

Productive and Counterproductive Job Crafting: A Daily Diary Study

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The present study aims to uncover the way daily job crafting influences daily job performance (i.e., task performance, altruism, and counterproductive work behavior). Job crafting was conceptualized as “seeking resources,” “seeking challenges,” and “reducing demands” and viewed as strategies individuals use to optimize their job characteristics. We hypothesized that daily job crafting relates to daily job demands and resources (work pressure and autonomy), which consequently relate to daily work engagement and exhaustion and ultimately to job performance. A sample of 95 employees filled in a quantitative diary for 5 consecutive working days (n occasions = 475). We predicted and found that daily seeking resources was positively associated with daily task performance because daily autonomy and work engagement increased. In contrast, daily reducing demands was detrimental for daily task performance and altruism, because employees lower their daily workload and consequently their engagement and exhaustion, respectively. Only daily seeking challenges was positively (rather than negatively) associated with daily counterproductive behavior. We conclude that employee job crafting can have both beneficial and detrimental effects on job performance.

Keywords: counterproductive work behavior, exhaustion, job crafting, task performance, work engagement

Employee performance is highly valuable because it contributes to the organization’s technical core (Borman & Motowidlo, 1997). Although it has long been recognized that job performance is multidimensional (Austin & Villanova, 1992), the research literature has increasingly acknowledged the role of employee work behaviors that fall outside the rubric of task performance (e.g., Borman & Motowidlo, 1997; Campbell, 1990). Such behaviors include organizational citizenship or altruism, but also counterproductive work behavior (CWB) (Dalal, 2005). Borman and Motowidlo have reasoned that such behaviors are important because they “shape the organizational, social, and psychological context that serves as the catalyst for task activities and processes” (p. 100).

The present study aims to uncover the way daily job crafting strategies relate to job performance in the form of task perfor-

mance, altruism, and CWB on a daily basis. Job crafting is proactive behavior through which employees change their work environment and is more specifically conceptualized as strategies that individuals use to shape their job characteristics (i.e., job demands and resources) to regulate their motivation and energy level (Tims & Bakker, 2010). We used a quantitative daily diary design and followed employees from different occupational sectors for five consecutive working days. Diary designs are excellent for studying the role of motivation and energy levels as well as work strategies in predicting behavior as they bring the level of analysis closer to the precipitating conditions leading to daily behavior (Bolger, Davis, & Rafaeli, 2003). In addition, such a methodology enables us to partition the variance in our measures into within-subject and between-subjects sources (Brief & Weiss, 2002).

Task Performance, Altruism, and Counterproductive Work Behavior

Rotundo and Sackett (2002) have suggested that there are three broad performance domains: task performance, organizational citizenship behavior/altruism, and CWB. Task performance represents the officially required outcomes and behaviors that directly serve the goals of the organization (Motowidlo & Van Scotter, 1994). Task performance emphasizes the instrumentality of individual performance for organizational goals. Although this is certainly very important, it does not describe the whole range of human performance at work. Organizational citizenship behavior, or altruism, is defined as discretionary behavior on the part of an employee that is believed to directly promote the effective func-

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tioning of an organization without necessarily directly influencing an employee's productivity (MacKenzie, Podsakoff, & Fetter, 1991). Altruism comprises actions that go beyond what is stated in formal job descriptions and that increase organizational effectiveness (Goodman & Svyantek, 1999). On the contrary, CWB is defined as intentional employee behavior that is harmful to the legitimate interests of an organization (Gruys & Sackett, 2003). Dalal (2005) suggests that although altruism and CWB have several commonalities (e.g., similar predictors, can be directed toward other employees or the organization as a whole, see also Fox, Spector, Goh, Bruursema, & Kessler, 2012), they are also different in several respects. Altruism represents behaviors designed to surpass required levels, whereas CWB suggests that employees behave in ways that they fail to meet minimum requirements (Bennett & Robinson, 2002). Considering these three aspects of performance—task performance, altruism, and CWB—simultaneously, one can assess employees' overall contribution to the organization (Schmidt & Kaplan, 1971).

Job Crafting

The question that arises then is how job crafting is related to job performance and what explains this relationship. We propose that this occurs through changes in job characteristics that result in changes in the level of motivation (work engagement) and energy (exhaustion). Job crafting is defined as the physical and cognitive changes individuals make in their task or relational boundaries (Wrzesniewski & Dutton, 2001). Physical changes refer to changes in the form, scope or number of job tasks, whereas cognitive changes refer to changing how one sees the job. Although Wrzesniewski and Dutton define job crafting as "everyday" behavior, most conceptualizations and operationalizations in the literature do not tap this aspect (Demerouti, 2014).

To capture the "everyday" changes in job characteristics that employees may pursue, some scholars (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims & Bakker, 2010) theoretically frame job crafting in the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Specifically, job crafting is conceptualized as the changes employees make to balance their job demands and job resources with their personal abilities and needs (cf., Tims & Bakker, 2010). Job demands refer to aspects of the job that require effort and therefore are associated with psychophysiological costs, whereas job resources refer to aspects of the job that facilitate dealing with job demands, goal accomplishment, and growth (Demerouti et al., 2001). Petrou et al. (2012) defined job crafting as proactive employee behavior consisting of *seeking resources*, *seeking challenges*, and *reducing demands*. Decreasing job resources has not been proposed and does not seem to constitute purposeful behavior (Hobfoll, 2001). In this way, job crafting can be conceived as unfolding on a daily basis and as being directed toward the work environment that surrounds the individual, namely the specific job demands and job resources. Wrzesniewski and Dutton (2001) and Petrou et al. (2012) suggest that even in the most stable environments with detailed job descriptions and clear work procedures, individuals can and do adjust the tasks they perform and mobilize the resources they need to carry out their tasks successfully—on a daily basis. In this way, individuals

remain healthy and motivated to carry out their task successfully (McClelland, Leach, Clegg, & McGowan, 2014).

Seeking resources (e.g., performance feedback, advice from colleagues, maximizing job autonomy) represents a strategy to deal with job demands to achieve goals or to complete tasks. Hobfoll (2001) also suggests that a basic human motivation is directed toward the accumulation of resources, which are important for the protection of other valued resources. *Seeking challenges* may include behaviors such as seeking new tasks at work or asking for more responsibilities once assigned tasks have been finished. Csikszentmihalyi and Nakamura (1989) argue that when individuals engage in activities offering opportunities for growth, they seek challenges to maintain motivation and avoid boredom. Finally, the strategy of *reducing demands* can include behaviors targeted toward minimizing the emotionally, mentally, or physically demanding aspects of one's work. Reducing job demands might be a strategy to protect health from excessively high demands.

Job Crafting, Job Characteristics, Work Engagement, and Exhaustion

Job crafting refers to the changes employees make in their tasks, relational boundaries, and job characteristics (Petrou et al., 2012; Wrzesniewski & Dutton, 2001). Therefore, job crafting behaviors should be related to changes in job characteristics. Based on job design theory, job redesign interventions (including those in which the job holder participates in the change process) have been used to improve employee well-being and performance by altering job characteristics (Holman, Axtell, Sprigg, Totterdell, & Wall, 2010; Humphrey, Nahrgang, & Morgeson, 2007). Job redesign interventions enable employees to develop ideas about how to improve their jobs (e.g., new responsibilities, new procedures) and, as a result, alter their job characteristics. In line with this suggestion, Holman and colleagues found that their intervention (targeted at increasing job resources like job control and participation, and reducing job demands like task obstacles) was related to increases in employee well-being through altered job characteristics such as increases in job resources and decreases in job demands. Employees who craft their job build new resources and try out new actions, which may lead to a sense of mastery. Engaging in this type of proactive behavior is expected to be linked to an increase in perceived autonomy (i.e., the freedom an individual has in carrying out work; Hackman & Oldham, 1980), and ways to deal with their workload (i.e., the amount of work that has to be executed). We focus specifically on autonomy as a job resource and workload as a job demand because these job characteristics are relevant for most jobs (Karasek, 1998). Job crafting behaviors have been related to altered job characteristics. For instance, Tims, Bakker, and Derks (2013) showed that seeking resources was positively related to increased self-reported job resources (i.e., autonomy, feedback, and social support) over time. Interestingly, Tims and colleagues, found no effect of seeking challenges on changes in workload nor an effect of reducing demands on changes in emotional and cognitive demands. However, Tims and colleagues used longer time frames between the measures which makes it difficult to detect the impact of daily behaviors, like job crafting. We suggest that daily seeking challenges and reducing demands will affect daily workload. On days that employees seek new challeng-

ing demands or reduce their demands by simplifying or eliminating aspects of their job, this will mainly impact their daily workload rather than their daily autonomy. When employees develop ideas about how to improve their job, this can eliminate obstacles and consequently job demands (Holman et al., 2010). Therefore, we expect that on days that employees seek resources they will report higher levels of autonomy. When they expand their job (seeking challenges) they will report more workload, whereas when they reduce demands they will experience less workload.

It is the altered levels of job characteristics that explain daily levels of motivation (of which work engagement is an indicator) and energy (which is operationalized through exhaustion). *Work engagement* represents a positive, affective/motivational reaction toward the job that is characterized by vigor, dedication and absorption (Schaufeli, Bakker, & Salanova, 2006), whereas *exhaustion* represents the depletion of cognitive resources, and particularly the experience of fatigue (Maslach, Schaufeli, & Leiter, 2001). Based on the JD-R model, we can expect that on days that employees experience autonomy in their work, their work engagement is high because job resources have motivating potential in themselves (Bakker & Bal, 2010; Hackman & Oldham, 1980) and facilitate goal accomplishment and growth (Bakker & Demerouti, 2007; Demerouti et al., 2001). On the contrary, the JD-R model suggests that high job demands, like workload, deplete energy because of the required effort and compensatory costs, like exhaustion. Ample empirical evidence has substantiated these relationships (Bakker & Demerouti, 2007, 2014; Demerouti & Bakker, 2011). However, recent meta-analyses (Crawford, LePine, & Rich, 2010; Halbesleben, 2010) have shown that particularly challenging job demands, like work pressure, have additional motivating effects on work engagement, most likely because they trigger positive emotions and cognitions that result in active, problem-focused coping styles. Therefore, we propose the following:

Hypothesis 1: Day-level seeking resources is positively related to day-level work engagement through the (partial) mediation of day-level autonomy.

Hypothesis 2: Day-level seeking challenges is positively related to day-level work engagement (2a) and day-level exhaustion (2b) through the (partial) mediation of day-level workload.

Hypothesis 3: Day-level reducing demands is negatively related to day-level work engagement (3a) and day-level exhaustion (3b) through the (partial) mediation of day-level workload.

Work Engagement and Job Performance

Work engagement has been found to be valid predictor of job performance (Bakker & Bal, 2010). Christian, Garza, and Slaughter's (2011) meta-analysis showed that work engagement has incremental value in explaining variance in other-ratings of task and contextual performance—over and above attitudes like job satisfaction, job involvement, and organizational commitment. For instance, Xanthopoulou, Baker, Heuven, Demerouti, and Schaufeli (2008) found that during flights that attendants were engaged in their work they reported higher levels of task performance and altruism. This beneficial role of work engagement for performance

can be explained by its three-dimensional configuration, including energy, motivation, and resource allocation components (Demerouti & Cropanzano, 2010). One reason why engaged workers reach optimal functioning may be their ability to create their own resources. Research with Fredrickson's (2001) broaden-and-build theory has shown that momentary experiences of positive emotions can build enduring psychological resources and trigger upward spirals toward emotional well-being. Positive emotions not only make people feel good at the moment, but also feel good in the future (Fredrickson & Joiner, 2002). Engaged employees are willing and able to allocate resources in their work (i.e., they are intrinsically motivated). The mobilization of resources will make engaged employees better able to reach their performance goals and go the extra mile for their organization and their colleagues, and less willing to harm any of them. Therefore, we propose:

Hypothesis 4: Day-level work engagement is positively related to day-level task performance (4a), altruism (4b), and negatively related to CWB (4c).

Exhaustion and Job Performance

Conservation of resources theory suggests that if employees experience exhaustion, they are less likely to invest the limited resources they have and will instead maintain a defensive position to protect those resources (Hobfoll, 2001). An exhausted employee's primary motivator becomes protecting whatever scarce resources are left and he or she may not have the resources needed to invest in completing the tasks, duties, and functions of the job (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Halbesleben & Wheeler, 2008). High levels of exhaustion suggest that workers possess insufficient resources to deal effectively with the demands of their jobs, leading to impaired job performance (Taris, 2006). Moreover, and in line with the literature on fatigue (Meijman & Mulder, 1998), it is not only because of depleted energy resources that performance is affected negatively, but also because when individuals are exhausted, they are unwilling to perform (Demerouti, Bakker, & Leiter, 2014).

CWB has been characterized as a behavioral reaction to pervasive and stressful work experiences (Spector & Fox, 2005). Like negative emotions, feelings of exhaustion may signal to individuals that an event is harmful and incongruent with their personal goals (Lazarus, 1991). Individuals are then motivated to reduce or remove felt negative emotions, which can be accomplished by engaging in CWB (Fox, Spector, & Miles, 2001). In this way, CWB can be viewed as a way to restore equity between the outcomes of stressful events (i.e., the negative emotions) and their investments (i.e., work behavior) (Schaufeli, 2006). Although it is possible for individuals to cope with exhaustion by engaging in productive behaviors (e.g., focusing on their most central tasks), individuals experiencing exhaustion may have difficulty thinking about, and subsequently producing, positive coping behaviors. In support of this, empirical evidence suggests that the usual impact of negative emotions, especially those that occur in response to undesirable happenings, is reduced interpersonal communication and impaired job performance (Bagozzi, 2003). Taking everything together, we suggest that on days that employees feel exhausted they will be less able to perform well and to show altruism and more inclined to show CWB. Therefore:

Hypothesis 5: Day-level exhaustion is negatively related to day-level task performance (5a) and altruism (5b), and positively related to CWB (5c).

Overall, we suggest that on days that employees craft their job their daily job demands and resources will be altered such that their job fits to their preferences. On days that employees experience higher job resources (autonomy), they will be more engaged in their work and as a consequence also more willing and able to show task performance and altruism, and less willing to show CWB. In contrast, on days that employees experience high job demands (work pressure) they will be more exhausted and they will show less task performance and altruism, and more CWB. Thus, our final hypothesis is:

Hypothesis 6: Day-level job crafting relates indirectly to day-level job performance (task performance, altruism, and CWB), through day-level job characteristics (autonomy and work pressure), and day-level work engagement and exhaustion (sequential mediation).

Method

Procedure and Participants

Participants were Dutch employees from a variety of occupations working for different organizations. Sixteen master students recruited the participants as part of an assignment. They distributed questionnaires and diaries through their personal contacts. In this way, heterogeneity of the sample and their jobs was secured (Demerouti & Rispen, 2014). Data collectors directly described the objectives of the research to participants, and gave them a package that included (a) a letter describing the purpose of the study and assuring anonymity of all responses, (b) instructions about the completion of the surveys, (c) a general questionnaire, (d) a diary booklet, and (e) return envelopes. The participants filled in the general questionnaire and after that, they completed daily questionnaires once per day after work when they were still at work during five consecutive working days. The diary was completed on average at 5:50 p.m. ($SD = 3.4$ minutes). Therefore, it seems that participants complied with our instructions.

Of the 160 survey packages distributed (10 packages per student), excluding participants who did not fill in all the days, 95 persons responded to the general and daily questionnaires (59% response rate). Participants worked in a broad range of sectors, including business and financial sector (29%), industry (16%), health and welfare (14%), and governmental organizations (13%). The mean age of the participants in the sample was 39.68 years ($SD = 12.86$). Sixty-three percent of them were men. Of all participants, 39% lived with a partner (without children), 36% lived with partner and children, 6% lived with children without partner, whereas 19% lived alone. On average, participants worked 34.89 hours per week ($SD = 9.52$). Employees had a mean work experience of 17.83 years ($SD = 13.35$). The majority of the participants held a university degree (68%; 44% University of Professional Education and 24% University of Sciences); all others had finished high school (32%). Ten percent of the sample was self-employed.

Measures

General questionnaire. Participants were first asked to report how they *generally* feel and behave. These constructs were used as control variables.

General job crafting. To measure the general level of job crafting we used Petrou et al.'s (2012) instrument, which is based on Tims, Bakker, and Derks' (2012) job crafting scale. Respondents indicated how often they engaged in every behavior during the past three months using a scale ranging from 1 = *never* to 5 = *often*. *Seeking resources* included six items ("I ask colleagues for advice," Cronbach's alpha = .70), *seeking challenges* included three items ("I ask for more tasks if I finish my work," Cronbach's alpha = .76), and *reducing demands* included four items ("I try to simplify the complexity of my tasks at work," Cronbach's alpha = .67).

Autonomy was assessed with a three-item scale developed by Bakker et al. (2004) based on Karasek's (1985) Job Content questionnaire. An example item is "Do you have flexibility in the execution of your job?". The items were scored on a 5-point scale, ranging from (1) *never* to (5) *always*. Cronbach's alpha was .87.

General Workload was assessed with a three-item scale developed by Bakker et al. (2004) based on Karasek's (1985) Job Content questionnaire. An example item is "Do you have too much work to do?" The items were scored on a 5-point scale, ranging from (1) *never* to (5) *always*. Cronbach's alpha was .84.

General Work Engagement was measured with the nine-item version of the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2006). The UWES items reflect three underlying dimensions, which are measured with three items each: *Vigor* (e.g., "At my work, I feel bursting with energy"; Cronbach's alpha = .84), *Dedication* (e.g., "My job inspires me"; Cronbach's alpha = .83), and *Absorption* (e.g., "I get carried away when I am working"; Cronbach's alpha = .88). All items were scored on a 7-point scale, ranging from (0) *never* to (6) *always*.

General Exhaustion was measured with a scale of the Dutch version (Schaufeli & Van Dierendonck, 2000) of the Maslach Burnout Inventory-General Survey (Schaufeli, Leiter, Maslach, & Jackson, 1996). This scale includes five items, such as: "I feel emotionally drained from my work" (Cronbach's alpha = .90). Items were scored on a 7-point scale, ranging from (0) *never* to (6) *always*.

General Task Performance and General Altruism were measured with three items each from Goodman and Svyantek' (1999) scale. Xanthopoulou et al. (2008) validated these shortened scales in a diary study among flight attendants. An example item for task performance is "You achieve all the objectives of the job" and for altruism is "You help colleagues when returning at work after a period of absence." Participants were asked to indicate the extent to which they found each statement characteristic of their performance ranging between 0 = *not at all characteristic* and 6 = *totally characteristic*. The Cronbach's alpha for task performance and altruism were .89 and .77, respectively.

General counterproductive work behavior. Ten items from Robinson and Bennett's (1995) list of deviant workplace behaviors and modified by Kelloway, Loughlin, Barling, and Nault (2002) were used to measure interpersonal and organizational CWB. These 10 behaviors were considered to be manifestations of the same underlying motive (De Jonge & Peeters, 2009). Respondents

were asked to report how often they had engaged in each of the 10 listed behaviors in the recent past, with a 5-point frequency scale ranging from 1 (*never*) to 5 (*very often*). For instance, “intentionally worked slow,” “stayed out of sight to avoid work,” and “gossiped about your supervisor.” Cronbach’s alpha was .73.

Daily questionnaire measures. For all constructs, we used shorted scales instead of the full versions to keep the daily surveys short (cf. Ohly, Sonnentag, Niessen, & Zapf, 2010). All responses were given on 5-point scales ranging from 1 = *not true at all* to 5 = *totally true*.

Day-level Job crafting was assessed with the scale developed by Petrou et al. (2012) measuring *day-level seeking resources* (“Today, I have asked my supervisor for advice,” 4 items; Cronbach’s alpha ranged from .72 to .79; $M = .75$), *day-level seeking challenges* (“Today, I have asked for more responsibilities,” 3 items; Cronbach’s alpha ranged from .87 to .92; $M = .90$), and *day-level reducing demands* (“Today, I have made sure that my work is cognitively less intense,” 3 items; Cronbach’s alpha ranged from .79 to .88; $M = .85$).

Day-level Job Autonomy was measured with the three items of Bakker et al. (2004) which have been validated by Petrou et al. (2012) at the day-level, for example, “Today, I could decide myself how I perform my job.” Cronbach’s alpha’s ranged from .78 to .84 ($M = .80$).

Day-level Workload was measured with three items based on Bakker et al. (2004) and validated by Petrou et al. (2012), for example, “Today, I had too much work to do.” Cronbach’s alpha’s ranged from .86 to .91 ($M = .89$).

Day-level Work Engagement was measured with the day-level version of the Utrecht Work Engagement Scale (Breevaart, Bakker, Demerouti, & Hetland, 2012) including nine items (“Today . . . ‘I was enthusiastic about my job,’ ‘I was immersed in my work’”). Cronbach’s alpha ranged from .86 to .91 ($M = .88$).

Day-level Exhaustion was measured with three modified items of the Maslach Burnout Inventory-General Survey (Schaufeli et al., 1996) for example, “Today at work, I felt emotionally drained.” The average Cronbach’s alpha was .85 (ranging between .83 and .87).

Day-level Task Performance and Day-level Altruism were measured with two items each (“Today . . . ‘I performed well,’ ‘I fulfilled all the requirements for my job’ [task performance]; ‘I helped my colleagues when they had too much work to do,’ ‘I voluntarily did more than was required of me’ [altruism]”) based on Goodman and Svyantek (1999) and validated by Xanthopoulou et al. (2008). For task performance, Cronbach’s alpha’s ranged from .70 to .82 ($M = .76$), and interitem correlations ranged from .54 to .69. For altruism, Cronbach’s alpha’s ranged from .62 to .85 ($M = .76$), and interitem correlations ranged from .53 to .75.

Day-level Counterproductive Work Behavior was assessed with four items from Robinson and Bennett (1995; Kelloway et al., 2002), such as “Today . . . ‘I stayed out of sight to avoid work,’ ‘I gossiped about my supervisor.’” Cronbach’s alpha’s ranged from .62 to .85 ($M = .76$).

Strategy of Analysis

Multilevel analysis was used for testing our hypotheses. Repeated measures data can be treated as multilevel data, with repeated measurements nested within individuals. This leads to a

two-level model with the series of repeated measures at the day-level (within-person; $n = 475$ study occasions), and the individual persons at the person-level (between-person; $n = 95$ participants). According to Maas and Hox (2004), for robust estimations of fixed effects in multilevel modeling a sample of at least 30 at the highest level of analysis is needed suggesting that our sample size ($n = 95$) provides sufficient statistical power for the required analyses. In this study, day-level constructs are Level 1 variables, whereas all general constructs represent person-level variables (Level 2). We included work experience as a control (Level 2) variable because this variable was related to task performance and CWB. To gain unbiased estimates of the hypothesized relationships and consistent with Ohly et al.’s (2010) recommendations, all person-level predictor variables were centered to the grand mean, while the day-level predictor variables were centered to the person mean.

To support mediation suggested in Hypothesis 1–3, three conditions should be met according to Mathieu and Taylor (2007): (a) day-level job crafting should be related to day-level job characteristics; (b) day-level job characteristics should be positively related to day-level task performance, altruism, and CWB; and (c) after the inclusion of the mediator, the previously significant relationship between day-level job crafting, and day-level task performance, altruism and CWB either turns to nonsignificance (full mediation), or becomes significantly weaker (partial mediation; Baron & Kenny, 1986).

Hypothesis 6 suggests indirect effects. 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). To test the significance of the indirect effects, we used the parametric bootstrap method recommended by Preacher, Zyphur, and Zhang (2010) to create confidence intervals. We used the online interactive tool developed by Selig and Preacher (2008), which generates an R-code to obtain confidence intervals for the indirect effect. Because this tool does not allow specification of more than two paths, we adjusted the generated R-code to test our sequential mediation hypothesis by adding an extra path from the second mediator to the outcome variable.

Results

Preliminary Analysis

Table 1 presents the means, standard deviations, and correlations among the study variables. These correlations were calculated using the averaged scores over the five days for the day-level variables.

Before hypotheses testing, we calculated the intraclass correlation (ρ ; the amount of variance that may be attributed to between-person fluctuations). The percentage of total variance that resides between persons was significant for all day-level variables: *day-level seeking resources* ($\Delta - 2 \times \log(1) = 253.62, p < .001; \rho = .63$; 37% of the total variance is explained by within-person fluctuations), *day-level seeking challenges* ($\Delta - 2 \times \log(1) = 120.40, p < .001; \rho = .56$; 44% of the total variance can be attributed to within-person fluctuations), *day-level reducing demands* ($\Delta - 2 \times \log(1) = 224.68, p < .001; \rho = .60$; 40% of the total variance is explained by within-person fluctuations), *day-level autonomy* ($\Delta - 2 \times \log(1) = 286.37, p < .001; \rho = .67$;

Table 1
Means, Standard Deviations, and Correlations Among the Study Variables, (n = 95 Employees × 5 days = 475 Occasions)

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
1. Work experience	17.83	13.41																						
2. General seeking resources	3.52	.61	-.22*																					
3. General seeking challenges	2.82	1.00	-.27**	.53**																				
4. General reducing demands	2.03	.61	.03	.16	.20																			
5. General autonomy	3.69	.92	.11	.31**	.06	.10																		
6. General workload	3.21	.91	.09	.21*	-.03	.24*	.32**																	
7. General work engagement	3.69	.85	.29**	.27**	-.15	-.25*	.26*	.24*																
8. General exhaustion	1.60	1.00	-.24*	-.12	.02	.32**	-.07	.35**	-.31**															
9. General task performance	4.31	1.09	.31**	.01	-.13	-.28**	.08	.07	.41**	-.16														
10. General altruism	3.70	1.07	-.06	.18	.26*	.17	.13	.25*	.14	.16	.25*													
11. General CWB	1.70	.41	-.10	.09	.13	.14	.00	-.20*	-.15	-.06	-.21*	-.03												
12. Day-level seeking resources	2.82	.56	-.25*	.51**	.31**	.22*	.14	.14	.12	.05	.00	.19	.14											
13. Day-level seeking challenges	2.18	.58	-.19	.28**	.34**	.07	-.01	.03	.09	-.11	.03	.19	.17	.51**										
14. Day-level reducing demands	1.87	.52	-.21*	.02	.14	.19	.04	.15	-.17	.28**	-.28**	.16	.06	.18	.28**									
15. Day-level autonomy	3.85	.70	.22*	.07	-.17	-.11	.61**	.15	.39**	-.12	.23*	.13	-.09	.15	.06	-.01								
16. Day-level workload	3.05	.82	-.05	.08	.04	.26*	.15	.53**	.09	.40**	.10	.31**	-.23*	.38**	-.01	.15	.25*							
17. Day-level work engagement	3.25	.57	.30**	.17	-.24*	-.10	.21*	.12	.74**	-.29**	.35**	.04	-.20	.14	.17	-.06	.46**	.18						
18. Day-level exhaustion	2.17	.73	-.30**	-.07	.13	.21*	-.13	.23*	-.29**	.67**	-.23*	.16	.04	.20	.02	.47**	-.08	.46**	-.21*					
19. Day-level task performance	3.81	.54	.26*	.08	-.20	-.16	.27**	.22*	.45**	-.20	.53**	.13	-.30**	.07	.12	-.10	.43**	.31**	.67**	-.14				
20. Day-level altruism	3.01	.81	.03	.21*	-.04	-.04	.26*	.32**	.29**	-.14	.21*	.38**	-.17	.34**	.41**	.18	.35**	.36**	.45**	.00	.52**			
21. Day-level CWB	1.56	.45	-.29**	.04	.14	-.02	-.11	-.08	-.11	.15	-.18	.21*	.50**	.12	.26*	.40**	-.11	-.06	-.24*	.29**	-.31**	.05		

Note. Day-level data were averaged across 5 days.
* p < .05 level. ** p < .01.

33% of the total variance is explained by within-person fluctuations), *day-level work pressure* ($\Delta - 2 \times \log(1) = 234.39, p < .001; \rho = .77$; 23% of the total variance is explained by within-person fluctuations), *day-level work engagement* ($\Delta - 2 \times \log(1) = 308.11, p < .001; \rho = .69$; 31% of the total variance can be attributed to within-person fluctuations), *day-level exhaustion* ($\Delta - 2 \times \log(1) = 373.25, p < .001; \rho = .65$; 35% of the total variance can be attributed to within-person fluctuations), *day-level task performance* ($\Delta - 2 \times \log(1) = 481.46, p < .001; \rho = .50$; 50% of the total variance is explained by within-person fluctuations), *day-level altruism* ($\Delta - 2 \times \log(1) = 266.18, p < .001; \rho = .64$; 36% of the total variance is explained by within-person fluctuations), and *day-level CWB* ($\Delta - 2 \times \log(1) = 245.48, p < .001; \rho = .62$; 38% of the total variance is explained by within-person fluctuations). Therefore, we conclude that there are significant amounts of between- and within-person variance in all day-level variables.

Testing Hypotheses

Hypotheses 1–3 propose that day-level job demands and resources mediate the relationship between day-level job crafting, and day-level work engagement and exhaustion. To test the first condition for these Hypotheses, we fit the following models: (a) the Null (intercept-only) model; (b) Model 1, where we added work experience, and the general measures of autonomy and work pressure, respectively; and (c) Model 2, where the day-level job crafting dimensions were added. Results displayed in Table 2 support the first condition for the mediation of Hypothesis 1 and 3. Specifically, day-level seeking resources was significantly related to day-level autonomy, after controlling for work experience and general autonomy. Moreover, day-level seeking resources was significantly and positively related to day-level workload, whereas day-level reducing demands was negatively related to day-level workload, after controlling for work experience and general workload.

To test the second and third condition for Hypothesis 1–3, we examined the four nested models presented in Tables 3 and 4: (a) the Null (intercept-only) model; (b) Model 1, where we added work experience, and the general measures of work engagement or exhaustion, respectively; (c) Model 2, where the day-level job

crafting dimensions were added; and (d) Model 3, where day-level autonomy and workload (mediators) were added. Regarding work engagement, Table 3 (Model 3) shows that seeking resources and challenges were positively and reducing demands was negatively related to work engagement, whereas both day-level autonomy and workload were positively related to day-level work engagement. The Monte Carlo test showed that the indirect effects of seeking resources to work engagement through autonomy (lower bound = .005 to upper bound = .046) as well as of reducing demands to work engagement through workload (lower bound = $-.040$ to upper bound = .002) were significant because the biased corrected 95% confidence interval did not include zero. These findings provide support for Hypothesis 1 and 3a. Hypothesis 2a had to be rejected, as day-level seeking challenges and workload were unrelated. The other indirect effects (e.g., of day-level seeking resources through day-level workload to work engagement) were not significant. Taken together, the results suggest that on days employees seek resources their work engagement increases because their autonomy also increases, whereas on days that they reduce demands their engagement reduces because their workload diminishes.

Regarding day-level exhaustion, Table 4 (Model 2) shows that of the job crafting dimensions only day-level seeking challenges had a negative relationship with day-level exhaustion. Additionally, day-level workload was positively related to day-level exhaustion. Taken results of Tables 2 and 4 together, we can see that day-level reducing demands has the predicted indirect negative effect on day-level exhaustion through day-level workload (lower bound = $-.099$ to upper bound = $-.013$). The other indirect effects (e.g., of day-level seeking resources on day-level exhaustion through day-level workload) were not significant. Moreover, work experience is negatively related to day-level exhaustion. These findings suggest that Hypothesis 2b should be rejected, whereas Hypotheses 3b was supported.

According to Hypothesis 4, day-level work engagement is positively related to task performance and altruism and negatively to CWB. Hypothesis 5 suggests that day-level exhaustion is related to the same job performance dimensions in the opposite fashion. These hypotheses were tested after controlling for work experience, the respective general measure of the performance dimen-

Table 2
Multilevel Model (Model 2) Predicting Day-Level Autonomy and Day-Level Workload: $n = 95$ Employees and $n = 475$ Observations

Model Variables	Autonomy			Workload		
	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
Intercept	3.702	.095	38.968***	3.163	.121	26.140***
Work experience	.008	.004	2.000*	-.006	.005	1.200
General measure	.453	.062	7.306***	.487	.080	4.014***
Day-level seeking resources	.204	.062	3.290**	.161	.082	1.963*
Day-level seeking challenges	.005	.056	0.089	.039	.075	0.520
Day-level reducing demands	.063	.063	1.000	-.228	.087	-2.621**
$-2 \times \log$			773.359			1023.120
$\Delta - 2 \times \log$			16.141***			14.776***
<i>df</i>			3			3
Level 1 (within-person) variance	.212	.016		.413	.072	
Level 2 (between-person) variance	.257	.044		.372	.028	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3
Multilevel Models Predicting Day-Level Work Engagement: $n = 95$ Employees and $n = 475$ Observations

Model Variables	Null			1			2			3		
	Estimate	SE	<i>t</i>									
Intercept	3.247	.057	56.965***	3.173	.067	47.358***	3.171	.067	32.691***	3.717	.067	55.478***
Work experience				.004	.003	1.333	.004	.003	1.333	.004	.003	1.333
General work engagement				.469	.048	9.770***	.471	.048	9.813***	.470	.048	9.792***
Day-level seeking resources							.105	.046	2.282*	.074	.047	1.574
Day-level seeking challenges							.116	.041	2.829**	.121	.042	2.881***
Day-level reducing demands							-.206	.047	4.383***	-.205	.049	-4.184***
Day-level autonomy										.110	.038	2.895**
Day-level workload										.075	.029	2.586***
$-2 \times \log$			601.790			517.794			490.763			475.904
$\Delta - 2 \times \log$						83.996***			27.031***			14.859***
<i>df</i>						2			3			2
Level 1 (within-person) variance	.127	.009		.126	.009		.118	.009		.114	.008	
Level 2 (between-person) variance	.288	.045		.115	.021		.118	.021		.119	.021	

* $p < .05$. ** $p < .01$. *** $p < .001$.

sion, and by including day-level work engagement and exhaustion in the equation. Results (displayed in Table 5) showed that day-level work engagement and exhaustion were both positively related to day-level task performance. Moreover, day-level work engagement and exhaustion were both positively related to day-level altruism. Day-level work engagement and exhaustion were unrelated to day-level CWB. Next to general CWB, work experience was negatively related to day-level CWB. Thus, Hypothesis 4a and 4b were supported, whereas Hypothesis 4c was rejected. Moreover, Hypothesis 5 was rejected as daily exhaustion was positively instead of negatively related to day-level task performance (5a) and altruism (5b) and unrelated to CWB (5c).

Hypothesis 6 states that day-level job crafting has an indirect relationship with day-level task performance, altruism, and CWB through its sequential effect on day-level job characteristics (autonomy and workload) and day-level work engagement and exhaustion. To support Hypothesis 6 the following conditions should be met: (a) day-level job crafting should be related to the respective day-level job characteristic; (b) day-level job characteristics should be related to day-level work engagement and exhaustion;

(c) day-level work engagement and exhaustion should be related to day-level job performance (cf., Mathieu & Taylor, 2007). We tested the indirect effects only for the relationships that were found to be significant when testing Hypotheses 1–5. (The full table is available by the first author on request).

Bootstrapping analyses showed an indirect and positive effect of day-level increasing resources on task performance through day-level autonomy and work engagement (lower bound = .002 to upper bound = .022), and an indirect and negative effect of reducing demands on task performance through day-level workload and work engagement (lower bound = .040 to upper bound = .002). Moreover, day-level reducing demands had an indirect and negative effect on altruism through workload and exhaustion (lower bound = -.020 to upper bound = -.001), whereas a positive effect was expected. Therefore, Hypothesis 6 is partly supported for task performance and altruism and not supported for CWB. Seeking challenges did not have any indirect effects on performance. Next to work experience, only day-level seeking challenges was positively related to CWB.

Table 4
Multilevel Models Predicting Day-Level Exhaustion: $n = 95$ Employees and $n = 475$ Observations

Model Variables	Null			1			2			3		
	Estimate	SE	<i>t</i>									
Intercept	2.170	.074	29.324***	2.315	.092	25.163***	2.320	.092	25.217***	2.319	.092	25.207***
Work experience				-.008	.004	2.000*	-.008	.004	2.000*	-.008	.004	2.000*
General exhaustion				.461	.056	8.323***	.460	.056	8.214***	.460	.056	8.214***
Day-level seeking resources							-.093	.066	1.409	-.119	.065	-1.831
Day-level seeking challenges							-.142	.059	2.407*	-.155	.059	-2.627***
Day-level reducing demands							-.102	.068	1.500	-.038	.068	-0.559
Day-level autonomy										-.073	.054	1.352
Day-level workload										.229	.041	5.585***
$-2 \times \log$			912.346			843.769			820.696			785.538
$\Delta - 2 \times \log$						68.577***			23.073***			35.158***
<i>df</i>						2			3			2
Level 1 (within-person) variance	.225	.019		.224	.041		.244	.041		.225	.017	
Level 2 (between-person) variance	.470	.076		.225	.019		.226	.041		.230	.040	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Multilevel Models Predicting Day-Level Task Performance, Altruism, and Counterproductive Work Behavior (CWB): $n = 95$ Employees and $n = 475$ Observations

Dependent Variable	Task performance			Altruism			CWB		
	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
Intercept	3.729	.082	45.476***	2.955	.130	22.731***	1.713	.063	27.190***
Work experience	.004	.004	1.000	.003	.006	0.500	-.008	.003	-2.667*
General measure of DV	.248	.046	5.391***	.297	.073	4.068***	.513	.093	5.516***
Day-level work engagement	.508	.064	7.938**	.320	.081	3.951***	-.011	.049	0.224
Day-level exhaustion	.128	.045	2.844**	.207	.057	3.632***	-.041	.034	1.206
-2 × log			696.074			963.393			453.848
Level 1 (within-person) variance	.185	.014		.297	.022		.107	.008	
Level 2 (between-person) variance	.173	.031		.505	.083		.113	.020	

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The aim of the present study was to uncover the mechanisms through which daily job crafting strategies influence daily job performance. We particularly focused on daily task performance, altruism, and counterproductive work behavior as these represent a wide range of positive and negative behaviors that employees may exhibit in virtually every job. We hypothesized that daily job characteristics together with daily experiences of work engagement and exhaustion might explain why daily job crafting translates into positive or negative daily behaviors toward colleagues or the organization. By following individuals during five consecutive working days we found that daily seeking resources was positively associated with daily task performance because employees gained more autonomy and were more engaged in their job on a daily basis. On days that employees used the job crafting strategy of reducing demands their daily task performance was lower because it reduced daily workload and work engagement, the triggers of activity and enthusiasm. Daily reducing demands was also detrimental for daily altruism because it reduced daily workload and consequently daily exhaustion. Thus, regarding daily exhaustion our findings are consistent with the findings of Halbesleben and Bowler (2007) that exhaustion led to more altruism as exhausted individuals focused on relationships over their organization. Of the job crafting dimensions, daily seeking challenges was positively associated with daily CWB.

These findings point to the intriguing role of daily job crafting in predicting organizational behavior. Daily job crafting was viewed as behavior that is directed toward *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 have a clear beneficial role. Similar to Hobfoll's (2001) proposition that people are directed toward the accumulation of resources in order to protect other valued resources, on days that employees searched for more resources they were also able to perform better. In contrast, applying decreasing demands as a job crafting strategy was found to be detrimental for daily task performance and altruism. Viewing reducing demands as a health-protecting strategy or an attempt to avoid excessively high demands, it is also not surprising that on days that employees use this strategy they also refrain from fulfilling their role requirements, from helping others, or going the extra mile for the organization (Jex, 1998). Employees who reduce

their job demands seem to select the most important tasks to invest their energy (Freund & Baltes, 1998), and helping others may not be viewed as essential for one's work performance. Demerouti, Bakker and Leiter (2014) found that employees who used selection to deal with their feelings of exhaustion, such as deciding on goal priorities and ignoring goal irrelevant activities, were less adaptive to change compared with those who did not use this strategy.

However, the job crafting dimension with the most intriguing results was seeking challenges. Consistent with Csikszentmihalyi and Nakamura's (1989) argument that when individuals engage in activities offering opportunities for growth they seek challenges to maintain motivation and avoid boredom, on days that employees were involved in this behavior, they also were more engaged in their work, less exhausted, and more willing to help others. On a more abstract level, perhaps helping others can also be viewed as a challenge. At the same time, on days employees seek for more challenges they also show more counterproductive behavior (like gossiping about others and hiding mistakes). Although this might seem counterintuitive, the finding is in line with prior work that has shown that acts of citizenship may lead to CWB when employees feel compelled to perform citizenship because of incompetence, organizational constraints, or supervisor demands (Spector & Fox, 2010). Klotz and Bolino (2013) explain this effect based on the moral licensing theory (Nisan, 1990). Specifically, individuals strive to find a moral equilibrium between good deeds (deeds that boost their moral self-regard) and bad deeds. Seeking new challenges is an example of a good deed as individuals do extra work, while CWB is an example of a bad deed. When moral self-regard is below moral equilibrium, people are motivated to perform good deeds. Moral licensing describes the opposite effect, in that it refers to instances where, because of a history of previous good deeds, individuals feel licensed to engage in bad deeds. This allows their moral self-regard to descend back to their moral equilibrium (Klotz & Bolino, 2013). Thus, on days that individuals search for more challenges they also allow themselves to show CWB to achieve a moral equilibrium. Though intriguing, future research should test these hypotheses more formally.

The findings further point to some interesting insights on how daily job crafting influences daily job performance. In line with earlier research that used longer time frames (Tims et al., 2013), we showed that on days that employees craft their job, the perception of their job characteristics also changes. We focused on

two essential job characteristics, a job resource, autonomy, and a job demand, workload, that are responsible for motivation and strain (Karasek, 1998), and showed that employees can alter job characteristics such that they remain motivated and healthy. The implications of this finding is that job crafting is shown to be a bottom-up job redesign approached that can be used next to top-down approaches (Demerouti, 2014). It is further interesting to note that whereas daily autonomy has the suggested motivational effect on daily work engagement, daily workload is positively related to both daily work engagement and exhaustion and that daily exhaustion is positively related to altruism.

These findings are rooted in theory (i.e., Fredrickson (2001) for engagement and Hobfoll (2001) for exhaustion) and have several implications. First, when it is up to the employees, they will expand the scope of their job (cf., the positive relationship between daily seeking resources and both daily autonomy and workload) and enhance the reasons for action and accomplishment (Petrou et al., 2012) to accumulate resources and experience positive emotions. Second, daily workload or the reason for action is both motivating (because it enhances mastery and the related positive emotions) and exhausting (as the investment of effort consumes energy) for individuals. On the contrary, enduring workload has detrimental effects on exhaustion (Van Bogaert et al., 2013). Similarly, daily exhaustion was positively associated with daily altruism, while chronic exhaustion is suggested to be detrimental to performance (Taris, 2006). It is conceivable that employees did not experience interactions with colleagues as energy draining because they might be able to control when they were available for colleagues (Ten Brummelhuis, Bakker, Hetland, & Keulemans, 2012). Alternatively, exhausted individuals might be willing to do everything they can to remain helpful colleagues (Halbesleben & Bowler, 2007). However, this could be a strategy that may eventually lead them to a total breakdown but that masks, at least temporarily, performance decrements (cf., Demerouti, Verbeke, & Bakker, 2005).

Limitations

The first limitation refers to the fact that we collected self-report data, which raises concerns about common-method variance. To face this problem, we gathered data through two different types of questionnaires, used person-centered scores in the analyses, and asked people to provide repeated information about their experiences and behaviors. As the phenomena under study take place in domains where participants relate to other people, colleagues or supervisors may be able to provide information about an employee's job crafting, citizenship, and counterproductive behavior. However, for job performance, self-reported information is valuable as such behaviors are not always observable by others (Bolino, Turnley, Gilstrap, & Suazo, 2010; Spector & Fox, 2010).

A second limitation is related to the data collection procedure. Although other daily studies have used paper survey packages (e.g., Breevaart et al., 2014; Xanthopoulou et al., 2008), we are aware that other technologies for collecting data (e.g., handheld computers, online surveys) may provide more reliable results since researchers can verify whether participants complied with the instructions, as by using more advanced instruments we can know the exact time in which the survey was filled in (e.g., Oerlemans & Bakker, 2014; Unger, Niessen, Sonnentag, & Neff, 2014).

Moreover, though concerns have been raised about student-recruited samples (cf., Kendall et al., 2008), a recent study found no meaningful differences in results from student-recruited and nonstudent recruited studies of work engagement (Wheeler, Shantine, Leon, & Whitman, 2014).

A third limitation concerns the fact that we collected data only for one job demand and one job resource which are applicable to every job but do not capture the full range of demands and resources that individuals can craft. For instance, although workload is an important challenge demand, we have no information about hindrance demands (e.g., role conflict or role ambiguity) that individuals can try to reduce, or task complexity that individuals may increase or diminish. Therefore, future studies should examine a broader range of job demands so that it becomes clear which demands individuals aim to reduce and which they aim to increase. Finally, although the sequence that we tested in this study (job crafting → job characteristics → motivation/energy → job performance) is based on theory and earlier research, other sequences are also plausible. For instance, it is possible that exhausted individuals are less able to craft their job (cf., Bakker & Demerouti, 2014), or that individuals who perform well craft their job more. In our study, we were unable to find substantial lagged effects between the focal variables. Future research is necessary to clarify the issue of causality regarding job crafting behaviors and its outcomes.

Implications

Our findings have an important implication for organizations that strive toward engaged and productive employees. Organizations should stimulate job crafting, and especially the seeking resources strategies. Such strategies have beneficial effects on task performance and altruism. This means that similar to the suggestion of earlier research on proactivity (Grant & Parker, 2009), empowering individuals to make work their own and in accordance with their needs and preferences can increase effective behavior. Van den Heuvel, Demerouti, and Peeters (2012) found that job crafting behavior can be trained among employees and have positive consequences. Stimulating such positive behavior seems an efficient way to contribute to productive workforce. Finally, our study suggests that organizations should develop practices to manage employee job crafting on a daily basis, as we found that they both have beneficial and detrimental effects. A supervisor who acts as role model and who justifies to employees which behaviors and strategies are beneficial for both the organization and the individual may be a key factor for the success of organizations and a healthy workforce.

References

- Austin, J. T., & Villanova, P. (1992). The criterion problem: 1917–1992. *Journal of Applied Psychology, 77*, 836–874. <http://dx.doi.org/10.1037/0021-9010.77.6.836>
- Bagozzi, R. P. (2003). Benefits and costs of positive and negative emotions: The role of self-regulation. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 176–193). San Francisco, CA: Berrett-Koehler.
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology, 83*, 189–206. <http://dx.doi.org/10.1348/096317909X402596>

- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22, 309–328. <http://dx.doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2014). Job Demands-Resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and wellbeing: Wellbeing: A complete reference guide* (Vol. III, pp. 37–64). Chichester, UK: Wiley-Blackwell. <http://dx.doi.org/10.1002/9781118539415.wbwell019>
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management*, 43, 83–104. <http://dx.doi.org/10.1002/hrm.20004>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182. <http://dx.doi.org/10.1037/0022-3514.51.6.1173>
- Bennett, R. J., & Robinson, S. L. (2002). The past, present and future of workplace deviance research. In J. Greenberg (Ed.), *Organizational behavior: The state of the science* (2nd ed., pp. 247–281). Mahwah, NJ: Erlbaum.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54, 579–616. <http://dx.doi.org/10.1146/annurev.psych.54.101601.145030>
- Bolino, M. C., Turnley, W. H., Gilstrap, J. B., & Suazo, M. M. (2010). Citizenship under pressure: What's a "good soldier" to do? *Journal of Organizational Behavior*, 31, 835–855. <http://dx.doi.org/10.1002/job.635>
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10, 99–109. http://dx.doi.org/10.1207/s15327043hup1002_3
- Breevaart, K., Bakker, A. B., Demerouti, E., & Hetland, J. (2012). The measurement of state work engagement: A multilevel factor analytic study. *European Journal of Psychological Assessment*, 28, 305–312. <http://dx.doi.org/10.1027/1015-5759/a000111>
- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O. K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational and Organizational Psychology*, 87, 138–157. <http://dx.doi.org/10.1111/joop.12041>
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279–307. <http://dx.doi.org/10.1146/annurev.psych.53.100901.135156>
- Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, pp. 687–732). Palo Alto, CA: Consulting Psychologists Press.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89–136. <http://dx.doi.org/10.1111/j.1744-6570.2010.01203.x>
- Crawford, E. R., Lepine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834–848. <http://dx.doi.org/10.1037/a0019364>
- Csikszentmihalyi, M., & Nakamura, J. (1989). The dynamics of intrinsic motivation: A study of adolescents. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (Vol. 3, pp. 45–71). Orlando, FL: Academic Press.
- Dalal, R. S. (2005). A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior. *Journal of Applied Psychology*, 90, 1241–1255. <http://dx.doi.org/10.1037/0021-9010.90.6.1241>
- de Jonge, J., & Peeters, M. C. W. (2009). Convergence of self-reports and coworker reports of counterproductive work behavior: A cross-sectional multi-source survey among health care workers. *International Journal of Nursing Studies*, 46, 699–707. <http://dx.doi.org/10.1016/j.ijnurstu.2008.12.010>
- Demerouti, E. (2014). Design your own job through job crafting. *European Psychologist*, 19, 237–247. <http://dx.doi.org/10.1027/1016-9040/a000188>
- Demerouti, E., & Bakker, A. B. (2011). The Job Demands-Resources model: Challenges for future research. *South African Journal of Industrial Psychology*, 37, 1–9.
- Demerouti, E., Bakker, A. B., & Leiter, M. (2014). Burnout and job performance: The moderating role of selection, optimization, and compensation strategies. *Journal of Occupational Health Psychology*, 19, 96–107. <http://dx.doi.org/10.1037/a0035062>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499–512.
- Demerouti, E., & Cropanzano, R. (2010). From thought to action: Employee work engagement and job performance. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 147–163). New York, NY: Psychology Press.
- Demerouti, E., & Rispens, S. (2014). Improving the image of student-recruited samples: A commentary. *Journal of Occupational and Organizational Psychology*, 87, 34–41. <http://dx.doi.org/10.1111/joop.12048>
- Demerouti, E., Verbeke, W., & Bakker, A. B. (2005). Exploring the relationship between a multidimensional and multifaceted burnout concept and self-rated performance. *Journal of Management*, 31, 186–209. <http://dx.doi.org/10.1177/0149206304271602>
- Fox, S., Spector, P. E., Goh, A., Bruursema, K., & Kessler, S. R. (2012). The deviant citizen: Measuring potential positive relations between counterproductive work behaviour and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology*, 85, 199–220. <http://dx.doi.org/10.1111/j.2044-8325.2011.02032.x>
- Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59, 291–309. <http://dx.doi.org/10.1006/jvbe.2001.1803>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226. <http://dx.doi.org/10.1037/0003-066X.56.3.218>
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172–175. <http://dx.doi.org/10.1111/1467-9280.00431>
- Freund, A. M., & Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging*, 13, 531–543. <http://dx.doi.org/10.1037/0882-7974.13.4.531>
- Goodman, S. A., & Svyantek, D. J. (1999). Person-organization fit and contextual performance: Do shared values matter. *Journal of Vocational Behavior*, 55, 254–275. <http://dx.doi.org/10.1006/jvbe.1998.1682>
- Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives. *The Academy of Management Annals*, 3, 317–375. <http://dx.doi.org/10.1080/19416520903047327>
- Gruys, M. L., & Sackett, P. R. (2003). Investigating the dimensionality of counterproductive work behavior. *International Journal of Selection and Assessment*, 11, 30–42. <http://dx.doi.org/10.1111/1468-2389.00224>
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison Wesley.
- Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources and consequences. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 102–117). New York, NY: Psychology Press.

- Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology, 92*, 93–106. <http://dx.doi.org/10.1037/0021-9010.92.1.93>
- Halbesleben, J. R. B., Neveu, J., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR”: Understanding the role of resources in conservation of resources theory. *Journal of Management, 40*, 1334–1364. <http://dx.doi.org/10.1177/0149206314527130>
- Halbesleben, J. R. B., & Wheeler, A. R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave. *Work & Stress, 22*, 242–256. <http://dx.doi.org/10.1080/02678370802383962>
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review, 50*, 337–421. <http://dx.doi.org/10.1111/1464-0597.00062>
- Holman, D., Axtell, C., Sprigg, C., Totterdell, P., & Wall, T. (2010). The mediating role of job characteristics in job redesign interventions: A serendipitous quasi-experiment. *Journal of Organizational Behavior, 31*, 84–105. <http://dx.doi.org/10.1002/job.631>
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology, 92*, 1332–1356. <http://dx.doi.org/10.1037/0021-9010.92.5.1332>
- Jex, S. M. (1998). *Stress and job performance: Theory, research, and implications for managerial practice*. Thousand Oaks, CA: Sage.
- Karasek, R. A. (1985). *Job content questionnaire and user's guide*. Los Angeles, CA: Department of Industrial and System Engineering, University of Southern California.
- Karasek, R. A. (1998). Demand/Control Model: A social, emotional, and physiological approach to stress risk and active behavior development. In J. M. Stellman (Ed.), *Encyclopaedia of occupational health and safety* (pp. 34.6–34.14). Geneva, Switzerland: ILO.
- Kelloway, E. K., Loughlin, C., Barling, J., & Nault, A. (2002). Self-reported counterproductive behaviors and organizational citizenship behaviors: Separate but related constructs. *International Journal of Selection and Assessment, 10*, 143–151. <http://dx.doi.org/10.1111/1468-2389.00201>
- Kendall, C., Kerr, L. R., Gondim, R. C., Werneck, G. L., Macena, R. H., Pontes, M. K., . . . McFarland, W. (2008). An empirical comparison of respondent-driven sampling, time location sampling, and snowball sampling for behavioral surveillance in men who have sex with men, Fortaleza, Brazil. *AIDS and Behavior, 12*, S97–S104. <http://dx.doi.org/10.1007/s10461-008-9390-4>
- Klotz, A., & Bolino, M. (2013). Citizenship and counterproductive work behavior: A moral licensing view. *The Academy of Management Review, 38*, 292–306. <http://dx.doi.org/10.5465/amr.2011.0109>
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press.
- Maas, C. J., & Hox, J. J. (2004). Robustness issues in multilevel regression analysis. *Statistica Neerlandica, 58*, 127–137. <http://dx.doi.org/10.1046/j.0039-0402.2003.00252.x>
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons. *Organizational Behavior and Human Decision Processes, 50*, 123–150. [http://dx.doi.org/10.1016/0749-5978\(91\)90037-T](http://dx.doi.org/10.1016/0749-5978(91)90037-T)
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*, 397–422. <http://dx.doi.org/10.1146/annurev.psych.52.1.397>
- Mathieu, J. E., & Taylor, S. R. (2007). A framework for testing meso-mediational relationships in organizational behavior. *Journal of Organizational Behavior, 28*, 141–172. <http://dx.doi.org/10.1002/job.436>
- McClelland, G. P., Leach, D. J., Clegg, C. W., & McGowan, I. (2014). Collaborative crafting in call centre teams. *Journal of Occupational and Organizational Psychology, 87*, 464–486. <http://dx.doi.org/10.1111/joop.12058>
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. D. Drenth & H. Thierry (Eds.), *Handbook of work and organizational psychology, Vol. 2: Work psychology* (pp. 5–33). Hove, England: Psychology Press.
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology, 79*, 475–480. <http://dx.doi.org/10.1037/0021-9010.79.4.475>
- Nisan, M. (1990). Moral balance: A model of how people arrive at moral decisions. In T. E. Wren (Ed.), *The moral domain* (pp. 283–314). Cambridge, MA: MIT Press.
- Oerlemans, W. G., & Bakker, A. B. (2014). Burnout and daily recovery: A day reconstruction study. *Journal of Occupational Health Psychology, 19*, 303–314. <http://dx.doi.org/10.1037/a0036904>
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology, 9*, 79–93. <http://dx.doi.org/10.1027/1866-5888/a000009>
- Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior, 33*, 1120–1141. <http://dx.doi.org/10.1002/job.1783>
- Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods, 15*, 209–233. <http://dx.doi.org/10.1037/a0020141>
- Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multi-dimensional scaling study. *Academy of Management Journal, 38*, 555–572. <http://dx.doi.org/10.2307/256693>
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology, 87*, 66–80. <http://dx.doi.org/10.1037/0021-9010.87.1.66>
- Schaufeli, W. B. (2006). The balance of give and take: Toward a social exchange model of burnout. *Revue Internationale de Psychologie Sociale, 1*, 75–119.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a brief questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701–716. <http://dx.doi.org/10.1177/0013164405282471>
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *MBI manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Schaufeli, W. B., & Van Dierendonck, D. (2000). *De Utrechtse Burnout Schaal, handleiding* [Utrecht Burnout Scale: Test manual]. Lisse, The Netherlands: Swets Test Services.
- Schmidt, F. L., & Kaplan, L. B. (1971). Composite vs. multiple criteria: A review and resolution of the controversy. *Personnel Psychology, 24*, 419–434. <http://dx.doi.org/10.1111/j.1744-6570.1971.tb00365.x>
- Selig, J. P., & Preacher, K. J. (2008). Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects [Computer software].
- Spector, P. E., & Fox, S. (2005). A model of counterproductive work behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive workplace behavior: Investigations of actors and targets* (pp. 151–174). Washington, DC: APA. <http://dx.doi.org/10.1037/10893-007>
- Spector, P. E., & Fox, S. (2010). Counterproductive work behavior and organisational citizenship behavior: Are they opposite forms of active behavior? *Applied Psychology: An International Review, 59*, 21–39. <http://dx.doi.org/10.1111/j.1464-0597.2009.00414.x>

- Taris, T. W. (2006). Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress, 20*, 316–334. <http://dx.doi.org/10.1080/02678370601065893>
- ten Brummelhuis, L. L., Bakker, A. B., Hetland, J., & Keulemans, L. (2012). Do new ways of working foster work engagement? *Psicothema, 24*, 113–120.
- Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *South African Journal of Industrial Psychology, 36*, 1–9.
- Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior, 80*, 173–186. <http://dx.doi.org/10.1016/j.jvb.2011.05.009>
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology, 18*, 230–240. <http://dx.doi.org/10.1037/a0032141>
- Unger, D., Niessen, C., Sonnentag, S., & Neff, A. (2014). A question of time: Daily time allocation between work and private life. *Journal of Occupational and Organizational Psychology, 87*, 158–176. <http://dx.doi.org/10.1111/joop.12045>
- Van Bogaert, P., Clarke, S., Wouters, K., Franck, E., Willems, R., & Mondelaers, M. (2013). Impacts of unit-level nurse practice environment, workload and burnout on nurse-reported outcomes in psychiatric hospitals: A multilevel modelling approach. *International Journal of Nursing Studies, 50*, 357–365. <http://dx.doi.org/10.1016/j.ijnurstu.2012.05.006>
- Van den Heuvel, M., Demerouti, E., & Peeters, M. C. W. (2012). Succesvol job craften door middel van een groepstraining [Successful job crafting through a group training]. In J. de Jonge, M. C. W. Peeters, S. Sjollema, & H. de Zeeuw (Eds.), *Scherp in werk: Vijf routes naar optimale inzetbaarheid* (pp. 7–20). Assen, The Netherlands: Van Gorcum.
- Wheeler, A. R., Shanine, K. K., Leon, M. R., & Whitman, M. V. (2014). Student-recruited samples in organizational research: A review, analysis, and guidelines for future research. *Journal of Occupational and Organizational Psychology, 87*, 1–26. <http://dx.doi.org/10.1111/joop.12042>
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review, 26*, 179–201.
- Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: A diary study on work engagement among flight attendants. *Journal of Occupational Health Psychology, 13*, 345–356. <http://dx.doi.org/10.1037/1076-8998.13.4.345>

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Correction to Demerouti, Bakker, and Halbesleben (2015)

In the article “Productive and Counterproductive Job Crafting: A Daily Diary Study” by Evangelia Demerouti, Arnold B. Bakker, and Jonathon R. B. Halbesleben (*Journal of Occupational Health Psychology*, Advance online publication, March 23, 2015. <http://dx.doi.org/10.1037/a0039002>), there was an error in the results. In the Results section, under the subheading Testing Hypotheses, the parenthetical text referring to “lower bound and upper bound” for reducing demands to work engagement through workload in the second paragraph and for reducing demands on task performance through day-level workload and work engagement in the sixth paragraph respectively should have read as follows: (lower bound = $-.040$ to upper bound = $-.002$)

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