doing good. Still, although work engagement was a better predictor of supervisor ratings of extra-role behavior, our results about the role of flourishing are promising and in line with the suggestions of Amabile et al. (2005) and Fredrickson (2001) that individuals who flourish in their lives (i.e. experience positive emotions) will pursue more novel, creative and flexible cognitive processes.

Taking everything together, our findings suggest two interesting pathways to creativity and contextual performance. There is a favorable pathway according to which employees create resources by crafting their job, which they invest again in their work tasks in the form of work engagement. The experience of work engagement is related to being rated by the supervisor as more creative and as showing more contextual performance. Moreover, the more individuals craft their job resources, the more likely it is that they will flourish in their lives, which consequently increases their creativity at work. Crafting job resources represents a successful strategy that individuals can use (next to top-down organizational interventions) to make their job fit their preferences, mobilize their energy resources, and ultimately to voluntarily 'do more than is required'. However, job crafting has also a dark side as we found an unfavorable pathway according to which individuals try to preserve their own resources by diminishing their job demands. This in turn makes them experience less engagement in their work tasks and consequently to be viewed as less creative and helpful to others. These processes seem to be fairly independent as seeking resources and decreasing demands were unrelated but they both point at the role of the

employee as a proactive agent. Being proactive agents, employees motivate themselves by

accumulating resources and show favorable work behavior. By diminishing the reasons for

action (demands), employees seem less willing to invest effort in their work tasks and to

positively contribute to the functioning of the organization. As we will discuss below, it is

essential for organizations to find ways to stimulate constructive job crafting and find ways to

reduce ineffective crafting such that dysfunctional consequences of job crafting are reduced

(Oldham & Hackman, 2010).

Limitations

The application of a cross-sectional design to examine presumed causal relationships

between the variables represents the first limitation of this study. For example, one may argue

that better performance can also be an antecedent of higher well-being and of the use of more

successful job crafting strategies, since employees who perform well may experience a

positive spiral in which they feel more efficacious and supported by their organization

(Salanova, Schaufeli, Xanthopoulou & Bakker, 2010). Alternatively, engaged employees may

craft their jobs more in order to remain engaged. We chose for the specific order based on

theoretical arguments and earlier research findings. However, the present findings are

tentative until replicated in studies with longitudinal designs.

A second limitation is that our participants were not randomly selected from the

Dutch working population. Thus, selection bias may have influenced the results. Our findings

can be generalized to somewhat younger, higher educated employees rather than to the Dutch

working population as a whole. Future studies should try to replicate the present findings in

more representative samples. A related limitation concerns the possibility that the

subordinates refrained from giving the questionnaire to their supervisor and that rather they

filled in both parts themselves. Although we cannot exclude this possibility, the correlations

between supervisor ratings and self-ratings (not used in this manuscript) are moderate, i.e., r

$= .35$, $p < .001$ and $r = .40$, $p < .001$ for creativity and contextual performance, respectively,

while the mean scores were similar. This suggests that, most probably, the participants

complied with the instructions of the research assistants, whom generally they knew and

could trust.

Third, although flourishing, work engagement, and extra-role behavior might be

influenced by the work context, e.g. job demands and resources (Bakker & Demerouti, 2014),

we were unable to control for any work characteristic in this study, as these were not

measured. Although other variables could also be predictors of work engagement and

flourishing, showing that when individuals seek job resources they profit themselves (as they

experience higher work engagement and flourishing) and the organization (in terms of extra-

role performance) has important implications for research and practice. Future studies should

however examine the role of job crafting for extra-role behavior by controlling for the

prevailing work characteristics (e.g. autonomy, social support and task interdependency).

Finally, the job crafting scales were just below the cutoff score of .70. The items used

were part of a validated job crafting questionnaire (i.e., Petrou et al., 2012), but it has been

suggested that the internal consistency of questionnaires can be influenced by the context

where the scale is applied (Cronbach & Shavelson, 2004). The fact that the measure was

validated among employees who were experiencing organizational change (Petrou et al.,

2012), may have influenced how employees reacted to the job crafting items. More research

on developing job crafting questionnaires is needed to improve its measurement

Implications and Conclusion

The results of this study indicate that the use of job crafting strategies to change job

demands and job resources is related to higher work engagement and flourishing. Moreover,

whereas it is particularly work engagement that is positively related to extra-role behavior in

the form of creativity and contextual performance, this study also uncovered that flourishing

employees may be more creative in their job. Organizations may use these insights not only

to uncover the real impact of well-being on extra-role behavior (as this is currently

understudied to a large extent) but also to train individuals to use the more effective job crafting strategies to adjust their work characteristics such that they can become more engaged in their work and flourish in their life. For instance, organizations could train their employees to craft their jobs in a way that they find motivating but also feasible to execute without negative consequences due to taxing job demands. Up to now, organizations have used top-down, job redesign approaches in which job demands are optimized and job resources increased for all employees. We believe that such approaches can be complemented with bottom-up, individual job redesign approaches using individual job crafting. Van den Heuvel et al. (2012) found that when employees learned to influence the demands and resources of their work through job crafting exercises, they experienced more positive and less negative emotions as well as higher levels of self-efficacy. Our study shows that it is promising for researchers and practitioners to zoom in on more specific strategies used by employees in order to stimulate employee well-being, creativity, and organizational citizenship behavior.

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Table 1

Means, standard deviations, reliabilities and correlations for study variables.

	Mean	SD	1	2	3	4	5	6	7
1. Seeking resources	3.64	.59	(.68)	.78	.15	.35	.43	.05	.11
2. Seeking challenges	3.23	.84	.52**	(.68)	.07	.30	.21	.10	.09
3. Reducing demands	2.24	.62	.10	.02	(.69)	-.18	-.04	-.16	-.05
4. Work engagement	4.32	1.05	.26**	.23**	-.14*	(.87)	.37	.32	.23
5. Flourishing	5.80	.56	.32**	.16**	-.03	.32**	(.83)	.20	.21
6. Supervisor-rated contextual performance	3.94	.54	.04	.07	-.12*	.26**	.16**	(.78)	.61
7. Supervisor-rated creativity	3.42	.77	.08	.07	-.04	.20**	.18**	.50**	(.86)

Note. *Cronbach's alpha's are on the diagonal, the observed correlations below the diagonal and the correlations corrected for attenuation above the diagonal for all study variables (N = 287 dyads of employees and supervisors). ** p < .01, * p < .05*
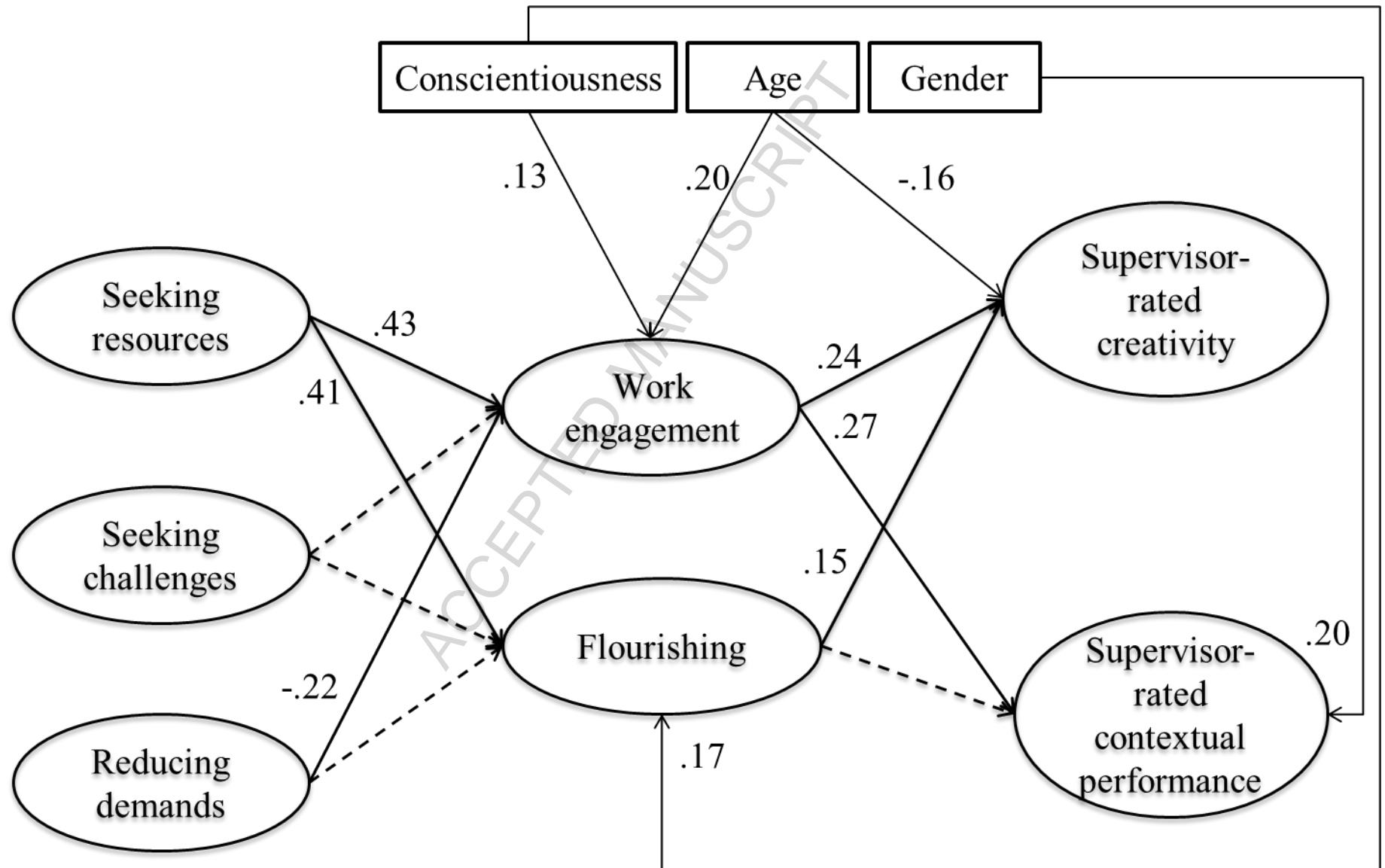
Figure 1: *Resulting standardized paths of the hypothesized job crafting model*

Highlights

- Work engagement shows stronger associations with supervisor-rated extra-role behavior than flourishing

- Job crafting both favorably and unfavorably affects work engagement and flourishing

- Seeking resources favorably affects contextual performance and creativity through work engagement

- Reducing demands unfavorably affects contextual performance and creativity through work engagement