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Crafting One's Job to Take Charge of Role Overload: When Proactivity Requires Adaptivity Across Levels

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Abstract

The present study investigates employees' job crafting behavior in the context of perceived role overload, and identifies employees' perceived ability to deal with work change (i.e., "perceived adaptivity") and leaders' need for structure as moderators positively influencing this relationship. A two-wave panel field study of 47 leaders and 143 employees in a Norwegian manufacturing firm found that perceived role overload related negatively to employees' job crafting, as hypothesized. Employees' perceived adaptivity alone did not increase job crafting in role overload situations, as predicted. Rather, the relationship between perceived role overload and job crafting was only positive when employees' perceived adaptivity was high and their leaders' need for structure was low. Thus, employees' job crafting in role overload situations depends on the interactive fit between employees' and leaders' adaptive capabilities. Implications for the socially embedded theory of job crafting and leadership practice are discussed.

Keywords: job crafting, role overload, adaptivity, need for structure

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When Proactivity Requires Adaptivity Across Levels

In addition to the top-down prescription of job characteristics and content, work design scholars increasingly acknowledge the influence of emergent processes in which employees proactively "craft" their jobs by changing the task, relational, and cognitive boundaries of work (Grant & Parker, 2009; Oldham & Hackman, 2010). Job crafting can serve aspirational purposes, such as deriving more meaning from one's work (Berg, Wrzesniewski, & Dutton, 2010; Wrzesniewski & Dutton, 2001). It can also serve more productivity-oriented purposes. Notably, proactively altering aspects of one's work can help employees deal with challenging job demands (Daniels, Beesley, Wimalasiri, & Cheyne, 2013; Petrou, Demerouti, Peeters, Schaufeli, & Heland, 2012; Tims, Bakker, & Derks, 2012) and "take charge" to improve work practice (Leana, Appelbaum, & Shevchuk, 2009). In this line of research, job crafting has been linked with several beneficial outcomes, including effective problem solving (Daniels et al., 2013), work engagement (Petrou et al., 2012; Tims et al., 2012), and employee performance (Leana et al., 2009; Tims et al., 2012). Thus, while employees might engage in job crafting for a variety of reasons, there is particular value in promoting this behavior among employees engaged in demanding work situations where job functioning could be improved.

On the other hand, we know little about what facilitates job crafting (Berg, Grant, & Johnson, 2010; Tims et al., 2012), particularly in work situations where job demands actually hinder employees' ability to perform effectively. While qualitative research emphasizes adaptivity as a key enabler of job crafting (Berg, Wrzesniewski, et al., 2010), no known research has examined if employees' adaptivity facilitates job crafting in the context of hindering job demands. Further, while employees' job crafting efforts are held to be shaped by the leaders they are assigned to work with (Berg, Wrzesniewski, et al., 2010; Wrzesniewski & Dutton, 2001),

little empirical research has addressed job crafting as a socially embedded phenomenon. Efforts to take charge of hindering job demands relies on viewing these demands as obstacles that can be overcome through self-initiated effort (Eatough, Chang, Miloslavic, & Johnson, 2011; Gilboa, Shirom, & Fried, 2008). It is likely that both individual- and leader-related factors influence such perceptions. Accordingly, the present research investigates aspects of employee- and leader-level adaptivity as individually-held and socially-embedded factors, respectively, that interact to enable employees to craft their jobs in the context of hindering job demands.

Specifically, we examine job crafting in role overload situations where the amount of work demanded from employees greatly hinders their ability to perform effectively (LePine, Podsakoff, & LePine, 2005). Based on the findings of meta-analytical research, we expect that perceived role overload should relate negatively to employees' job crafting behavior, as job crafting should be viewed as having a low probability of success or sapping the basic resources employees need to deal with this hindering job demand (Crawford, Lepine, & Rich, 2010; LePine et al., 2005). However, taking an interactionist perspective of employee behavior, we identify employee- and leader-level factors that facilitate job crafting by altering this assessment. Specifically, we argue that employees' perceived ability to deal with change (their "perceived adaptivity") provides them with the confidence to carry out the job crafting that could improve their work situation. Further, we propose that leaders' need for structure (Neuberg & Newsom, 1993), as it reflects a preference for predictable and unambiguous environments, indicates a form of inadaptivity that gives rise to work contexts where employees will have less opportunity to job craft. Thus, we hypothesize a three-way interaction between perceived role overload, employees' perceived adaptivity, and leaders' need for structure, in which the relationship between perceived role overload and job crafting is strongest when employees' perceived adaptivity is high and leaders' need for structure is low.

Given this agenda, the intended contribution of our research is threefold. First, we seek to extend our understanding of what facilitates job crafting in role overload contexts where this activity could be particularly beneficial for improving job functioning. To date, the only known research taking this perspective has focused on job crafting in the context of challenging work demands, but not hindering demands such as role overload (Daniels et al., 2013; Petrou et al., 2012). Second, we seek to extend both the "proactivity requires adaptivity" thesis and the socially-embedded account of job crafting advanced by Berg, Wrzesniewski, and colleagues (2010) by investigating the interactive impact that employees' perceived adaptivity and leaders' need for structure has on employees' job crafting behavior in the context of hindering job demands. To this end, we also contribute to both the job crafting and leadership literatures by advancing our understanding of how leaders influence job crafting. Prior research has focused on the structural aspects of work that shape leader behavior and, in turn, employees' opportunity to job craft (Wrzesniewski & Dutton, 2001). Our study indicates that leaders' need for structure also influences employees' job crafting behavior, conceivably by shaping leader behavior and, in turn, a work context that constrains employees' opportunity to job craft. Thus, our findings contribute to the literature identifying how leaders' preferences can shape their behavior and, in turn, a work context that influences consistent employee behavior (Dragoni, 2005; Dragoni & Kuenzi, 2012). Implications of our findings for theory and practice are discussed.

Job Crafting in the Context of Role Overload: A Conditional Response

Job crafting describes the changes that employees make to the task, relational, or cognitive boundaries of their work (Wrzesniewski & Dutton, 2001), and includes activities such as redefining the scope of one's work responsibilities, altering work procedures, and seeking out new work relationships (Berg, Wrzesniewski, et al., 2010). Job crafting is often classified as a

proactive behavior as it reflects a self-initiated effort to bring about change. However, unlike other proactive behaviors, job crafting is not necessarily anticipative (c.f., Grant & Ashford, 2008; Parker & Collins, 2010). In fact, most conceptualizations of job crafting view the behavior as a response to one's present work situation. Wrzesniewski and Dutton (2001), for example, originally described job crafting as something employees undertake to create a better fit between their prescribed job and their own preferences, needs, and aspirations. Other scholars view employees' self-initiated efforts to alter aspects of their task and relational responsibilities at work as a means to deal more effectively with current job demands (e.g., Daniels et al., 2013; Petrou et al., 2012; Tims et al., 2012). Similarly, Leana et al. (2009) compare job crafting to "taking charge" (E. W. Morrison & Phelps, 1999), referring to the voluntary, constructive changes employees make to improve unproductive aspects of their work. In their research, job crafting includes changing unproductive work procedures, introducing new approaches at work to improve effectiveness, and changing the way work is done to make it easier to carry out.

As a self-initiated effort to change one's job, job crafting is distinct from other responsive work behaviors such as adaptive performance, which reflects employees' adjustment to externally initiated work changes (M. A. Griffin, Neal, & Parker, 2007). While adaptive performance requires employees to change plans, goals, actions, or priorities to deal with changing work situations (Pulakos, Arad, Donovan, & Plamondon, 2000), these changes are driven by external, organizational requirements and not the desire to create a better personal fit or more productive functioning. In fact, adapting to changing work situations could require giving up work tasks that one finds enjoyable (c.f., Oreg, 2006) or adopting new methods or systems that add unnecessary, and perhaps hindering, complexity to one's work. However, adaptive performance and job crafting, while distinct, are likely interrelated processes (Berg, Wrzesniewski, et al., 2010). Employees' efforts to change the task, relational, or cognitive

boundaries of their work could be driven by a desire to resolve problems brought about by an externally-initiated change. Alternatively, successful displays of adaptivity performance could provide employees with the resources needed to engage in future proactive behavior (Strauss, Griffin, Parker, & Mason, 2013). We come back to the latter process in later sections of our hypotheses development.

Perceived role overload and job crafting

As Leana et al.'s (2009) research highlights, job crafting can result in better communication, more efficient collaboration, and greater productivity. Accordingly, while employees might craft their jobs for a variety of reasons, the activities involved in job crafting should be particularly valuable in role overload situations where the amount of work demanded from employees hinders their ability to perform effectively. However, while job crafting is generally held as a proactive means to deal with challenging job demands (e.g., Daniels et al., 2013; Petrou et al., 2012; Tims et al., 2012), extant research suggests that employees may not undertake job crafting in role overload situations without sufficient facilitation. Role overload, as it significantly threatens employees' ability to perform effectively, is typically classified as a hindering job demand (Crawford et al., 2010; LePine et al., 2005; N. P. Podsakoff, LePine, & LePine, 2007). Hindering job demands can be contrasted to challenging job demands, which, while stressful, are seen as having the potential to promote personal growth and mastery and the rewards that come with both, and are thus held as obstacles to be overcome in order to learn and achieve (Crawford et al., 2010; LePine et al., 2005). Dealing with both hindering and challenging job demands requires increased effort, and is therefore shown to lead to strain (i.e., fatigue, burnout). However, only challenging job demands are supported to trigger the motivation needed engage proactively with demanding work situations (Crawford et al., 2010; LePine et al., 2005).

In contrast, employees facing hindering job demands such as role overload should be less motivated to expend effort on proactive activities, as these efforts could be seen as having a low probability of success or as using up the resources employees need to deal with the excessive strain and distress associated with job demands (Crawford et al., 2010; LePine et al., 2005). Indeed, meta-analytic research findings support that hindering job demands including role overload relate negatively with performance (LePine et al., 2005) and other important outcomes, including work engagement (Crawford et al., 2010), job satisfaction, and organizational commitment (N. P. Podsakoff et al., 2007), by way of increased strain and decreased motivation (LePine et al., 2005). In line with this research, we hypothesize that:

Hypothesis 1: Perceived role overload will relate negatively to job crafting.

On the other hand, meta-analytical research also suggests that employees' views of and responses to role overload could be more complicated in nature (Eatough et al., 2011; Gilboa et al., 2008). Research indicates that role overload could be viewed as a challenge, for example, if employees have proactively taken on more tasks and responsibilities (Gilboa et al., 2008) or if coupled with sufficient task autonomy (Ohly & Fritz, 2010). As such, researchers are advised to investigate moderating effects that could influence employees to view role overload as a challenge as opposed to a hindrance (Eatough et al., 2011; Gilboa et al., 2008). Accordingly, we turn our attention towards factors that could enable employees' to view role overload as a challenge that can be taken charge of through job crafting. Specifically, we look at employees' perceived adaptivity and leaders' need for structure as moderators of the role overload – job crafting relationship.

Perceived role overload, perceived adaptivity, and job crafting: a two-way interaction

Whereas proactivity reflects employees' self-initiated efforts to bring about change at work, adaptivity refers to the effectiveness with which employees deal with externally-initiated work changes (M. A. Griffin et al., 2007). While adaptivity is both theoretically and empirically supported to be distinct from proactivity (M. A. Griffin et al., 2007), there is growing evidence that adaptivity and proactivity are interrelated, and that adaptivity is needed for proactive behavior (Strauss et al., 2013), and job crafting in particular (Berg, Wrzesniewski, et al., 2010), to occur.

Building on resource-based theories of coping, Strauss et al. (2013) argue that adaptivity provides employees with the critical resources needed to enable proactive efforts in a demanding situation (in their research, organizational change). Notably, being adaptive is held to increase employees' self-efficacy to deal with change (Bandura, 1997), a resource that should enable employees' proactivity in the future. Indeed, self-efficacy, referring to an individual's perceived ability to carry out a specific course of action (Bandura, 1986), is held to be a particularly valuable resource in enabling proactive efforts, as it should facilitate optimism and contribute to the maintenance of a strong resource repertoire that is needed to deal effectively with work demands (Hobfoll, 2001). Such assertions are also evident in research calling attention to self-efficacy as a basis for the "can do" motivation that is needed to engage in proactive work behaviors (Parker, Bindl, & Strauss, 2010). Proactively changing a problem situation at work entails psychological risk. Therefore, employees need to feel that they have the ability to initiate change and deal with the consequences of change (i.e., have the resources to carry out and deal with the outcomes of such behavior) before they engage in proactive behaviors at work (Parker et al., 2010).

Building on this research, we predict that employees' perceived ability to deal with work change (referred to here as "perceived adaptivity") is a necessary for enabling job crafting efforts

in role overload situation. Similar change-oriented self-efficacy constructs have been shown to relate positively to adapting to new technologies (Hill, Smith, & Mann, 1987) and job changes (Cunningham et al., 2002), learning new work tasks and roles (R. F. Morrison & Brantner, 1992), and engaging in developmental activities (Noe & Wilk, 1993). Thus, there is reason to believe that employees with high levels of perceived adaptivity will have more experience dealing effectively with change than employees with lower levels of perceived adaptivity (Bandura, 1997). This should result in a stronger resource repertoire on which to initiate proactive job changes in the face of a demanding work situation (Strauss et al., 2013). Accordingly, we hypothesize:

Hypothesis 2: Perceived adaptivity moderates the negative relationship between perceived role overload and job crafting, such that the relationship is more positive when perceived adaptivity is high and more negative when perceived adaptivity is low.

Leaders' need for structure: A three-way interaction

Need for structure reflects a personal preference for predictable and unambiguous environments (Neuberg & Newsom, 1993). Individuals high in need for structure find "grey areas" troublesome and annoying, and thus experience discomfort in ambiguous situations (Thompson, Naccarato, Parker, & Moskowitz, 2001) or try to avoid these situations altogether (Felfe & Schyns, 2006). Need for structure is therefore very similar to earlier conceptualizations of intolerance for ambiguity (Budner, 1962; Frenkel-Brunswik, 1949), which includes a tendency to perceive ambiguous situations rigidly in black and white, feeling discomfort and anxiety in response to ambiguity, and preferring to avoid ambiguous situations (Grenier, Barrette, & Ladouceur, 2005). Need for structure also resonates closely, albeit inversely, with Pulakos et al.'s

(2000) conceptualization of “dealing with uncertain and unpredictable work situations”, which is identified as a core component of individual adaptivity (M. A. Griffin et al., 2007). Dealing with uncertain and unpredictable work situations reflects the ease and effectiveness with which an individual confronts and deals with uncertainty, and includes taking effective action when necessary despite unpredictable, uncertain, or ambiguous circumstances and not needing to have things black and white (Pulakos et al., 2000). Building on this research, we view leaders’ need for structure as a form of inadaptivity.

A basic premise of job crafting theory is that leaders affect the extent to which employees can craft their jobs. Leaders are argued to create work contexts that support job crafting by providing employees with sufficient opportunity (i.e., autonomy) to change the task and relational boundaries of their work (Berg, Dutton, & Wrzesniewski, 2008; Wrzesniewski & Dutton, 2001). On the other hand, close monitoring by one’s leader may hinder employees’ perceived opportunity to job craft (Wrzesniewski & Dutton, 2001). Prior research has focused on the structural aspects of work that shape leaders’ monitoring behaviors and, in turn, employees’ opportunity to job craft. In particular, Wrzesniewski and Dutton (2001) suggest that employees in jobs that are explicitly defined will have less opportunity to job craft, as leaders will exert more formalized control over employees tasks and time. In the present research, however, we suggest that leaders’ need for structure could also shape their monitoring behavior, resulting in a work climate that affects employee job crafting. Research indicates that leaders’ transmit their preferences through consistent behavior and practices, resulting in a specific work climate that shapes employee behavior (e.g., Dragoni, 2005; Dragoni & Kuenzi, 2012). In the following paragraphs, we draw on this research to elaborate how leaders’ level of need for structure (high versus low) should result in work climates that constrain or facilitate employees’ opportunity to

job craft in role overload situations and interacts with employees' perceived adaptivity to relate differentially to job crafting behavior.

High leader need for structure. Need for structure resonates favorably with a preference for close monitoring (Rietzschel, Slijkhuis, & Van Yperen, 2014) and clear planning and scheduling of work tasks (Ehrhart & Klein, 2001), behavior that should reduce employees' work autonomy and thus their opportunity to job craft. As such, we expect that leaders' high on need for structure will give rise to a controlling work climate that constrains employees' opportunity to job craft in role overload situations. We expect that leaders' high on need for structure will prevent job crafting among employees with both low and high levels of perceived adaptivity. In particular, employees low on perceived adaptivity would be unlikely to consider job crafting in this context, as they should perceive neither the ability nor the opportunity to do so. However, even employees high on perceived adaptivity would be constrained in their job crafting efforts, as leaders' preferences should create a strong situation (i.e., shared perceptions of the work context, Dragoni & Kuenzi, 2012) where there is less discretion in carrying out behavior based on individual preferences or capabilities (Mischel, 1973).

Low leader need for structure. On the other hand, when leaders' need for structure is low, we expect a more autonomous work climate where employees have greater opportunity to craft their jobs in the face of role overload demands. Employees low on perceived adaptivity should still be reluctant to engage in job crafting in role overload situations, even though they are provided with greater opportunity, due to their lack of self-efficacy in carrying out changes that could improve their work effectiveness (e.g., Parker et al., 2010; Strauss et al., 2013). However, given their expertise in dealing with change, employees high on perceived adaptivity should be more likely to engage in job crafting when paired with leaders' low on need for structure. In fact, the combination of low leaders' need for structure and high employees' perceived adaptivity

should create a unique condition in which both person and situational factors align to best facilitate job crafting behavior. Accordingly, the following hypothesis is made:

Hypothesis 3: Perceived role overload, employees' perceived adaptivity, and leaders' need for structure interact to relate to job crafting behavior. The relationship between perceived role overload and job crafting is strongest when employees' perceived adaptivity is high and leaders' need for structure is low.

Method

Sample

Our analyses are based on a two-wave panel field study of 47 leaders and 143 employees employed in a large Norwegian manufacturing firm. Data were collected using one leader survey (Time 1) and two employee surveys (Time 1 and Time 2). The time 1 leader and employee surveys were distributed to 76 leaders and 841 corresponding employees, respectively. A total of 60 (79%) leaders and 332 (40%) employees completed the time 1 survey. However, out of the 332 employee respondents at time 1, only 191 (58%) completed the time 2 survey. Matching the three data sets together yielded a final sample of 47 (62%) leaders and 143 (17%) employees.

To assess potential non-response bias, we conducted a mean comparison T-test between subordinates who had answered both the time 1 and 2 surveys (N_1=143) and subordinates who dropped out after the time 1 survey (N_2=189). Except education, no significant difference was observed for the subordinate demographic variables and the two predictor variables, perceived role overload and perceived adaptivity, which were measured at time 1. Job crafting was measured at time 2. Thus, mean comparison between the two groups could not be conducted. For education, individuals who completed both the time 1 and 2 surveys reported a slightly higher

level of education (mean=3.28) than individuals who dropped out after the time 1 survey (mean=2.88). This signifies that on average the two groups of individuals had obtained high school or higher diploma education after high school. Although statistically these two groups demonstrated a significant difference in education, the mean difference was relatively small (mean difference = .40). Secondly, the meaning of the difference was also insignificant (high school versus higher diploma, the latter or which is still below the level of a bachelor's degree). Therefore, we considered the mean difference between the two groups not to be substantial enough to have an impact on our results and concluded that the threat of potential non-response bias was low.

Of the leaders included in the final data set, 4 (8.5%) were female and 37 (78.7%) were male (6 respondents, or 12.8%, did not report their gender) with a collective mean age of 50.5 years (SD = 7.72). Several leaders had obtained a bachelor's (23%) or master's degree (21%). On average, leaders' organizational tenure was 29 years (SD = 8.25). The employee sample included 22 (15.4%) females and 120 (83.9%) males (1 respondent (0.7%) did not report his/her gender), with a collective mean age of 47.3 years (SD = 8.51). The majority of employees had obtained a junior- (26%) or senior-level (27%) of high school education (10 and 13 years of formal schooling, respectively), while a minority had obtained a higher diploma (15%), bachelor's (9%), or master's degree (17%). The mean organizational tenure for employees was 22 years (SD = 10.58).

Measures

The study variables were measured using three surveys (i.e., time 1 leader survey, and time 1 and time 2 employee surveys). The independent variable (employees' perceived role overload), individual-level moderating variable (employees' perceived adaptivity), and control

variables (employees' gender, age, education, organizational tenure, and leader-employee dyadic tenure) were measured with the time 1 employee survey. The group-level moderating variable (leaders' need for structure) was measured with the time 1 leader survey. The dependent variable (employees' job crafting behavior) was measured with the time 2 employee survey. By separating the measures between predictor, moderators, and outcome variables by time (six month interval) and different sources (leaders and employees), we aimed to avoid potential common method biases (P. M. Podsakoff, MacKenzie, & Podsakoff, 2012). In organizational psychology research, a six-month measurement interval has been demonstrated to be a good length in between survey measures, providing sufficient variance over time (e.g., Kelloway, Barling, & Helleur, 2000).

Perceived role overload was measured using a four-item scale by House (1980). These items refer to the perceived balance between employees' internal resources and external demands. Example items include: "How often do you feel that the amount of the work you do interferes with how well the work gets done?" and "How often do you feel that you have to try to satisfy too many different people at work?" The items were measured with a five point Likert scale (1 = never, 5 = always). Cronbach Alpha coefficient was .85.

Perceived adaptivity was measured using a five-item scale, modified from Griffin et al.'s (2007) behavioral measure of adaptive performance. These items referred to the respondents' felt ability to adjust to a changing work environment. Example items include: "It is easy for me to change my work activities when conditions demand it" and "It is easy for me to change my work role to accommodate changes in my team." The items were measured with a five point Likert scale (1 = agree, 5 = disagree). Cronbach Alpha coefficient was .82.

Job crafting was measured using an 11-item scale created by Wrzesniewski, Bartel, and Wiesenfeld (working paper). Respondents were asked to indicate the extent to which they engaged in job crafting activities. Similar to the Leana, et al. (2009) job crafting measure, several

items pointed directly to activities aimed at improving the functionality and efficiency of how one's work is executed. Example items include: "I have introduced new structures, technologies, or approaches to improve my efficiency in my work" and "I have changed the way I work with others in order to more effectively achieve my work goals." The items were measured using a five point Likert scale (1 = strongly disagree, 5 = strongly agree). Two items were removed due to poor loadings, according to the exploratory factor analysis (EFA). The Cronbach Alpha coefficient for the final nine items was .85.

Leaders' need for structure was measured using an 11- item scale from Neuberg and Newsom (1993) referring to several aspects of an individual's need for structure. Example items include: "It upsets me to go into a situation without knowing what I can expect from it" and "I become uncomfortable when the rules in a situation are not clear." The items were measured using a five point Likert scale (1 = agree, 5 = disagree). Cronbach Alpha coefficient was .81.

Control variables. We included employees' age, gender, education, and organizational tenure as well as job characteristics as control variables, as they have been found to be significantly related to employee extra role behaviors in other research (Zhang & Bartol, 2010). In addition, because this study addresses the social influence leaders have on their employees' job crafting behavior, we also controlled for leader-employee dyadic tenure and their task interdependence. Age, organizational tenure, and dyadic tenure were measured in true number. Gender was measured as a dichotomous variable, i.e., 0 for male and 1 for female. Education was measured with six educational levels (1 = elementary education, 9 years or lower; 2 = junior high school, 10 years; 3 = senior high school, 13 years; 4 = higher diploma, 14 years; 5 = bachelor degree, 16 years; 6 = master degree, 18 years or higher). Job characteristics and leader-employee task interdependence were measured using a five point Likert scale (1 = strongly disagree, 5 = strongly agree).

Analyses

One of the moderators in our study (leaders' need for structure) resides at a different level of analysis (group level) than the remaining variables that reside at the individual level. This implies that the data are nested within a macro structure, i.e., employees within groups that share the same leaders. Thus, there are potential shared variances among employee-rated measures due to non-independence (Snijders & Bosker, 2012) that could bias the standard error estimates. We therefore applied hierarchical linear modelling (HLM) (Bryk & Raudenbush, 1992) to test the degree of interdependence between groups. To do so, we set leaders as the level 2 unit and job crafting as the outcome variable to run the null hypothesis test without any predictors in the model. The intraclass correlation (ICC) was .004, which was relatively small. Nevertheless, as the HLM technique is recommended to provide more conservative estimations (Hox, 2010), we proceeded to test our hypotheses using HLM software.

Our statistical model involves a set of regression equations nested in two levels: level 1 at the employee (individual) level of analysis and level 2 at the leader (group) level of analysis. All independent variables were grand mean centered to guard against potential multicollinearity and potential effects derived from the correlations between random intercepts and random slopes in a multilevel model (Bickel, 2007). With regards to sample size, there are no standard rules of thumb. While some recommend the number of groups (level 2 units) not to be less than 50 (Hox, 2010), other studies have shown that a number of groups above 30 provides satisfactory variance estimates. Since we had 47 leaders in our level 2 unit, we consider the level 2 sample size to be reasonable to carry out the multilevel analyses.

Hypothesis 1 and 2 involve variables at level 1. Hypothesis 1 predicts that perceived role overload will relate negatively to employees' job crafting behavior. This hypothesis will be supported if the regression coefficient between perceived role overload and job crafting is

negative and significant. Hypothesis 2 posits that employees' perceived adaptivity moderates the perceived role overload – job crafting relationship, such that the relationship is positive when employees' perceived adaptivity is high and more negative when employees' perceived adaptivity is low. The moderating hypothesis will be supported if the interaction term (i.e., perceived role overload x employees' perceived adaptivity) is positive and significant. We have applied Preacher, Curran, and Bauer's (2006) procedure to examine the simple slopes at high and low levels of employees' perceived adaptivity.

Hypothesis 3 considers a cross-level, three-way interaction (c.f., Kath, Swody, Magley, Bunk, & Gallus, 2009). Hypothesis 3 posits that leaders' need for structure at level 2 moderates the moderated relationship between perceived role overload, employees' perceived adaptivity, and job crafting at level 1. A significant three-way interaction term (i.e., employees' perceived role overload x employees' perceived adaptivity x leaders' need for structure) would support the hypothesis. Additionally, the hypothesis will be supported if the slope between employees' perceived role overload and job crafting is, as predicted, significantly positive when employees' perceived adaptivity is high and leaders' need for structure is low. We have applied Preacher et al.'s (2006) procedure to examine the simple slopes in the four conditions, namely (1) high employees' perceived adaptivity, high leaders' need for structure; (2) high employees' perceived adaptivity, low leaders' need for structure; (3) low employees' perceived adaptivity, high leaders' need for structure; and (4) low employees' perceived adaptivity, low leaders' need for structure.

Results

Table 1 displays the means, standard deviations, and correlations of all variables. The bivariate correlations indicate that employee age is marginally negatively correlated with perceived role overload (r = -.12, p < .10). Female respondents reported higher levels of perceived adaptivity than male respondents (r = -.19, p < .05). Moreover, employee education (r

= .16, $p < .05$), task interdependence ($r = .26$, $p < .01$), job characteristics ($r = .22$, $p < .01$), and employees' perceived adaptivity ($r = .26$, $p < .01$) are all positively correlated with job crafting behavior. Dyadic tenure between leaders and employees was not found to be correlated with any of the predicting, moderating, or outcome variables.

Insert Table 1 about here

EFA results. To investigate the discriminant validity of the constructs, an exploratory factor analysis was run using principal component analysis with varimax rotation. The result suggested a four factor model, as expected. Two of the item loadings in the leaders' need for structure factor were below what is recommended (loadings < .40; Hair, Black, Babin, Anderson, & Tatham, 2010). In addition, two job crafting items reported loadings below this threshold. A second EFA was run without these four items. The remaining items loaded adequately (perceived role overload >.78; employees' perceived adaptivity >.70; job crafting >.44; leaders' need for structure >.41) on their respective factors, supporting the discriminant validity of the four constructs studied.

Hypotheses testing. Next, we conducted cross-level regression analyses to test our hypotheses. Hypothesis 1 proposes that the relationship between perceived role overload and job crafting is negative. We regressed job crafting on perceived role overload together with the control variables. As depicted in Table 2, the posited relationship was negative and significant (-.19, $p < .05$). Hypothesis 1 is thus supported. We then introduced employees' perceived adaptivity and its interaction with perceived role overload (i.e., perceived role overload x employees' perceived adaptivity) to the model to test the two-way interaction hypothesis (hypothesis 2). Specifically, hypothesis 2 posits that the negative relationship between perceived

role overload and job crafting is positive when employees' perceived adaptivity is high and negative when employees' perceived adaptivity is low. The results reveal that employees' perceived adaptivity was not significantly related to job crafting (.17, $p > .05$). The interaction between employees' perceived role overload and their perceived adaptivity was positive (.22) and marginally significant with a *p*-value less than .10. However, the increase of explained variance after including the moderator and the interaction term was not significant ($\Delta \chi^2 = 1.34$, *n.s.*). We further inspected the moderating pattern by testing the simple slopes at high and low levels of employees' perceived adaptivity (Dawson & Richter, 2006), using one standard deviation (.66) above and below, respectively. As depicted in Table 2, the simple slope of the perceived role overload – job crafting relationship was negative, but non-significant when employees' perceived adaptivity was high (-.06, $p > .05$). On the other hand, the slope between perceived role overload and job crafting was negative and significant when employees' perceived adaptivity was low (-.35, $p < .01$), as illustrated in Figure 2. Although the results indicate that the relationship between employees' perceived role overload and their job crafting behavior seems to differ when their perceived adaptivity is high versus low, the moderation did not yield sufficient statistically significance. Thus, hypothesis 2 is not supported.

Insert Table 2 about here

Insert Figure2 about here

As a third step, we added leaders' need for structure, its interaction term with perceived role overload (i.e., perceived role overload x leaders' need for structure), and the interaction with

employees' perceived adaptivity (i.e., employees' perceived adaptivity x leaders' need for structure), and the three-way interaction term (i.e., perceived role overload x employees' perceived adaptivity x leaders' need for structure) into the equation. The results, shown in Table 2, reveal that the three-way interaction of perceived role overload, employees' perceived adaptivity and leaders' need for structure was significant (-.70, $p < .01$).

To further inspect the pattern of the interaction, we followed Dawson and Richter's (2006) procedure to probe the relation of perceived role overload and employees' perceived adaptivity on job crafting for each subgroup of leaders' need for structure (low and high), separately. We also applied Preacher et al.'s (2006) procedure to examine the simple slopes in each condition. As reported in Table 2, the slope between perceived role overload and job crafting when employees' perceived adaptivity was high and leaders' need for structure was low was significantly positive (slope = .35, $p < .05$), whereas the slopes in the other three conditions were negative, as illustrated in Figure 2. Specifically, the slope was significantly negative when employees' perceived adaptivity was low and leaders' need for structure was low (slope = -.70, $p < .01$). The slopes when employees' perceived adaptivity was low and leaders' need for structure was high (slope = -.24, $p < .10$) and when both employees' perceived adaptivity and leaders' need for structure were high (slope = -.13, $p > .05$) were also negative, but were marginally significant and non-significant, respectively. The increase in explained variance of the three-way interaction model was significant ($\Delta \chi^2 = 8.82$, $p < .01$). Hypothesis 3 is therefore supported.

Insert Figure 2 about here

Discussion

The purpose of the present research was to investigate the factors that facilitate job crafting in work contexts characterized by role overload where this proactive behavior could lead to more productive job functioning. Whereas job crafting is advocated in other research as a means to proactively deal with challenging job demands (e.g., Petrou et al., 2012; Tims et al., 2012), we hypothesized that perceived role overload, as a hindering job demand, would relate negatively to job crafting without sufficient facilitation. We took an interactionist perspective in predicting that employees' job crafting behavior in role overload situations would depend on individual- and socially-embedded moderators, namely employees' perceived adaptivity and leaders' need for structure. Among our key findings is support for the hypothesis that perceived role overload, in isolation, relates negatively to job crafting. Further, employees' level of perceived adaptivity was not found to significantly moderate the negative relationship between perceived role overload and job crafting in a positive direction, as hypothesized. On the other hand, our three-way interaction hypothesis was supported, as the relationship between perceived role overload and job crafting was strongest when employees' perceived adaptivity was high and leaders' need for structure was low. Thus, our overall findings suggest that the job crafting that could help employees take charge of role overload depends on the interactive fit between an employee's own adaptive capabilities and the adaptive preferences of the leader they are working with.

While job crafting is held to be a proactive means to deal with job demands (Tims et al., 2012) and improve job functioning (Leana et al., 2009), few empirical studies have investigated job crafting in demanding work situations that impact job effectiveness. The research that does exist supports that employees' job crafting is positively related to challenging job demands associated with achievement and high performance (e.g., Daniels et al., 2013; Petrou et al., 2012). Our research extends this literature by investigating job crafting in the context of job demands

perceived as hindering, or highly threatening to employees' ability to perform effectively. Our findings of a negative direct relationship between perceived role overload and job crafting (hypothesis 1) contributes consistently to research in this area, as both theory and empirical evidence suggests that employees should be less likely to engage in proactive behavior in the context of hindering job demands, as such efforts should be viewed as having a low probability of success or sapping the basic resources needed to meet this demand (Crawford et al., 2010; LePine et al., 2005). Further, our research contributes to a greater understanding of the factors that could alter employees perceptions of role overload from an insurmountable hindrance to a challenge that is amenable to change (Eatough et al., 2011; Gilboa et al., 2008). Specifically, our findings show that proactive job crafting in role overload situations depends on employees' perceived adaptivity and their leaders' need for structure.

Thus, a second contribution of the present research is the extension of the "proactivity requires adaptivity" thesis advanced by Berg, Wrzesniewski, et al. (2010) in the aspirational job crafting literature to the realities of a demanding work context where complying with the requirements of a work role is only feasible by both adapting to and initiating change (c.f., M. A. Griffin et al., 2007). Employees' adaptivity is not only important for job crafting efforts aimed at creating a better fit with one's preferences and aspirations. Our findings indicate that adaptivity is also necessary for enabling employees' proactive crafting efforts in work situations where job demands may hinder productivity. In this regard, our findings resonate with research supporting adaptivity as a resource critical for enabling proactive behavior in the context of organizational demands (e.g., proactive voice behavior in the context of organizational change; Strauss et al., 2013). Future research investigating how adaptivity relates to other proactive behaviors in the context of varying job demands would help increase of our understanding of the breadth and boundary conditions of this synergistic relationship.

Third, our study extends the individual-centered "proactivity requires adaptivity" thesis across organizational levels, and in doing so provides empirical support for Berg, Wrzesniewski, et al.'s (2010) socially embedded account of job crafting. Notably, our findings show that job crafting in the context of high role overload is only fully enabled when employees' perceived adaptivity is high and leaders' need for structure is low. This indicates that employees' job crafting behavior is shaped by the adaptive preferences of the leaders they are assigned to work with, despite their own adaptive abilities. Further, even when employees themselves possess adequate adaptive abilities to autonomously job craft, they may be constrained in an inflexible working environment fostered by their leaders' need for structure.

Surprisingly, employee job crafting also appeared to be high when perceived role overload, employees' perceived adaptivity, and leaders' need for structure were all low. This finding is not altogether inconsistent with our hypothesizing, which implies that employees experiencing low role overload working for leaders with low need for structure should engage in more job crafting than employees' experiencing high role overload who are working for leaders with high need for structure. The unexpected element of this combination is that employees with low perceived adaptivity seem to engage in more job crafting than employees with high perceived adaptivity. One explanation for this finding is that the more autonomous work context facilitated by leaders' low need for structure provides a safe environment for employees to develop and master new competencies (Ames & Archer, 1988). Employees with low perceived adaptivity would be able to cultivate self-efficacy in these contexts by watching their leader deal effectively with change (i.e., vicarious learning) and through their own hands-on engagement in change-oriented activities (i.e., enactive mastery) (Bandura, 1986). In other words, in work contexts when perceived role overload and leaders' need for structure is low, employees with low perceived adaptivity should observe more adaptive leader behaviors and thus could engage in job

crafting in order to develop their own adaptive capabilities. On other hand, in the same work context (i.e., perceived role overload and leaders' need for structure both low), highly adaptive employees who already experience this competency may focus their mastery efforts elsewhere. Future research is needed to qualify such propositions.

Our findings contribute to recent research addressing how leaders facilitate proactive behavior through supportive mechanisms (e.g., by being available, offering encouragement, and not interfering with decisions and actions; Wu & Parker, 2014), or constrain proactivity through restrictive mechanisms (ego defensiveness and reduced voice solicitation; Fast, Burris, & Bartel, 2014). On one hand, our study indicates that employees' job crafting is facilitated when they are working with leaders who are less likely to engage in controlling, monitoring behaviors, a finding that is consistent with earlier research identifying autonomy as an antecedent of proactive behavior (e.g., Parker et al., 2010; Parker, Williams, & Turner, 2006) and job crafting, in particular (e.g., Petrou et al., 2012; Wrzesniewski & Dutton, 2001) . However, our findings also advance our understanding of how leaders' influence employees' proactive behavior and job crafting, in particular, beyond previous efforts. While the majority of extant research has looked at employees' perceptions of leader support as the antecedent of proactive behavior (e.g., M. A. Griffin, Parker, & Mason, 2010; Khilji & Wang, 2006; Leana et al., 2009; Wu & Parker, 2014), our research addresses how leaders' own self-rated preferences influence employees' proactive efforts at work. In doing so, our findings also extend prior research that has focused on how structural aspects of work shape leader behavior and, in turn, employees' opportunity to job craft (Wrzesniewski & Dutton, 2001), by identifying leaders' preferences for structure as a determinant of leader behavior and, in turn, a work climate that enables or restricts employees' job crafting behavior.

In this regard, our findings also contribute to the literature identifying how leaders shape their own behavior and the work climate to align with their personal attributes and preferences, and the influence this has on employee behavior. Research advanced by Dragoni and colleagues (2005; Dragoni & Kuenzi, 2012) supports that leaders engage in leadership behavior consistent with their own goal orientations, producing a work climate that influences their employees to adopt aligned goal perceptions. Our findings extend our knowledge of what leader preferences have the potential to influence employee outcomes, notably proactive behavior. Future research is advised to further investigate the influence leaders' need for structure has on shaping their own behavior and the work context, and how this, in turn, influences other important employee behaviors.

One assumption of the present research is that leaders' need for structure is consistent across time and work situations. However, it is possible that leaders can vary in their leadership experiences and individual abilities to adapt to work circumstances (Dragoni, 2005). Future research applying longitudinal designs would be needed to determine if and how variations in leaders' need for structure relates to their employees' job crafting. Further, while our focus on leaders' need for structure was driven by a desire for conceptual parsimony, this is perhaps only one of several leadership factors that could interact with employees' perceived adaptivity to facilitate job crafting. Future research extending this area of inquiry could investigate other aspects of leadership that could facilitate or constrain adaptive employees' job crafting efforts, both within and beyond the context of role overload demands. In addition, future research that addresses how and under what conditions other leader-level factors relate to employees' proactive behavior, particularly in combination with employee-level characteristics, would be valuable for increasing our understanding of the ways in which leaders facilitate or constrain proactivity.

Implications for practice

Our results provide evidence of the influence, perhaps unintentional, that leaders' preferences for structure could have on their employees' opportunity to engage in activities that could improve hindering job demands. Specifically, the way in which leaders inherently deal with ambiguous and uncertain work situations could influence employees' efforts to deal with the demanding work situations they face. Accordingly, our research has important implications for leader selection and development in organizations facing high demands where adaptivity and proactivity are valued. Foremost, organizations must ensure that the right candidates are placed in leader positions in the first place. Measuring candidates' need for structure in the selection process would provide one means of assessing if an individual has inadaptive preferences. More traditional personality measurements could also provide insight into a candidate's adaptive nature. In particular, the achievement-oriented facets of conscientiousness (competence, self-discipline, achievement striving) have been found to have a positive association with adaptivity (B. Griffin & Hesketh, 2005; LePine, Colquitt, & Erez, 2000; Pulakos et al., 2002). Further, leadership development programs need to assist leaders in developing their capabilities of becoming aware of and reflecting upon their own preferences for dealing with ambiguity and uncertainty. Coaching or mindfulness training (Carlson, 2013) that emphasizes self-awareness and self-monitoring regarding one's preferences for close monitoring and clear planning and scheduling of work tasks could be undertaken to serve such purpose. The present research indicates that the leaders who engage in less monitoring and boundary setting behavior will be more effective in enabling employees to job craft in role overload situations. Thus, leaders high on need for structure should be guided on how to provide their employees with the autonomy needed to engage proactively in demanding work contexts. Research also supports that adaptivity can be learned with appropriate training (e.g., Bell & Kozlowski, 2008). Accordingly, training or

other relevant developmental experiences could be offered to leaders who struggle with inadaptivity as a way to improve their ability to deal with ambiguity and uncertainty. Finally, as self-monitors adapt their leadership behaviors to be consistent with those encouraged by senior management (Sosik & Potosky, 2002), parallel efforts to promote a work climate for leader adaptivity by, for example, tailoring the human resource practices that are used to develop and appraise leaders to clearly convey and support this expectation (Bowen & Ostroff, 2004) would be fruitful.

Our findings also support that inadaptive employees could still struggle with altering their work responsibilities and relationships when faced with the demands of role overload, even when they are working under adaptive leaders. Again, training and development interventions could be offered to these employees as a way to increase their adaptivity and thus enable job crafting. Training and developmental opportunities aimed at gaining and becoming more competent in dealing with new and changing work experiences would be particularly useful in this context, as organizational interventions aimed at enhancing mastery and providing vicarious learning increase employees' self-efficacy to deal with such situations (Bandura, 1986).

Limitations

A number of limitations should be considered when interpreting our findings. First, while we did follow expert advice in using a cross-lagged research design (P. M. Podsakoff et al., 2012), we are not in a position to draw inferences of causality or rule out the possibility of reverse causality between our independent and dependent variables (Pedhazur & Schmelkin, 1991; Shadish, Cook, & Campbell, 2002). Future longitudinal or experimental research would be required to test the causal relationship between perceived role overload and job crafting.

Second, our results could be inflated by common method biases, as employee responses

were used for three of the four study variables. However, both the role overload and employee adaptivity constructs reflect employee perceptions, which by their nature require self-rated measures. Research also supports that job crafting behavior could be difficult for leaders or co-workers to observe directly (Berg, Wrzesniewski, et al., 2010). We therefore collected data on employees' job crafting through self-reported measures, in-line with other research investigating this behavior (Daniels et al., 2013; Petrou et al., 2012; Tims, Bakker, & Derks, 2013). In light of these restrictions, however, we did prioritize collecting data on the self-reported variables at two different time points in order to reduce the likelihood of common-methods variance among the measures (P. M. Podsakoff et al., 2012). Further, our results could be affected by non-response bias, as we found that employees who responded to both the time 1 and time 2 employee surveys had a slightly higher level of education than employees who did not respond to the time 2 employee survey. However, both the mean difference and the meaningfulness of the difference was small, with respondents being slightly more likely than non-respondents to have obtained a "higher diploma" after high school, but not a bachelor's or higher-level degree.

Finally, data were obtained from employees in a Norwegian manufacturing firm, thus limiting the generalizability of our findings to other work contexts and national cultures. However, given most of the previous job crafting studies was conducted among service professionals, such as nurses, teachers, postal service professionals, and hotel service workers, the findings of the present study contribute the overall generalizability of job crafting research.

Conclusion

While proactively altering aspects of one's work is argued to help employees deal with job demands (e.g., Tims et al., 2012) and improve job functioning (Leana et al., 2009), we currently know very little about employees' job crafting efforts in the context of job demands such as role overload that significantly hinder job efficiency and effectiveness. The present study

takes an interactionist perspective in investigating the relationship between perceived role overload and employees' job crafting behavior by identifying likely individual- and socially-embedded moderators that facilitate this relationship. Specifically, we draw on the "proactivity requires adaptivity" thesis and the socially embedded account of job crafting advanced by Berg, Wrzesniewski, and colleagues (2010) to investigate employees' perceived adaptivity and leaders' need for structure as factors that interact to influence employees' job crafting behaviors in role overload situations. Our findings show that employees' perceived adaptivity alone does not significantly moderate the negative relationship between perceived role overload and job crafting in a positive direction. Rather, the relationship between perceived role overload and job crafting is only positive when employees' perceived adaptivity is high and leaders' need for structure is low. Thus, our study contributes to both the "proactivity requires adaptivity" thesis and social embedded account of job crafting advanced by Berg, Wrzesniewski, and colleagues (2010), and extends it to the reality of a demanding work context where complying with the requirements of a work role requires both adapting to and initiating change. Our findings also underline the influential role that leaders play in facilitating employee proactivity in demanding work situations. In particular, leaders' preferences for structure are found to have a significant influence on employees' proactive efforts to improve job functioning in demanding work situations, even when employees themselves possess adequate adaptive resources to engage autonomously in such behavior.

References

Ames, C., & Archer, J. (1988). Achievement goals in the classroom: students' learning strategies and motivation processes. *Journal of Educational Psychology, 80*(260-267).

Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: Freeman.

Bell, B. S., & Kozlowski, S. W. J. (2008). Active learning: effects of core training design elements on self-regulatory processes, learning, and adaptability. *Journal of Applied Psychology, 93*, 296-316.

Berg, J. M., Dutton, J. E., & Wrzesniewski, A. (2008). What is job crafting and why does it matter? Ann Arbor, MI: University of Michigan Ross School of Business.

Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: crafting work and leisure in pursuit of unanswered occupational callings. *Organizational Science, 21*, 973-994.

Berg, J. M., Wrzesniewski, A., & Dutton, J. E. (2010). Perceiving and responding to challenges in job crafting at different ranks: when proactivity requires adaptivity. *Journal of Organizational Behavior, 31*, 158-186.

Bickel, R. (2007). *Multilevel analysis for applied research: it's just regression!* New York, NY: The Guilford Press.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: the role of the "strength" of the HRM system. *Academy of Management Review, 29*, 203-221.

Bryk, A., & Raudenbush, S. W. (1992). *Hierarchical linear models: applications and data analysis methods*. Newbury Park, CA: Sage.

Budner, S. (1962). Intolerance for ambiguity as a personality variable. *Journal of Personality, 30,* 29-50.

Carlson, E. N. (2013). Ovrecoming the barriers to self-knowledge: mindfulness as a path to seeing yourself as who you really are. *Perspectives on Psychological Science, 8,* 173-186. doi:10.1177/1745691612462584

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.

Cunningham, C. E., Woodward, C. A., Shannon, H. S., MacIntosh, J., Lendrum, B., Rosenbloom, D., & Brown, J. (2002). Readiness for organizational change: a longitudinal study of workplace, psychological and behavioral correlates. *Journal of Occupational and Organizational Psychology, 75,* 377-392.

Daniels, K., Beesley, N., Wimalasiri, V., & Cheyne, A. (2013). Problem solving and well-being: exploring the instrumental role of job control and social support. *Journal of Management, 39,* 1016-1043. doi:10.1177/0149206311430262

Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: development and application of a slop different test. *Journal of Applied Psychology, 91,* 917-926.

Dragoni, L. (2005). Understanding the emergence of state goal orientation in organizational work groups: the role of leadership and multilevel climate perceptions. *Journal of Applied Psychology, 90,* 1084-1095.

Dragoni, L., & Kuenzi, M. (2012). Better understanding work unit goal orientation: its emergence and impact under different types of work unit structure. *Journal of Applied Psychology, 97,* 1032-1048.

Eatough, E. M., Chang, C.-H., Miloslavic, S. A., & Johnson, R. E. (2011). Relationships of role stressors with organizational citizenship behavior: a meta-analysis. *Journal of Applied Psychology, 96,* 619-632.

Ehrhart, M. G., & Klein, K. J. (2001). Predicting follower's preferences for charismatic leadership: the influence of follower values and personality. *The Leadership Quarterly, 12*, 153-179.

Fast, N. J., Burris, E. R., & Bartel, C. A. (2014). Managing to stay in the dark: managerial self-efficacy, ego defensiveness, and the aversion to employee voice. *Academy of Management Journal, 57,* 1013-1034.

Felfe, J., & Schyns, B. (2006). Personality and the perception of transformational leadership: the impact of extraversion, neuroticism, personal need for structure, and occupational self-efficacy. *Journal of Applied Social Psychology, 36*, 708-739.

Frenkel-Brunswik, E. (1949). Intolerance of ambiguity as an emotional and perceptual personality variable. *Journal of Personality, 19*, 108-143.

Gilboa, S., Shirom, A., & Fried, Y. (2008). A meta-analysis of work demand stressors and job performance: examining main and moderating effects. *Personnel Psychology, 61*, 227-271.

Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. In B. M. Staw & A. P. Brief (Eds.), *Research in organizational behavior* (Vol. 28). New York: Elsevier.

Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: the rise of relational and proactive perspectives. *Academy of Management Annals, 3,* 317-375.

Grenier, S., Barrette, A., & Ladouceur, R. (2005). Intolerance of uncertainty and intolerance of ambiguity: similarities and differences. *Personality and Individual Differences, 39*, 593-600.

Griffin, B., & Hesketh, B. (2005). Are conscientious workers adaptable? *Australian Journal of Management, 30*, 245-259.

Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: positive behavior in uncertain and interdependent contexts. *Academy of Management Journal, 50,* 327-347.

Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: a longitudinal study. *Journal of Applied Psychology, 95*, 174-182.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis, A Global Perspective*. Upper Saddle River, NJ: Pearson Education Inc.

Hill, T., Smith, N. D., & Mann, M. F. (1987). Role of efficacy expectations in predicting the decision to use advanced technologies: the case of computers. *Journal of Applied Psychology, 72*, 307-313.

Hobfoll, S. (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.

House, J. S. (1980). *Occupational stress and the mental and physical health of factory workers*. Ann Arbor: University of Michigan, Institute for Social Research, Survey Research Center.

Hox, J. J. (2010). *Multilevel analysis: techniques and applications* (2 ed.). New York: Routledge.

Kath, L. M., Swody, C. A., Magley, V. J., Bunk, J. A., & Gallus, J. A. (2009). Cross-level, three-way interactions among work-group climate, gender, and frequency of harassment on morale and withdrawal outcomes of sexual harassment. *Journal of Occupational and Organizational Psychology, 82*, 159-182.

Kelloway, E. K., Barling, J., & Helleur, J. (2000). Enhancing transformational leadership: the role of training and feedback. *Leadership and Organization Development Journal, 21*, 145-149.

Khilji, S. E., & Wang, X. (2006). 'Intended' and 'implemented' HRM: The missing linchpin in strategic human resource management research. *The International Journal of Human Resource Management, 17*, 1171-1189.

Leana, C., Appelbaum, E., & Shevchuk, I. (2009). Work processes and quality of care in early childhood education: the role of job crafting. *Academy of Management Journal, 52*, 1169-1192.

LePine, J. A., Colquitt, J. A., & Erez, A. (2000). Adaptability to changing task contexts: effects of general cognitive ability, conscientiousness, and openness to experience. *Personnel Psychology, 53*, 563-593.

LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor-hindrance stressor framework: an explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal, 48*, 764-775.

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review, 80*, 252-283.

Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: extrarole efforts to initiate workplace change. *Academy of Management Journal, 42*, 403-419.

Morrison, R. F., & Brantner, T. M. (1992). What enhances or inhibits learning a new job? A basic career issue. *Journal of Applied Psychology, 77*, 926-940.

Neuberg, S. L., & Newsom, J. T. (1993). Personal need for structure: individual differences in the desire for simple structure. *Journal of Personality and Social Psychology, 65*, 113-131.

Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of Applied Psychology, 78*, 291-302.

Ohly, S., & Fritz, C. (2010). Work characteristics, challenge appraisal, creativity, and proactive behavior: a multi-level study. *Journal of Organizational Behavior, 31*, 543-565.

Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: the future of job design research. *Journal of Organizational Behavior, 31*, 463-479.

Oreg, S. (2006). Personality, context, and resistance to organizational change. *European Journal of Work and Organizational Psychology, 15*, 73-101.

Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: a model of proactive motivation. *Journal of Management, 36*, 827-856.

Parker, S. K., & Collins, C. G. (2010). Taking stock: integrating and differentiating multiple proactive behaviors. *Journal of Management, 36*, 633-662.

Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behaivor at work. *Journal of Applied Psychology, 91*, 636-652.

Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: an integrated approach*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Heland, J. (2012). Crafting a job on a daily basis: contextual correlates and the link to work engagement. *Journal of Organizational Behavior, 33*, 1120-1141.

Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *Journal of Applied Psychology, 92*, 438-454.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63,* 539-569. doi:10.1146/annurev-psych-120710-100452

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437-448.

Pulakos, E. D., Arad, S., Donovan, M. A., & Plamondon, K. E. (2000). Adaptability in the workplace: development of a taxonomy of adaptive performance. *Journal of Applied Psychology, 85*, 612-624.

Pulakos, E. D., Schmitt, N., Dorsey, D. W., Arad, S., Hedge, J. W., & Borman, W. C. (2002). Predicting adaptive performance: further tests of a model of adaptability. *Human Performance, 15*, 299-323.

Rietzschel, E. F., Slijkhuis, M., & Van Yperen, N. W. (2014). Close monitoring as a contextual stimulator: how need for structure affects the relation between close monitoring and work outcomes. *European Journal of Work and Organizational Psychology, 23*, 394-404.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Belmont, CA: Wadsworth.

Snijders, T., & Bosker, R. (2012). *Multilevel analysis: an introduction to basic and advanced multilevel modeling* (2nd ed.). Thousand Oaks, CA: Sage.

Sosik, J. J., & Potosky, D. (2002). Adaptive self-regulation: meeting others' expectations of leadership and performance. *The Journal of Social Psychology, 142*, 211-232.

Strauss, K., Griffin, M. A., Parker, S. K., & Mason, C. M. (2013). Building and sustaining proactive behaviors: the role of adaptivity and job satisfaction. *Journal of Business Psychology*. doi:10.1007/s10869-013-9334-5

Thompson, M. M., Naccarato, M. E., Parker, K. C. H., & Moskowitz, G. B. (2001). The personal need for structure and personal fear of invalidity measures: historical perspectives, current applications, and future directions *Cognitive social psychology: the Princeton symposium on the legacy and future of social cognition* (pp. 19-39). Mahwah, NJ: Lawrence Erlbaum.

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior, 80*, 173-186.

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.

Wrzesniewski, A., Bartel, A., & Wiesenfeld, B. (working paper). Remoteness as a resource: the impact of virtual work on job crafting.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: revisioning employees as active crafters of their work. *Academy of Management Review, 26*, 179-201.

Wu, C.-H., & Parker, S. K. (2014). Leader support in facilitating proactive work behavior: a perspective from attachment theory. *Journal of Management*. doi:10.1177/0149206314544745

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*, 107-128.

Table 1

Means, Standard Deviations, Correlations, and Alpha Reliabilities among Variables

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1. Age[E]	45.83	8.80	-										
2. Gender[E]	.83	.37	.21**	-									
3. Education[E]	3.15	1.45	-.12	-.13*	-								
4. Organizational tenure[E]	21.87	10.61	.77**	.19**	-.30**	-							
5. Dyadic tenure[E]	3.68	3.60	.17*	-.01	-.13	.23**	-						
6. Leader-employee task interdependence	3.81	.54	.00	.03	.02	.05	-.13*	(.81)					
7. Job characteristic	3.58	.49	.05	-.04	.26**	.01	-.14*	.36**	(.60)				
8. Perceived role overload[E], time 1	3.02	.86	-.12†	-.02	.11	-.09	.02	-.04	-.13*	(.85)			
9. Employees' perceived adaptivity[E], time 1	3.40	.66	.03	-.19*	.01	-.01	-.02	.14	.37**	-.17*	(.82)		
10. Leaders' need for structure[L], time 1	3.12	.51	-.23**	-.05	-.11	-.17*	.06	-.06	-.23**	.11	-.01	(.81)	
11. Job crafting[E], time 2	3.13	.52	.06	-.01	.16*	.07	-.07	.26**	.22**	-.08	.26**	-.14†	(.85)

N(employees) = 143; N(leaders) = 47.
[E] indicates variables rated by employees; [L] indicates variables rated by leaders.
For the correlation analysis, leaders' ratings of need for structure were disaggregated to each respective employee.
Alpha coefficients are in parentheses on the diagonal.
† $p < .10$, * $p < .05$, ** $p < .01$.

Table 2

Cross-level Regression Analyses Results

Variables	Fixed Effects Coefficients Job Crafting		
Intercept	3.15(.43)**	3.05(.43)**	3.11(.32)**
Age[E]	.00(.01)	-.00(.01)	-.01(.01)
Gender[E]	-.07(.22)	-.02(.22)	-.03(.17)
Education[E]	.05(.06)	.03(.06)	-.01(.06)
Organizational tenure[E]	.02(.01) †	.02(.01)*	.03(.01)**
Dyadic tenure[E]	-.01(.01)	-.02(.02)	-.03(.02)
Leader-employee task interdependence[E]	.45(.16)**	.38(.17)*	.21(.16)
Job characteristic[E]	-.12(.19)	-.23(.21)	-.24(.20)
Perceived role overload (RO)[E]	-.19(.09)*	-.20(.10)*	-.18(.07)*
Employees' perceived adaptivity (PA)[E]		.17(.13)	.18(.11)
RO x PA[E]		.22(.11) †	.44(.11)**
Leaders' need for structure (NFS)[L]			-.49(.11)**
RO x NFS[E&L]			-.01(.12)
PA x NFS[E&L]			-.11(.17)
RO x PA x NFS[E&L]			-.70(.18)**
Model deviance χ^2	37.55	36.21	27.39
$\Delta \chi^2$		1.34	8.82**
	Simple slopes tests:	High PA -.06 (*n.s.*)	(1): -0.13 (*n.s.*)
		Low PA -.35**	(2): 0.35*
			(3): -0.24 †
			(4): -0.70**

Note. N(employee) = 143; N(leader) = 47. Fixed effects coefficients and their robust standard errors are shown in each equation. [E] indicates variables rated by employees; [L] indicates variables rated by leaders.

[i]Slopes (1): Employees' perceived adaptivity high, leaders' need for structure high;
(2): Employees' perceived adaptivity high, leaders' need for structure low;
(3): Employees' perceived adaptivity low, leaders' need for structure high;
(4): Employees' perceived adaptivity low, leaders' need for structure low.

†$p < 0.10$, *$p < 0.05$, **$p < 0.01$.

Figure 1

The Conceptual Model

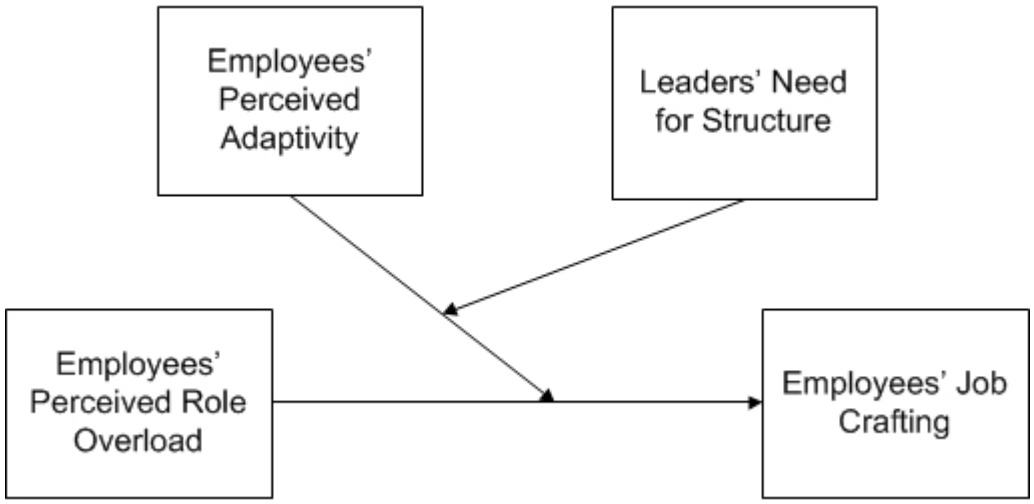

Figure 2

Two-way Interaction between Perceived Role Overload and Employees' Perceived Adaptivity

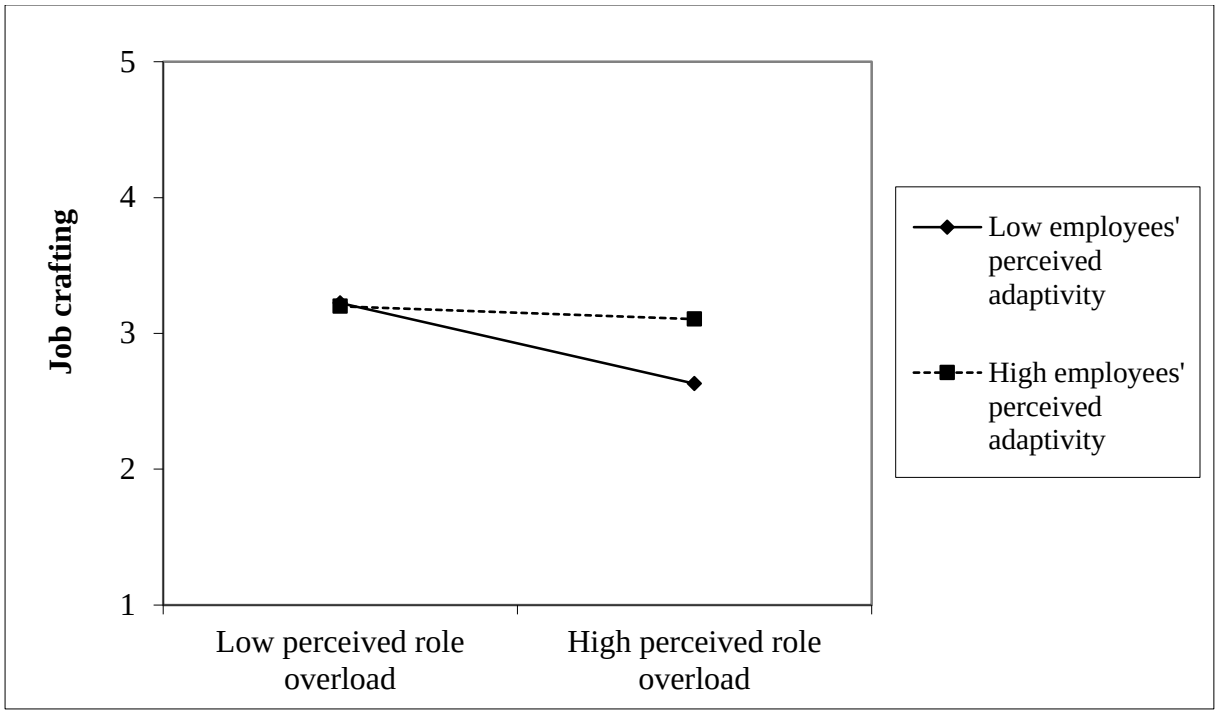

Figure 3

Three-way Interactions between Perceived Role Overload, Employees' Perceived Adaptivity, and Leaders' Need for Structure