The function of managers’ job crafting in their subordinates’ role overload and role ambiguity.

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Abstract

This study builds on the literature from the research area of job crafting and job demands-resources perspective. It advances the current knowledge of the topic of job crafting with its possible disadvantages by taking a perspective of a person subordinate towards the one who engages in job crafting behaviours. The results of the conducted study do not signify the relationship between the perception of managers’ job crafting behaviours and how these affect subordinates’ role. However, when job crafting behaviours are split into subcategories, they affect subordinates’ role overload and ambiguity differently than when measured as a single variable. Additionally, subordinates with proactive personality tend to cope better with handling role overload, but worse with handling role ambiguity. Limitations to the study as well as suggestions for further research and practical implications discussing work-related stress management are discussed.
Introduction

Job crafting emerged as means to benefit a person by making desirable changes in their job design, while maximising the performance (Bruning & Campion, 2018). The self-initiated change to one’s job design has been found to correspond with their well-being (Rudolph et al., 2017), work engagement (Harju et al., 2016), better adaptation to change (Petrou et al., 2016), and overall job performance (Bakker et al., 2012). Since job crafting refers to employee’s own actions in respond to their needs, it is a bottom-up approach to job design, which was traditionally considered to be top-down. Nowadays, employees are encouraged to “craft” their own positions and to self-manage, while flexible working patterns appear more and more often in job descriptions.

The problem may occur when a person who designs their own job is in charge of other employees’ day-to-day tasks. As part of their job crafting, a person may engage in avoidance of certain tasks and delegate them to others, which will disturb a person who the task is delegated to. Work-related stress is defined as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus & Folkman, 1984). It is evoked by potentially any situation, which is uncontrollable, uncertain, chronic or novel (Lazarus & Folkman, 1984), and thus the link between manager’s job crafting and their subordinates’ role overload and ambiguity.

Task delegation can, in fact, constitute for a positive contact between a manager and an employee (Schriesheim et al., 1998), or even empower the subordinate, as “empowerment is primarily a result of a leader’s use of delegation or consultation with individual subordinates.” (Yukl, 2013; p. 413). Hence, the nature of delegation – why, when, what kind, and to whom, managers delegate their tasks, is important to distinguish when establishing whether it can be harmful to individuals and organisations.

The current study is focused on the possibility of managers to delegate unpleasant tasks as part of their job crafting behaviour, or not communicating information about the delegated tasks sufficiently, to their subordinates, which may create a
strain in the subordinate’s role. While a supportive relationship with their manager can encourage one’s proactive behaviours, limited communication between the two or too much of control, may hinder them, as subordinates are uncertain about the expectations made of them (Bakker & Demerouti, 2007; Wong et al., 2017).

Proactive personality (e.g. Bakker et al., 2012), is believed to enhance employee’s job crafting behaviours, which help in coping with job demands, workload, and adaptation to change. Thus, employees should not be negatively affected by additional tasks given by a manager, if they exhibit proactivity. Nevertheless, proactivity is also dependent on subordinate’s autonomy in decision making (as shown in Deci et al., 2017), and the high-quality of leader-member exchange (as shown is Graen & Uhl-Bien, 1995), which points to the fact that relationship between a manager and their subordinate not only may cause subordinate’s role overload and role ambiguity, but also limit their coping strategies.

The Health and Safety Executive introduced six Management Standards (HSE, n.d.) – the areas of work design that need to be properly managed with a view to handle work-related stress. These include: demands (workload, work patterns and environment that employees are able to cope with), control (employees have a say in the way they work), support (encouragement and resources provided by the organisation, management and co-workers), relationships (avoiding conflict and unacceptable behaviour), role (complete understanding of one’s role within the organisation), change (clear communication and engagement of employees in an undergoing organisational change). Stress, having a direct effect on an employee’s well-being and health, indirectly affects the organisation that they work for, its schedule and, presumably, effectiveness. This paper will make a reference to all of these areas by exploring the connection between managers’ behaviour with their subordinates’ work welfare and will point to a new cause of work-related stress.

Due to the growing popularity of job crafting, and continuous search for new solutions to work-related stress, the present study aims at investigating whether engaging in job crafting leads to unforeseen strains. Hence, the research question that is going to be addressed by the thesis, is whether subordinates experience role overload and role ambiguity due to their managers’ job crafting behaviours.
Literature Review and Hypotheses

The six Management Standards (HSE, n.d.) were developed as a result of extensive research conducted by Health and Safety Commission in the late 1990s on work-related stress in the UK (Mackay et al., 2004). As the researchers realised the scale of the problem, they identified six key stressors as part of risk management with view to reduce work stress. The current standards (demands, control, support, relationships, role, change) were derived from the results of previous studies suggesting the link between these particular psychosocial hazards and stress. The Management Standards comprise of crucial assumptions from various theories of work-related stress. One of them is the job demands–resources perspective suggests that every occupation has risk factors associated with both motivation and job stress (Crawford & Rich, 2010). Job demands refer to these associated with psychological costs and include, for example, workload and pressure. Job resources constitute for opportunities to grow, to develop, or to reduce job demands.

What is more, Cavanaugh et al. (2000) distinguished between challenge stressors and hindrance stressors among job demands, and hence, role overload was classified as a challenging job demand, which, although exhausting, may lead to increased engagement, and role ambiguity as a hindering job demand, which may lead to burnout. Job crafting and proactive behaviour, on the other hand, incorporate various job resources, which are supposed to stimulate personal growth, help in achieving work goals, and reduce job demands. Therefore, the present study can be considered a part of the wide research area of the job demands-resources perspective.

Job Crafting

Job crafting has been referred to as a process in which an individual shapes their job (Wrzesniewski & Dutton, 2001). According to Wrzesniewski and Dutton (2001), the process involves psychological, physical and social activities to adapt a job to one’s needs, which are motivated by asserting control over the tasks, creating positive self-image, and connecting with others. As the researchers predicted, the work environment is changing, and job crafting has been given a
recognition due to increasing interest in the effect of the individual employee’s performance, and its contributors, on the organisational outcomes. Bakker and colleagues (2012), identified job crafting to be predictive of work engagement and performance. Their findings suggest that, to the extent that individuals adjust their work environment, they stay engaged and perform well, while career satisfaction corresponds with positive organisational outcomes - lower turnover, culture and capabilities development, and enhanced customer service satisfaction.

There are individual motivational purposes for one’s job crafting too. Conservation of resources theory suggests that people are naturally motivated to protect their existing resources and acquire new ones (Hobfoll, 1989). People are willing to make an additional effort to enlarge their resource base, e.g. engage in training and learning opportunities (Jung & Takeuchi, 2018), since possessing greater resources lead to greater satisfaction. Although a successful career means something different to everyone as individuals differ in terms of goals, or needs they want to fulfil, personal and organisational resources are instrumental to achieve it (Jung & Takeuchi, 2018). Thus, an individual’s job crafting behaviour contributes to their satisfaction as it involves striving for and deploying the resources that can be used in one’s job.

The job demands-resources model classifies job resources and job demands as separate working characteristics, which contribute to the development of job strain when certain job demands are high, and certain job resources are limited (Bakker & Demerouti, 2007). As implied by the conservation of resources theory, people experience stress in case of loss of actual or potential resources (Hobfoll, 1989). Job demands, although not necessarily negative, can become stressors when they require effort or skills from employees, which they are not been prepared for, e.g. sustained physical effort or emotionally demanding interactions (Bakker & Demerouti, 2007). Job crafting can serve as a mean to reduce the job strain, since acquiring and possessing resources positively influences motivation or work engagement when job demands are high (Bakker & Demerouti, 2007).

Since job crafting refers to employee’s own actions in respond to their needs, it is a bottom-up approach to job design, which was traditionally considered to be managers’ role to design jobs. Nevertheless, the role of managers in their
employees’ job crafting cannot be neglected (Berg et al., 2010). They may influence employees’ engagement and performance through job demands and resources provided (Bakker et al., 2012), while these stand behind the development of the motivation to job craft itself.

Berg and colleagues (2010), identify the differences in job crafting behaviours between low- and high-ranked employees. The former find it challenging to job craft in view of issues that they do not have control over, such as maintaining positive self-image, meeting the expectations, or insecurity regarding task clarity. The latter have control over the challenges, such as time management, but their actions are more visible, which may discourage them from certain behaviours.

The interdependence of low- and high-ranked employees has been recognised as a potential problem to job crafting (Wrzesniewski & Dutton, 2001). Furthermore, job crafting often involves reducing demands of one’s job, which is beneficial for a job crafter (e.g. Demerouti et al., 2015), but it has not been researched how this affects others. The problem to be addressed in the current study is to identify the role of task delegation, which managers possibly engage in as part of their job crafting, in their subordinates’ work. Managers are believed to delegate both pleasant and unpleasant tasks to their subordinates (Yukl, 2013). The unpleasant tasks can, indeed, lead to subordinates’ role overload and ambiguity, and eventually lower their job satisfaction (Yukl, 2013).

**Role Overload**

Role overload has been identified as a potential psychosocial hazard in the organisations, related to workers’ reports of strain, low job satisfaction and organisational commitment (Cox et al., 2000). Furthermore, excessive workload has been linked to exhaustion, which in pair with disengagement can lead to employee’s burnout (Demerouti et al., 2001). Conservation of resources theory points out that employees experiencing exhaustion engage in protecting the resources, more than in acquiring new ones, leading to their weaker performance (Hobfoll, 2001).

By the need to avoid such detrimental effects, individuals are encouraged to engage in job crafting behaviours to reduce the job demands. However, if
managers, who aim to reduce the amount of their own tasks, delegate certain obligations over to their subordinates, they may heavily contribute to subordinates’ workload. If they do not provide subordinates with sufficient freedom in handling tasks, they may cause role overload, which is not engaging and motivating for a subordinate, but exhausting and may lead to burnout (Crawford & Rich, 2010).

Role Ambiguity

Role ambiguity, or role clarity, occurs when an employee has inadequate information about their work role, and events such as novel situations and change can create it (Cox et al., 2000). Similar to role overload, role ambiguity has a negative impact on work performance as it is manifested through a lack of clarity regarding expectations, uncertainty about the scope and responsibilities of one’s job. Workers who suffered from role ambiguity were more likely to experience lower job satisfaction, a greater incidence of job-related tension, greater feelings of futility and lower levels of self-confidence. Jackson and Schuler (1985), associate role ambiguity with lower levels of job and supervision satisfaction. They also suggest that employees should be clearly informed about their tasks and expectations towards them; however, this may become difficult when an individual has an opportunity to engage in job crafting. Moreover, Bakker and Demerouti (2007) recognise role clarity as one of the valuable resources in the organisation of work.

Role ambiguity is contradictory to the existence of clear guides, directives, policies, and the certainty of duties, authority, allocation of time and relationships (Rizzo, House & Lirtzman, 1970). Therefore, in the present study, it is postulated that manager may hinder an employee from understanding their own role when giving them unexpected tasks, which the manager decided to delegate to them as part of their job crafting. The tasks may create a confusion within an employee in regard to their role, if the assignments were not specified in their role description, as part of their responsibilities, or when they receive inadequate information from the manager about what is expected from them. In light of the different effects that the research literature suggests job crafting behaviours may have, the first two hypotheses are:
Hypothesis 1: Perceived manager’s job crafting is positively related to subordinate’s role overload.

Hypothesis 2: Perceived manager’s job crafting is positively related to subordinate’s role ambiguity.

Proactive Personality

Proactive personality can be treated as a personal job resource. Person-Environment Fit model developed by French et al. (1982), presents the concept of ‘fit’ as a match between a task and person’s means to accomplish it. French et al. (1982) identified two aspects of P-E fit: if employee’s attitudes and abilities meet job’s demands, and whether the work environment meets employee’s needs. Work-related stress arises when the misfit occurs. The authors distinguished objective and subjective elements in their model. Therefore, subjective fit is how a particular employee perceives themselves and the environment, while objective fit includes facts about a person and the environment free of anyone’s opinions or feelings. A person with proactive personality would find it easier to meet the demands by exploiting and searching for resources, while a passive person would experience a certain distress when given a task that they do not perceive themselves capable of doing, or even approaching.

People differ in terms of the extent to which they pursue actions to change the environment around them, both due to their personal traits and the situational factors (Bateman & Crant, 1993). As for the present study, proactive personality and proactive behaviours will be considered the same, since the research focuses on one’s experience of proactivity in a workplace, and not in other aspects of life.

An employee can be described as proactive when they, for example, engage in extracurricular activities or when they seek feedback and opportunities for development. Job crafting requires the proactivity of an individual as well. In fact, individuals with proactive personality are more likely to craft their jobs, as they mobilise structural and social resources, job demands, and increase job challenges
(Bakker et al., 2012). Engaging in job crafting, or career self-management, requires self-regulatory behaviour, which depends on personality factors, but can be improved through career counselling, support or supervision (Bakker et al., 2012). Proactive career behaviours, i.e. the initiatives employees show with respect to managing their careers (Parker & Collins, 2010), include for example: career exploration, career planning, career consultations, network building, and skill development, while career self-management is positively related to career satisfaction (Bakker et al., 2012).

Nevertheless, just as employee’s proactive behaviours can be encouraged and rewarded, it can also be limited by their leader (Solberg & Wong, 2016). In accordance to the findings of Solberg and Wong (2016), only when employee’s perceived adaptivity is high and leaders' need for structure is low, they will engage in such activities as job crafting to manage the extensive workload. Hence, the importance of autonomy needs to be acknowledged as it has been identified to be a key in facilitating intrinsic motivation (Hackman & Oldham, 1980), which in turn enhances work effort and performance (Kuvaas et al., 2016). In line with the idea of job crafting, an employee needs to be given freedom in carrying out a task, scheduling their work, deciding on which resources to use and whom to work with to achieve desired performance (Deci et al., 2017). Furthermore, autonomy provides space for job crafting, which encourages proactive behaviour as employees are more likely to engage in it if they know that their actions are worth spending time on (Wong et al., 2017).

Considering that proactive personality is predictive of one’s work engagement, job crafting, reducing job demands while seeking job resources, which results in job satisfaction, it is believed to minimise the possible negative consequences of being given an unwanted or unexpected task. Proactive personality is therefore hypothesised to reduce the strength of the positive relationship between perceived managers’ job crafting behaviours and their employees’ role overload and role ambiguity.
Hypothesis 3: The relationship between perceived manager’s job crafting and subordinate’s role overload is moderated to be weaker by subordinate’s proactive personality.

Hypothesis 4: The relationship between perceived manager's job crafting and subordinate’s role ambiguity is moderated to be weaker by subordinate’s proactive personality.
Method

Procedure and Sample

A quantitative, survey research model was used to collect data for this study. A convenience sampling was applied to recruit a sufficient number of respondents to obtain a statistical power of the study. Adult working individuals who declared to have a manager were asked to fill out the survey.

Data were collected via a structured questionnaire (Appendix B) offered in three languages (English, Norwegian, and Polish), and distributed online via social media, student groups, and researcher’s personal network during spring 2019. Questionnaires were available through a web-based tool (Qualtrics Inc.). After completion of their survey, respondents were asked to forward the link to the questionnaire to their peers.

The distribution of the survey resulted in 69 completed data sets, out of which 67 obtained validity on each of the measures. All respondents declared to be in a subordinate position at work (i.e. had a manager and was not a manager themselves). Of the respondents who completed the survey, 53 were women and 16 were men; 35 were between the age of 18 and 25, 19 between 26 and 35, 5 between 36 and 45, 6 between 46 and 55, and 4 between 56 and 65; 37 worked in Norway, 17 in Poland, 11 in the United Kingdom, 1 in Australia, 1 in Ireland, 1 in Germany, and 1 in Netherlands. Majority of the respondents (44.93%) had been with their company between 1 and 5 years, and almost half of the respondents (47.83%) had been in their position between 1 and 5 years.

Measures

Four variables were measured on individual scales. Items for Perceived Job Crafting, Role Ambiguity, and Proactive Personality were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items for Role Overload were measured on a five-point Likert scale ranging from 1 (never) to 5 (almost always). Scale items can be found in Appendix B.
Independent Variables

Three independent variables were derived from a single measure of Perceived Job Crafting (PJC): perceived job crafting – increasing resources (PJC-IR), perceived job crafting – increasing challenges (PJC-IC), and perceived job crafting – reducing demands (PJC-RD). Each of the variables consisted of six items. 18-item PJC scale, adapted for the purpose of this study, was based on the Job Crafting scale developed by Tims, Bakker and Derks (2012). The wording of the original scale was constructed in such way that respondents answered questions about their managers’ job crafting behaviours, and hence the measure was named “perceived” job crafting. How the items were adapted, can be found in Appendix C.

Moderating Variable

Proactive Personality (PP) was measured on a three-item scale. Items were derived from a 17-item proactive personality scale developed by Bateman and Crant (1993). Only three items were chosen, based on the fact that their factor loadings were higher than those of other items, to reduce the response time.

Dependent Variables

Role Overload (RO) was measured using a four-item scale based on the scale developed by House (1980). The questions from the original scale were substituted with statements due to consistency of the questionnaire.

Role Ambiguity (RA) was measured on a four-item scale adapted for the purpose of this study. The scale was based on the Role Questionnaire developed by Rizzo, House and Lirtzman (1970). The adapted items can be found in Appendix C.

Control Variables

Four demographic variables served as controls in the study: gender, age, organisational tenure, and position tenure. Gender was measured as a dichotomous variable coded “0” for males and “1” for females. Age consisted of six levels: 18-25-year-old (coded “1”), 26-35 (coded “2”), 36-45 (coded “3”), 46-55 (coded “4”), 56-65 (coded “5”), and above 65 (coded “6”). Organisational tenure, referring to how long a responded was hired for the company, consisted of
five levels: less than 6 months (coded “1”), between 6 and 12 months (coded “2”),
between 1 and 5 years (coded “3”), 5 to 10 years (coded “4”), and more than 10
years (coded “5”). Position tenure, referring to how long a respondent was in the
same position at work, consisted of the same five levels as organisational tenure.
Analysis and Results

As a first step, exploratory principal component analysis with promax rotation is conducted on all self-rated items to evaluate the factor structure and determine item retention. Only items with a loading of .50 or higher on the target construct and a cross loading of less than .40 on other included factors were included in the computed scales.

Second, the hypotheses were tested using IBM SPSS Statistics 25.0 for linear regression modelling. To test the direct-effect hypotheses (hypotheses 1 and 2), the dependent variables were first regressed onto the independent variable. Then, to test the hypotheses containing moderation relationships (hypotheses 3 and 4), the PROCESS macro for SPSS (Hayes, 2018) was used.

Principal Component Analysis

The principal component analysis (Appendix D) of self-reported measures revealed that items 3 and 4 from the Ambiguity variable calculation should be removed, based on the decision rules above. Other scales were computed with all intended items.

Table 1. reports the sample size, means, standard deviations, and bivariate correlations for all the variables. Coefficient alphas indicating scale reliabilities for all computed scales are provided in parentheses.

The direct-relationship hypotheses (hypotheses 1 and 2) predicted a positive relationship between perceptions of manager’s job crafting and subordinates’ role overload and ambiguity. The bivariate correlation analysis revealed no significant relationships between these variables (p > .05). Therefore, hypotheses 1 and 2 were not supported. However, perceptions that managers engage in job crafting aimed at increasing resources is positively related to employees' role ambiguity (r = .31; p < .05).
<table>
<thead>
<tr>
<th>Variable</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender (0 = male, 1 = female)</td>
<td>69</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>69</td>
<td>1.91</td>
<td>1.21</td>
<td>.16</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Organisational tenure</td>
<td>69</td>
<td>2.77</td>
<td>1.14</td>
<td>.19</td>
<td>.65**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Position tenure</td>
<td>69</td>
<td>2.51</td>
<td>0.99</td>
<td>.11</td>
<td>.59**</td>
<td>.83**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PJC - IR</td>
<td>69</td>
<td>3.85</td>
<td>0.99</td>
<td>-.01</td>
<td>.07</td>
<td>-.01</td>
<td>.00</td>
<td>(.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. PJC - IC</td>
<td>69</td>
<td>3.83</td>
<td>0.89</td>
<td>.08</td>
<td>-.02</td>
<td>-.20</td>
<td>-.21</td>
<td>.54**</td>
<td>(.91)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. PJC - RD</td>
<td>69</td>
<td>3.82</td>
<td>0.85</td>
<td>-.10</td>
<td>-.04</td>
<td>-.14</td>
<td>-.13</td>
<td>-.04</td>
<td>-.14</td>
<td>(.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. RO</td>
<td>67</td>
<td>2.62</td>
<td>0.92</td>
<td>-.11</td>
<td>.04</td>
<td>.06</td>
<td>.13</td>
<td>-.19</td>
<td>-.22</td>
<td>.03</td>
<td>(.84)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. RA</td>
<td>67</td>
<td>4.41</td>
<td>0.58</td>
<td>.05</td>
<td>-.20</td>
<td>-.08</td>
<td>-.07</td>
<td>.31*</td>
<td>.24</td>
<td>-.14</td>
<td>-.22</td>
<td>(.58)</td>
<td></td>
</tr>
<tr>
<td>10. PP</td>
<td>67</td>
<td>3.96</td>
<td>0.68</td>
<td>-.18</td>
<td>-.16</td>
<td>-.39**</td>
<td>-.35**</td>
<td>.23</td>
<td>.22</td>
<td>.18</td>
<td>.11</td>
<td>-.21</td>
<td>(.74)</td>
</tr>
</tbody>
</table>

*Note.* **p < .01; *p < .05.  
Coefficient alpha values are presented on the diagonal in parentheses for multi-item measures.  
Values for Age, Organisational tenure, and Position tenure were reported on 1-5 point scale.  
PJC-IR = perceived job crafting – increasing resources  
PJC-IC = perceived job crafting – increasing challenges  
PJC-RD = perceived job crafting – reducing demands  
RO = role overload  
RA = role ambiguity  
PP = proactive personality
Additionally, there is a significant positive correlation between Perceived Job Crafting aimed at Increasing Resources and Perceived Job Crafting aimed at Increasing Challenges ($r = .54; p < .01$); Age and Organisational ($r = .65; p < .01$) and Position ($r = .59; p < .01$) tenures; Organisational and Position tenure ($r = .83; p < .01$). There is also a significant negative correlation between Proactive Personality and Organisational tenure ($r = -.39; p < .01$) and Position tenure ($r = -.35; p < .01$).

**Regression Analyses**

Table 1. reports the results of regression analyses testing the independent variables with Proactive Personality as a moderator.

<table>
<thead>
<tr>
<th>Variable</th>
<th>RO</th>
<th>RA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJC-IR</td>
<td>1.72</td>
<td><strong>1.19</strong> <em>p &lt; .05</em></td>
</tr>
<tr>
<td>PJC-IC</td>
<td>2.00</td>
<td>.63</td>
</tr>
<tr>
<td>PJC-RD</td>
<td>-1.67</td>
<td><strong>7.63</strong> <strong>p &lt; .01</strong></td>
</tr>
</tbody>
</table>

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

Reported values are standardised regression coefficients.

PJC-IR = perceived job crafting – increasing resources
PJC-IC = perceived job crafting – increasing challenges
PJC-RD = perceived job crafting – reducing demands
RO = role overload
RA = role ambiguity
PP = proactive personality
N = 67

The moderation hypotheses (hypotheses 3 and 4) predicted that the relationship between perceptions of managers’ job crafting and the dependent variables would be moderated by subordinates’ proactive personality. The results in table 2. reveal that the hypotheses 3 and 4 were not fully supported.

However, as for the hypothesis 3, there is a marginally significant interaction in the relationship between Reducing Demands and Role Overload. The relationship
between reducing demands and employees' experience of role overload is strongest when employees are low on proactive personality ($\beta = -1.67; p < .05$).

The hypothesis 4 was not supported for models including increasing challenges, but there is a marginal interaction in the model including increasing resources ($\beta = 1.19; p < .05$), and a significant interaction in the model including reducing demands ($\beta = 7.63; p < .01$).


Discussion

The general purpose of this research was to examine whether managers’ job crafting behaviours result in their subordinates’ role overload and role, and whether subordinates’ proactivity can help them overcome these job demands.

First of all, perceived job crafting measure was split into three subcategories accordingly to the split of the original job crafting measure by Tims et al. (2012): increasing structural job resources, decreasing hindering job demands, and increasing challenging job demands, to obtain more insightful results than when PJC was treated as a single measure.

The results of the conducted study do not signify the relationship between how subordinates perceive their manager job crafting behaviours and how it affects their role. Manager’s job crafting seems to be overall unrelated to their subordinates’ role overload or role ambiguity. However, there is a marginal positive interaction between perceptions that managers engage in job crafting aimed at increasing resources and employees’ role ambiguity. The interaction does not imply the causality, but since increasing job resources most often includes task variety, autonomy, social support, performance feedback, and seeking opportunities for development (Tims et al., 2012), subordinates could perhaps feel that their manager is somehow distant, which may result in unclear guidelines and expectations towards a subordinate. Alternatively, a manager who seeks opportunities outside of their regular role may introduce variety of novel tasks into a subordinate’s job, which leads to their ambiguous job situation.

Furthermore, there is a positive relationship between PJC aimed at increasing resources and PJC aimed at increasing challenges, which is most likely due to the fact that if a manager seeks opportunities to develop, they will also engage in more and more challenging tasks, take on more responsibilities and workload, and the other way around.

The positive relationship between age and tenures in the organisation and in the particular position, as well as between organisational and position tenure,
can be explained by the fact that the older the person is, the more likely they are to work longer for a particular company or in a particular position, and adversely for younger respondents. Also, the longer a person works for a company, the more likely they are to work in the same position, than those who have been in a company for a shorter time. If a person declared working in a particular position, they most likely have worked for the company for the same amount of time or longer.

A negative relationship between PP and organisational and position tenure may relate to the idea that employees may encounter latency problems at certain points in their careers. They adapt to organisational culture, do not challenge the status quo, and settle for average “just good enough” solutions (Schabracq et al., 2003; pp. 39). Alternatively, older respondents are more likely to work for traditional organisations that do not embrace, for example, mentioned flexible working patterns.

As PP was found to weaken the relationship between reducing demands by manager and their subordinate’s role overload, it can be suggested that proactive subordinates handle better the workload (which may be delegated to them by managers) than the passive subordinates. It can also be related to the fact that role overload is a challenging demand that can energise and require a proactive behaviour from a subordinate (Crawford & Rich, 2010).

Finally, subordinate’s PP was found to strengthen the relationship of subordinate’s role ambiguity when their manager’s job crafted aiming at increasing resources or reducing demands. It is possible that the proactive subordinates engage in the same job crafting behaviours as their managers, which may be encouraged by the company’s culture. Then, their role become ambiguous when they exceed their role responsibilities, they decide on the tasks they want to do, just as their managers, but are unable to clarify what is expected of them and are not required to follow any procedures.
**Limitations**

There are several limitations to presented research. First of all, the sample was small and highly heterogenous, which makes the findings difficult to generalise. The sample size of 69 produces a low statistical power for the research model used. Regarding the demographical variables, 76.8% of the respondents were females, almost 50% were between 18 and 25-year-old, and almost 50% had been in their job position and company between 1 and 5 years. Respondents were also geographically dispersed, mainly between three countries: Norway, Poland and United Kingdom, and completed the questionnaires in local languages, which might have caused differences in understanding of the questions and statements.

Although certainly geographically dispersed, the sample was too small to measure for the differences between the countries and any tendencies employees from particular countries would exhibit. As known from the GLOBE study leadership is performed differently from country to country. The researchers identified universal desirable traits of leaders (e.g. trustworthy, just, honest, decisive); however, they still associated six leadership styles with particular countries. For example, participants from Germanic countries preferred performance oriented and participative styles, but Middle Eastern rated these styles adversely. As for the presented research, it cannot be said whether the country chosen as the location of one’s workplace corresponds with their customs, and presumably their perception of the manager’s behaviour.

Another limitation, as in every self-reported measure, were individual differences. Perception of stress is subjective to each individual and may differ just as personality, which is unique to everyone (Pervin, 2003). For example, people of Type A behaviour described by Friedman and Rosenman (1974) as competitive, hurried and hostile are at greater risk of developing cardiovascular diseases, and certain elements, such as hostility, increase proneness to stress. Hallberg, Johansson and Schaufeli (2007) found that even though Type A behaviour may have positive consequences (achievement striving results in work engagement), the irritability and impatience have a negative impact on one’s mood and increase perceived stress at work, which may lead to burnout. Furthermore, neurotic people are more susceptible to stressors and getting involved in conflict situations with colleagues (Warr, 2002). What is more, Booth et al. (2013) indicated the link between neuroticism and decision latitude – participants low in neuroticism and
with low control were at greater risk for developing depression. Oppositely to the assumption that workers are less stressed while in control over their work, the less control neurotic self-conscious employees get, the better for their well-being. Another personality aspect influencing the experience of work-related stress is self-efficacy (SE) – one’s belief in their abilities to accomplish tasks. As Bandura (1982) stated SE influences both learning and performance, therefore employees low in SE set lower goals, exert less effort at work, are not persistent and choose less effective coping strategies. These points should be taken allowed into consideration since they may determine how subordinates react to stressors, how they handle demands and how susceptible they are to, for example, developing role overload.

In addition, as stated by Crawford and Rich (2010), role overload is a challenging demand, which means it can energise the action, motivate a person to perform and seek additional resources. In the current study role overload was presented predominantly as a negative outcome, and in such manner the questions for the respondents were formulated. It is worth noting, that some studies point to the positive aspects of heavy workload, and hence the hypotheses for this research could have been formulated twofold.

There were also limitations to the distribution of the survey and access to respondents. Insufficient number of managers the researcher had tried to contact resulted in lack of direct connection of the manager’s responses with their subordinates’ responses, and for this reason the job crafting measure was adapted into perceived job crafting measure. It is recognised that connecting manager’s actual job crafting behaviours with their subordinates’ role overload and ambiguity would be of more value to the study.

Difficulties were encountered when distributing the questionnaires to several companies. According to collocutors, the policies of companies did not allow them to complete the questionnaires on topics such as the function of manager’s job crafting in their subordinates’ role overload and ambiguity, which limited the number of respondents to the survey.
**Future Research**

The future research in the field could expand the model by additional variables such as leader-member exchange or perceived autonomy.

Leader-member exchange theory describes how dyadic relationships evolve over time, take different forms - from a casual exchange to a cooperation, when a leader shares objectives and trust with an employee (Yukl, 2013). The kind of exchange relationship the two parties have, and the level of trust they develop, has a substantial role in the delegation of the tasks – leaders are more likely to delegate tasks to subordinates they trust in terms of, for example, their skills, whereas poor quality of relationship may result in lack of communication, or delegation of unpleasant tasks (Yukl, 2013).

A high-quality relationship with one's manager is a certain asset of the job and a valuable resource to an employee (Bakker et al., 2007). Managers can reduce work overload, provide emotional and physical support, facilitate and appraise performance. Furthermore, building on the research of Wrzesniewski and Dutton (2001), Berg and colleagues (2010) suggest that there are certain limitations the employees face, even though they may be encouraged to job craft, such as formal power and autonomy. Indeed, the participants of their study identified, for example, time constrains, close supervision and the expectations, to be limiting to their job crafting. A high-quality relationship can either prevent such problems or facilitate the communication between a manager and their subordinate.

Communicating with employees in a positive manner helps preventing work problems (Bakker et al., 2007). In accordance to the findings of Wong and colleagues (2017), communication allows a clear understanding of expectations between a manager and a subordinate, which is stimulating for job crafting behaviours. Therefore, the final hypothesis postulates that the better an employee perceives their relationship with a leader to be, the stronger will be the negative effect of employee’s proactive personality on both: the relationship between manager’s job crafting behaviour and perceived employee’s role overload, and the relationship between manager’s job crafting behaviour and perceived employee’s role ambiguity.
Since autonomy allows for proactive behaviour at work (Solberg & Wong, 2016), and by taking into consideration the positive effect of autonomy on employee’s motivation to work and to engage in job crafting (Deci et al., 2017), it is suggested that it would strengthen the negative effect of employee’s proactive personality on both: the relationship between manager’s job crafting behaviour and perceived employee’s role overload, and the relationship between manager’s job crafting behaviour and perceived employee’s role ambiguity.

Another suggestion for the future research would be to explore the emerging trends among organisations such as self-leadership and holocratic management, which could be an alternative to having a manager who may negatively affect subordinates’ well-being.

While recruiting the respondents for the survey, the researcher came across one company describing their management way as Holocracy, which is based on self-management, decentralised structure and full transparency of processes (Jedrzejewski, 2018). The employees of such company could not be asked to answer questions about their managers, as they did not have any, but in the future, such companies could be compared with the ones having managers, on the employees’ well-being, role overload and role ambiguity, to check how much these variables are dependent on manager’s behaviours.

**Practical Implications**

As the effectiveness of job crafting has been widely documented in the scientific research, as well as the negative consequences, such as burnout, of job demands like role overload and role ambiguity, the presented research aimed at contribution to the deeper understanding of sources of stress at work. The practical implications of the research include: accurate diagnosis of the source of stress and applying an adequate intervention, acknowledgement of the managers’ role in employees’ stress, its consequences and prevention.
Theoretical work in the field of occupational stress provides a foundation for appropriate interventions aimed at tackling stress and leading to high-performance. Cooper et al. (2001; pp. 189) propose a three-stage framework for stress management interventions, which includes primary, secondary and tertiary interventions. Primary interventions include such strategies as job redesign, role or organisation restructure and are reported to be effective when systematically and carefully assessed. They work as a work-related stress prevention - addressing and reducing potential stressors occurring in a workplace. The Management Standards serve as great guidelines in primary interventions since they provide managers with rules of well-functioning organisation that should be followed. Job crafting can serve as a primary intervention.

Secondary interventions are aimed at an employee and shaping their response to inevitable stressors. They incorporate such techniques as stress and time management training, relaxation training, cognitive restructuring and conflict resolution strategies. Dewe (1994) described secondary interventions as probably the most widely used by organisations due to their utility and not disturbing current work patterns within an organisation. However, Dewe (1994) also noticed that these interventions do not reduce stressors but instead, divert the responsibility for mental strain from managers to employees. Le Fevre et al. (2006) argued that secondary interventions should be employed prior to the primary ones. They suggested the little empirical evidence for the effectiveness of primary interventions comparing to more popular, individual-focused secondary approaches. The researches of Dewe (1994), as well as Le Fevre and colleagues (2006), on secondary interventions certainly contribute to the discussion of the responsibility for work-related stress.

Meanwhile, tertiary interventions focus on treatment and minimising the consequences of the problem that has already occurred due to the stressors. They are usually called the Employee Assistance Programmes (EAPs) and are incorporated when employees need to be provided with professional psychological help such as counselling and emphasise “both self-referral (leading to earlier identification of potential difficulties) and in some cases, health promotion activities, empowering employees to take control over their own health behaviours” (Davis & Gibson, 1994). Davis and Gibson (1994) pointed out that
EAPs, although cost-effective in a long-term view, may be difficult to employ in view to the financial expenses and work patterns.

In 2001, van der Klink et al. evaluated the results of research focusing on the effectiveness of stress-reducing interventions. Among the reviewed studies, they distinguished four intervention types (cognitive-behavioural, relaxation, multimodal and organisation-focused) and found cognitive-behavioural approach to be the most successful. In 18 studies, the approach improved employees’ perceived quality of work life, enhanced psychological resources and responses, and reduced complaints. In 2006, Richardson and Rothstein found similar results. In order to understand why these interventions were more effective than others, they compared the goals of different techniques and described cognitive-behavioural approach as ‘active’ – encouraging an employee to change their thinking patterns to more adaptive ones and actually practicing more functional behaviours, not only detract the attention from dysfunctional emotions like relaxation methods, which still were the most popular strategy.

The responsibility for occupational stress within an organisation lies with both employers and employees. For the most satisfying results and high-performance everybody needs to put effort to stress reduction. Nevertheless, employers cannot avoid the responsibility for the occurrence of mental strain among their employees, firstly, because “occupational stress is likely to continue to present a major threat to the financial health and profitability of organizations” (Cooper & Cartwright, 1994) and this definitely matters to them. Second of all, it raises ethical concerns when an employer does not try to reduce potential stressors at work and attempts to modify only employees’ response to them (Dewe, 1994; Le Fevre et al. 2006), while Cooper and Cartwright (1994) stated primary level interventions are more cost-effective. Unfortunately, lack of support is continuously a significant factor contributing to work-related stress (HSE, 2016). Therefore, to prevent and reduce occupational stress and its unfavourable consequences, managers should provide their employees with a well-prepared environment and support during work, whereas employees should be aware of their mental condition and take profit of resources offered by managers.
Another important point to make is issue of the task delegation. When delegating a task to their subordinate, a manager should provide a subordinate with sufficient resources to do the job. Hence delegation could be replaced with teaching a subordinate how to perform a task (Markman, 2018). Markman (2018) suggests that managers ought to decide on which of the subordinates wants to develop, move up in the organisation, then practice and train them to handle the tasks appropriately. Siang (2018) adds also that managers should put effort into getting to know people who they want to delegate tasks to, know their strengths and weaknesses, and how these can help with the task.
Conclusion

Despite certain limitations to the research presented, the study itself poses a new question in the field of job crafting: can a job crafting manager be dangerous to the subordinates? If managed inappropriately, subordinates may experience a severe work-related distress, resulting in their poor well-being as well as economic losses for the organisation. Therefore, although heavily endorsed, and of certain benefits to an individual as well as for the organisation, job crafting should be introduced with respect to those who may be affected by one’s sudden engagement in proactive behaviours at work.
References


Jedrzejewski, P. (2018, March 29). Holocracy. Our future is teal! Retrieved from https://sylius.com/blog/holacracy-our-future-is-teal/?fbclid=IwAR1p-tkeB8BisYQhXtiNXQOrK_G9I17aiDnjWABCFdVyBxZHP69dx9F3zBg


Appendices

Appendix A: Information Letter for Participants

Are you interested in taking part in the research project “Function of managers’ job crafting in their subordinates’ role overload and role ambiguity”?

This is an inquiry about participation in a research project where the main purpose is to examine the relationship between job crafting, role overload and role ambiguity. In this letter, we will give you information about the purpose of the project and what your participation will involve.

Purpose of the project
The study relates to a master’s thesis in the field of Leadership and Organisational Psychology. The overall purpose of this research is to examine whether subordinates’ role overload and role ambiguity are influenced by their managers’ job crafting behaviours. To examine this question, we need to collect quantitative data on job crafting behaviours, current role demands, personality, and quality of workplace relationships.

Who is responsible for the research project?
BI Norwegian Business School is the institution responsible for the project.

Why are you being asked to participate?
To achieve high statistical power of the research, at the minimum 50 participants are asked to complete the survey. The researcher directly contacts potential participants.

What does participation involve for you?
If you choose to participate in the study as a non-manager, you will be asked to fill in an online survey on job crafting behaviours, your personality, autonomy in making decisions, your role demands, and quality of workplace relationships. It will take approx. 10 minutes.

Participation is voluntary
Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data
We will only use your personal data for the purpose specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act). Persons with an access to the personal data include the student and the project’s supervisor. Completed questionnaire will be anonymised and stored on a password secured research server. The answers will be recorded under your participant code, which we will ask you to provide if you wish your data to subsequently be withdrawn.

What will happen to your personal data at the end of the research project?
The project is scheduled to end on the 1st of July 2019. Upon completion of the study, all primary data will be deleted.
Your rights
So long as you can be identified in the collected data, you have the right to:
- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?
We will process your personal data based on your consent. Based on an agreement with BI Norwegian Business School, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?
If you have questions about the project, or want to exercise your rights, contact:
- BI Norwegian Business School via: Nina Pulkownik (student, nina.pulkownik@student.bi.no), Elizabeth Solberg (supervisor, elizabeth.solberg@bi.no)
- Our Data Protection Officer: Vibeke Nesbakken (vibeke.nesbakken@bi.no)
- NSD – The Norwegian Centre for Research Data AS, by email (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Yours sincerely,

Nina Pulkownik
(Researcher)
Appendix B: Survey

Q1 [Consent]
Thank you for participating in this study! Please know that this project is registered with the Norwegian Centre for Research Data AS and is being carried out in accordance with current data protection legislation (GDPR). In the information letter linked to below you will find more details regarding the study procedures and terms of consent.

Information letter
By participating in this study, you are agreeing that you have received and understood information about the project and have been given the opportunity to ask questions. Please confirm your consent below before proceeding with the online survey.
Do you consent to these terms?

☐ Yes (1)
☐ No (2)

Q2 [Age]
Your age is:

☐ 18 - 25 (1)
☐ 26 - 35 (2)
☐ 36 - 45 (3)
☐ 46 - 55 (4)
☐ 56 - 65 (5)
☐ above 65 (6)

Q3 [Gender]
You are:

☐ Male (1)
☐ Female (2)
☐ Other (3)

Q4 [Location]
The country you work in is:

▼ Afghanistan (1) ... Zimbabwe (1357)
Q5 [Position]
Your current position is:
________________________________________________________________

Q6 [Organisational tenure]
How long have you been with your company?

- Less than 6 months (1)
- Between 6-12 months (2)
- Between 1 - 5 years (3)
- 5 - 10 years (4)
- More than 10 years (5)

Q7 [Position tenure]
How long have you been in your current position?

- Less than 6 months (1)
- Between 6-12 months (2)
- Between 1 - 5 years (3)
- 5 - 10 years (4)
- More than 10 years (5)

Q8 [Manager/subordinate differentiation]
You are:

- a manager (1)
- not a manager (2)

Q9 [Code to be provided in case of withdrawal of data]
Please create a 6-digit participant code, which will be used to match your responses with the responses of your immediate supervisor, or in the event that you wish your data to be withdrawn from the study. Your participant code should be your supervisor’s first name initial + the last 3 letters of his or her surname, followed by the last 2 digits of your phone number. For example, if your supervisor’s name was Erna Solberg and your telephone number was 98 76 54 32, your participant code would be EERG32.

________________________________________________________________

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GRA 19703
Q10 [Perceived job crafting]
In this part of the survey, you are asked to answer multiple questions using locked-answer options. Choose the answer option that is closest to what you think is right for you. The questions are different, although they may seem similar. You are therefore asked to look at each as a separate question and to answer all the questions.

The questions below are about your immediate leader's behaviour at work. Please indicate to what extent you agree with the statements below.

I find that my immediate superior ...

<table>
<thead>
<tr>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works actively to improve their personal skills (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes an effort to increase their professional skills and abilities (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes an effort to learn new things at work when introduced (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asks others for feedback on how he / she performs at work, that is, information he / she can use to improve on the job (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to develop their professional network (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to create friendly relationships with people at work (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Proactively seeks to participate in interesting projects at work when it appears (7)

Is one of the first to try out new solutions at work when they arrive (8)

Takes the chance to start new projects when there is not much to do (9)

Takes on extra tasks regularly, even if they do not receive extra pay for it (10)

Contributes in different ways in the workplace, not just with job-related tasks (11)

Takes on new tasks to make their job more challenging (12)

Minimizes contact with people at work involved in issues that affect him/her emotionally (13)
Attempts to minimize contact with people at work who have unrealistic expectations of him/her (14)

Tries to simplify the complexity of their work tasks (15)

Finds ways to delegate tasks that require too much physical, emotional or mental effort to others (16)

Finds ways to reduce tasks that are too time-consuming (17)

Tries to find ways to minimize the work tasks he/she doesn't like to do (18)
Q11 [Role ambiguity]
The questions below are about how you experience your job and handle work tasks.

<table>
<thead>
<tr>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know what my responsibilities are (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know exactly what is expected of me in my role (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I've been explained what I need to do in the job (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are clear goals for my work tasks (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q12 [Role overload]
How often do you experience:

<table>
<thead>
<tr>
<th></th>
<th>Never (1)</th>
<th>Rarely (2)</th>
<th>Sometimes (3)</th>
<th>Often (4)</th>
<th>Almost always (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of work you have to do comes in conflict with how well you can do your work (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You don't have enough support and resources to do a good job (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You don't have enough time to do a good job (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You have to try to satisfy many different people in your job (4)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Q13 [Proactive personality]
The questions below are about how you experience your job and handle work tasks.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am always looking for better ways to do things (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I have faith in an idea, nothing can prevent me from realizing it (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I see something I do not like, I fix it (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix C: Adapted Measures

**Perceived Supervisor Job Crafting**

<table>
<thead>
<tr>
<th>Items used in previous research</th>
<th>Adapted items for present research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increasing job resources (structural)</strong></td>
<td></td>
</tr>
<tr>
<td>1. I try to develop my capabilities</td>
<td>My immediate superior ...</td>
</tr>
<tr>
<td>2. I try to develop myself professionally</td>
<td>Works actively to improve their personal skills</td>
</tr>
<tr>
<td>3. I try to learn new things at work</td>
<td>Makes an effort to increase their professional skills and abilities</td>
</tr>
<tr>
<td><strong>Increasing challenging job demands</strong></td>
<td></td>
</tr>
<tr>
<td>4. When an interesting project comes along, I offer myself proactively as project co-worker</td>
<td>Proactively seeks to participate in interesting projects at work when they come up</td>
</tr>
<tr>
<td>5. If there are new developments, I am one of the first to learn about them and try them out</td>
<td>Is one of the first to try out new solutions that are introduced at work</td>
</tr>
<tr>
<td>6. When there is not much to do at work, I see it as a chance to start new projects</td>
<td>Takes the chance to start new projects when there is not much to do</td>
</tr>
<tr>
<td>7. I regularly take on extra tasks even though I do not receive extra salary for them</td>
<td>Takes on extra tasks regularly, even if they do not receive extra pay for it</td>
</tr>
<tr>
<td><strong>Decreasing hindering job demands</strong></td>
<td></td>
</tr>
<tr>
<td>8. I manage my work so that I try to minimize contact with people whose problems affect me emotionally</td>
<td>Minimizes contact with people at work involved in issues that affect him / her emotionally</td>
</tr>
<tr>
<td>9. I organize my work so as to minimize contact with people whose expectations are unrealistic</td>
<td>Attempts to minimize contact with people at work who have unrealistic expectations of him / her</td>
</tr>
</tbody>
</table>

---

1 (Tims, Bakker, & Derks, 2012)
## Role ambiguity

<table>
<thead>
<tr>
<th>Items used in previous research¹</th>
<th>Adapted items for present research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know exactly what is expected of me.</td>
<td>I know exactly what is expected of me in my role.</td>
</tr>
<tr>
<td>2. Explanation is clear of what has to be done.</td>
<td>I've been explained what I need to do in the job.</td>
</tr>
<tr>
<td>3. Clear, planned goals and objectives for my job.</td>
<td>There are clear goals for my work tasks.</td>
</tr>
</tbody>
</table>

¹ (Rizzo, House, & Lirtzman, 1970)
### Appendix D: Principal Component Analysis – Pattern Matrix

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSJC_IR1 My immediate superior ... - Works actively to improve their personal skills</td>
<td></td>
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<tr>
<td>PSJC_IR2 My immediate superior ... - Makes an effort to increase their professional skills and abilities</td>
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<tr>
<td>PSJC_IR3 My immediate superior ... - Makes an effort to learn new things at work when introduced</td>
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</tr>
<tr>
<td>PSJC_IC1 My immediate superior ... - Proactively seeks to participate in interesting projects at work when they come up</td>
<td></td>
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<td>.63</td>
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</tr>
<tr>
<td>PSJC_IC2 My immediate superior ... - Is one of the first to try out new solutions that are introduced at work</td>
<td></td>
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<tr>
<td>PSJC_IC3 My immediate superior ... - Takes the chance to start new projects when there is not much to do</td>
<td></td>
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<tr>
<td>PSJC_IC4 My immediate superior ... - Takes on extra tasks regularly, even if they do not receive extra pay for it</td>
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<td>.72</td>
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<td></td>
</tr>
<tr>
<td>PSJC_RD1 My immediate superior ... - Minimizes contact with people at work involved in issues that affect him / her emotionally</td>
<td></td>
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<td>.92</td>
<td></td>
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</tr>
<tr>
<td>PSJC_RD2 My immediate superior ... - Attempts to minimize contact with people at work who have unrealistic expectations of him / her</td>
<td></td>
<td></td>
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<td>.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RC1 I know exactly what is expected of me in my role</td>
<td></td>
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<td>.76</td>
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<tr>
<td>RC2 I've been explained what I need to do in the job</td>
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<tr>
<td>RC3 There are clear goals for my work tasks</td>
<td></td>
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<td>.74</td>
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</tr>
<tr>
<td>RO1 The amount of work you have to do comes in conflict with how well you can do your work</td>
<td></td>
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<td>.86</td>
<td></td>
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<tr>
<td>RO2 You don't have enough support and resources to do a good job</td>
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<td>.78</td>
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<tr>
<td>RO3 You don't have enough time to do a good job</td>
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<td>.82</td>
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<tr>
<td>RO4 You have to try to satisfy many different people in your job</td>
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<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO1 I am always looking for better ways to do things</td>
<td></td>
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<td>.78</td>
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</tr>
<tr>
<td>PRO2 If I have faith in an idea, nothing can prevent me from realizing it</td>
<td></td>
<td></td>
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<td>.80</td>
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<td></td>
</tr>
<tr>
<td>PRO3 If I see something I do not like, I fix it</td>
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<td>.81</td>
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</tr>
</tbody>
</table>

**Extraction Method:** Principal Component Analysis.

**Rotation Method:** Promax with Kaiser Normalization.

Only factor loadings above .35 are shown.

**Coding:**

- PSJC_IR = Perceived supervisor job crafting, increasing resources
- PSJC_IC = Perceived supervisor job crafting, increasing challenges
- PSJC_RD = Perceived supervisor job crafting, reducing demands
- RC = Role clarity
- RO = Role overload
- PRO = Proactive personality