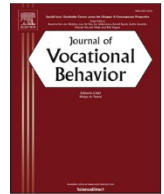




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# A person-centered investigation of two dominant job crafting theoretical frameworks and their work-related implications

Anne Mäkikangas<sup>a,\*</sup>, Wilmar Schaufeli<sup>b,c</sup><sup>a</sup> Tampere University, Finland<sup>b</sup> Utrecht University, the Netherlands<sup>c</sup> KU Leuven, Belgium

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## ABSTRACT

There are currently two main theoretical perspectives that explain how employees engage in job crafting, namely Wrzesniewski and Dutton's (2001) original theory and the Job Demands-Resources model framework by Tims et al. (2012). The purpose of this study was to investigate and compare these two perspectives on job crafting and operationalizations based thereon using a person-centered methodology. We also examined whether the use of different job crafting strategy combinations manifests in differences in work engagement and person-job fit. Study participants were Finnish managers ( $n = 419$ ) who completed both the Job Crafting Questionnaire (Slemp & Vella-Brodrick, 2013) and the Job Crafting Scale (Tims, Bakker, & Derks, 2012). Latent Profile Analysis yielded four job crafting profiles: 1) Average crafters (47%), 2) Avoidance-oriented crafters (30%), 3) Approach-oriented crafters (19%) and 4) Self-oriented task crafters (4%). *Approach-oriented crafters* were significantly more engaged and fitted better to their job than those in the other profiles. Furthermore, those in the *Average crafters* profile were more engaged and had higher person-job fit than *Avoidance-oriented crafters* or *Self-oriented task crafters*. Overall, our findings provide new implications for the theoretical categorization of job crafting and knowledge on how the use of different combinations of job crafting strategies is related to work engagement and person-job fit.

## 1. Introduction

Recent decades have seen a growing interest in occupational health psychology in how employees can, on their own initiative, develop their jobs to make them better suited to themselves. Such employee-initiated job tailoring is referred to in the literature as job crafting (Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Job crafting has been defined in several different ways in the literature, and based on these definitions, also operationalized in various ways (for a recent summary, see Hu et al., 2020). In this article, we focus on two, i.e., Wrzesniewski and Dutton's (2001) and Tims and Bakker's (2010) theoretical perspectives and the operationalizations based on them (described in detail in the next section). The differences and similarities between these job crafting perspectives have been discussed (Slemp, 2016; Zhang & Parker, 2019), but so far empirical studies focusing simultaneously on different job crafting strategies based on these frameworks are still rare (for an exception, see Hu et al., 2020).

The present study makes a unique contribution to the field by assessing Wrzesniewski and Dutton's (2001) and Tims et al.'s (2012)

\* Corresponding author at: Faculty of Social Sciences, Work Research Centre, 33014, Tampere University, Finland.  
E-mail address: [anne.makikangas@tuni.fi](mailto:anne.makikangas@tuni.fi) (A. Mäkikangas).

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job crafting perspectives and operationalizations concurrently. However, we do not confine our view to the relationships between various job crafting strategies, but instead adopt a person-centered approach (Hofmans et al., 2020) which enables us to study various job crafting profiles, namely subgroups of individuals characterized by similar use of job crafting strategies. A pioneer job crafting profile study was published by Mäkikangas (2018), but her study was limited to the perspective of the Job Demands and Resources (JD-R) model on job crafting and its operationalization (Tims et al., 2012). In this study, we will continue this promising line of research, but extend it considerably. Here, we will contribute to job crafting theorization by posing the crucial question: are there differences between job crafting strategies drawing on separate theoretical perspectives as to how individuals report using them?

This study also provides new insights into whether and how job crafting profiles will differ in work engagement (Schaufeli et al., 2002) and person-job fit (Lauver & Kristof-Brown, 2001). This is a theoretically significant question as the motive for job crafting and how to achieve the desired outcomes reportedly differ between the two theoretical perspectives on job crafting. That is, Wrzesniewski and Dutton's (2001) framework perceives job crafting primarily as a way to promote work identity and act according those values to achieve a better fit with the job, while Tims et al. (2012) emphasize balancing job demands and resources primarily to achieve better well-being and work motivation. Hence, our study will shed light on whether job crafting profiles differ according to their main theoretically assumed outcomes.

### 1.1. Ways of job crafting

Several different definitions of job crafting have been proposed (for reviews, see Hu et al., 2020; Zhang & Parker, 2019). This study focuses on the two most commonly used, on the basis of which the two leading questionnaires were also operationalized. They make it possible to assess job crafting strategies in all professions. The first of these is the original theory by Wrzesniewski and Dutton (2001), according to which job crafting refers to self-initiated physical or cognitive changes made by an employee that alter the job and its meaning to better correspond to that individual's work identity and values. According to this definition, employees can craft their jobs in three different ways: by modifying tasks, work-related social relationships, or by changing their own perceptions of their work, labeled cognitive crafting (Wrzesniewski & Dutton, 2001). Task crafting refers to an activity in which an employee makes changes to the object, quality, or quantity of job tasks. In practice, this means, for example, expanding the job to include new, more challenging, or interesting tasks. Crafting social relationships, i.e., relational crafting, means making changes to the quality and quantity of interactions and interpersonal relationships at work. Getting to know co-workers who share the same interests, counseling new employees, and participating in joint events are examples of relational crafting. Cognitive crafting refers to changes in one's own way of thinking about a job or its facets. Cognitive crafting is described, for example, by reminding oneself of the importance of one's own work, either for one's own well-being or that of the people for whom the work is done, or for the organization. Based on this definition, Slemp and Vella-Brodrick (2013) developed the Job Crafting Questionnaire (JCQ) to assess the three strategies for job crafting described above – a scale which is used in the present study.

The second job crafting definition used here is based on the Job Demands-Resources model (Bakker & Demerouti, 2017; Demerouti et al., 2001), according to which crafting is an employee-initiated activity in which employees seek to balance their job demands and resources (Tims & Bakker, 2010). Job demands in this context refer to all those features of the job that require physical or mental effort and, when excessive, cause strain and impair well-being (Bakker & Demerouti, 2017; Demerouti et al., 2001). Job resources, are all those physical, psychological, social, and organizational features of the job that contribute to the achievement of job-related goals, reduce the burden caused by job demands, and facilitate work motivation and well-being (Bakker & Demerouti, 2017).

Job crafting aiming to promote a balance between job demands and resources can take place through four different behaviors: increasing structural and social resources at work, increasing challenging job demands, or decreasing hindering job demands (Tims et al., 2012; Tims & Bakker, 2010). Increasing the structural resources of the job means, among other things, seeking to develop oneself and one's competences. Increasing the social resources of the job may be accomplished, for example, by consulting colleagues and asking for feedback from a supervisor. Increasing the challenging demands of the job may entail accepting new challenging work assignments or volunteering for interesting projects. Decreasing hindering job demands can be accomplished, for example, by ensuring that emotionally draining customer or colleague meetings are limited. These four ways of job crafting described above are included in the Job Crafting Scale (JCS) (Tims et al., 2012), utilized in the current study.

Although some conceptual resemblance is apparent between task crafting and increasing challenging job demands, as well as between relational crafting and increasing social job resources (Demerouti, 2014), the two theoretical perspectives on job crafting differ from each other in their content, purpose, and form (Zhang & Parker, 2019). That is, in the job crafting definition by Wrzesniewski and Dutton (2001) crafting is intended to change the boundaries of the job, whereas in the JD-R framework job crafting is targeted at changing the characteristics of the job. Therefore, the first definition is sometimes labeled as “role-based crafting” and the second as “resource-based crafting” (Zhang & Parker, 2019). Moreover, the purpose of the JD-R framework of job crafting is to balance the relationship between job demands and job resources to improve occupational well-being, whereas Wrzesniewski and Dutton (2001) emphasize improved work identity and meaning at work as the main motivations for job crafting (see Zhang & Parker, 2019). Furthermore, the frameworks also differ on how many job crafting strategies are named, whether the crafting is seen to be solely behavioral and/or cognitive in nature, and whether crafting could also manifest as an avoidance-type of behavior. Due to these differences, there are consequently obvious differences in how these job crafting strategies are operationalized in the JCQ and the JCS; the JCQ measures changes in task, relational and cognitive boundaries of the job, whereas the JCS focuses on capturing changes in job resources (structural and social) and demands (challenging and hindering demands).

Further similarities and differences in job crafting definitions and the operationalizations derived from them can be theorized based on approach/promotion vs. avoidance/prevention types of job crafting behavior – categorizations commonly used to map various job



crafting strategies in the literature (see Lichtenthaler & Fischbach, 2019; Zhang & Parker, 2019). Theoretically, these concepts refer to categorization presented in Elliot's (1999, 2006) approach-avoidance motivation theory and Higgins' (1997; see also Brockner & Higgins, 2001) regulatory focus theory, according to which human behavior is motivated by achieving positive outcomes, goals, and aspirations, or by safety and liability principles in order to avoid negative consequences. In the job crafting context, avoidance-type of job crafting strategies are aimed at circumventing and reducing stress, and reducing elements of job, whereas approach-type of job crafting strategies are aimed at expanding work roles and increasing the motivating aspects of a job as well as interpreting and reframing work conditions in a positive way (see Lazazzara et al., 2020).

Applying the approach-avoidance categorization to the JD-R model framework of job crafting and its measurement via the JCS, increasing one's structural and social job resources and challenging job demands represents approach-type of job crafting (Lichtenthaler & Fischbach, 2019; Mäkikangas, 2018) as these behaviors represent the motivation to expand one's existing resources and to take on new motivating tasks. In contrast, decreasing hindering job demands, through minimizing energy consumption in a stressful situation or threat of such, exemplifies avoidance-type of job crafting (Mäkikangas, 2018). The job crafting strategies included in the JCQ can all arguably represent approach-type of job crafting. Consequently, task crafting involves adding new responsibilities to enlarge current tasks and prioritize tasks that employees find interesting, thereby adding motivating elements to the job (Slemp & Vella-Brodrick, 2013). Initiating changes in the relational aspects of the job, for example by increasing interaction with others at work, also represents positive motivation and a way to broaden the boundaries of one's job. Employees are said to engage in relational crafting to satisfy their need to connect and build social relationships with others (Wrzesniewski & Dutton, 2001). Cognitive crafting for its part differs from more behavior-oriented job crafting strategies, as it represents a psychological dimension of crafting in which employees intentionally modify their perceptions of work and are thereby potentially able to make meaningful perceptual changes to the job aspects (Slemp & Vella-Brodrick, 2013; Wrzesniewski & Dutton, 2001). The essence of cognitive crafting is to make the job more satisfying and meaningful via positive framing (see Wrzesniewski & Dutton, 2001) thereby also representing approach-type of job crafting (see Lazazzara et al., 2020).

The categorization of job crafting into approach and avoidance-oriented behaviors has proven empirically relevant and usable method to map varying job crafting strategies but also demonstrated the need for further research. For example, Hu et al. (2020) found that all subscales of the JCQ and the JCS loaded on the same "approach" job crafting factor, even the decreasing hindering job demands subdimension of the JCS which is theorized to represent avoidance-type of crafting. Moreover, in her job crafting profile article, Mäkikangas (2018) identified two job crafting subgroups at the day-level among Finnish multidisciplinary rehabilitation team workers. First, so-called "active job crafters" utilized simultaneously all approach (i.e., increasing structural and social aspects of the job and challenging demands) and avoidance-type (i.e., decreased their hindering job demands) job crafting strategies included in the JCS. However, "passive job crafters" only decreased their job demands but did not utilize any of the approach-type job crafting strategies of the JCS. According to these results, it is plausible that decreasing job demands can be used in two ways with different motivations and purposes (see also Hu et al., 2020; Zhang & Parker, 2019). Used in conjunction with various approach-type of strategies decreasing job demands potentially represents adaptive job crafting behavior where employees make an effort to engage in various activities to achieve work-related goals and to actively manage stress. However, if used as a sole strategy, it potentially constitutes a maladaptive withdrawal behavior by reducing the effort invested in the job and minimizing its burdensome aspects (see Hu et al., 2020). These findings highlight the importance of investigating the use of various job crafting strategies simultaneously at the intra-individual level, as is the purpose of the present study. Consequently, our aim is to contribute to the job crafting literature by taking a person-centered approach (Hofmans et al., 2020) that has potential to reveal intra-individual heterogeneity in the use of job crafting strategies.

Compared to previous and the only existing person-centered study so far (Mäkikangas, 2018), the present study makes several important contributions and extensions. First, we investigate for the first time the possibility for quantitatively (level) and qualitatively (shape) different job crafting types based on seven job crafting strategies included in the JCS and JCQ, as earlier person-centered research investigated only four job crafting strategies based on the JD-R framework (Bakker & Demerouti, 2017). In so doing, this study identifies for the first time intra-individual configurations based on different theoretical perspectives and concomitant operationalizations. Second, in the previously published study, day-level job-crafting profiles were investigated, i.e., the focus was on job crafting strategies utilized on a certain day. In this study, job crafting strategies were measured at a general level, that is, by asking respondents to rate to what extent individuals typically used various job crafting strategies without setting any time frame. Hence, the present study has potential to reveal more variety in the use of job crafting strategies as it captures individuals' perceptions of how they habitually think and behave, compared with the perspective limited to a certain working day. Earlier research has indicated that there is stability in job crafting behaviors (Harju et al., 2016; Vogt et al., 2016) which further argues for the importance of investigating job crafting profiles, also at a more general level – which represents a typical way of job crafting measurement in the literature as well. Third, the focus of the person-centered approach is to identify typical job crafting profiles. Therefore, it is extremely useful and necessary to test job crafting profiles across different time frames and occupational settings, to see what emerges as "universal" job crafting profiles and which findings are sample- or time frame-specific. Finally, our study focuses on managers, a rather neglected occupational group in job crafting research, as the majority of earlier studies have been conducted among employees. However, there is some evidence that higher organizational position is associated with more active utilization of job crafting strategies – a relationship mainly explained by job autonomy (Roczniewska & Puchalska-Kamińska, 2017).

Using the approach-avoidance categorization of the JCQ and JCS strategies presented above and in previous studies (Hu et al., 2020; Mäkikangas, 2018) and bearing in mind that person-oriented analysis is a data-driven method, we hypothesize that:

**H1.** At least two job crafting profiles will be identified: the first profile is characterized by a frequent use of all approach-type of job

crafting strategies included in the JCQ and the JCS, and a frequent use of avoidance-type of job crafting strategy (i.e., decreasing hindering job demands). The second profile is characterized by a frequent use of avoidance-type of job crafting strategy (i.e., decreasing hindering job demands) and a low use of all approach-type of job crafting strategies.

## 1.2. Job crafting and job-related outcomes

Our aim is also to provide new insights into whether and how job crafting types evaluated on the basis of both the JCQ and the JCS differ in job-related outcomes, in this study work engagement and person-job fit. According to Wrzesniewski and Dutton (2001), employees craft their jobs either to reinforce experiences of meaningfulness, work identity, and person-job fit, or to correct a mismatch between current and intended work meaning (Wrzesniewski et al., 2013). In JD-R theorization, job crafting aims to balance the relation between job demands and resources, which facilitates job-related well-being, such as work engagement (Bakker & Demerouti, 2017; Tims et al., 2012). Therefore, our focus is to investigate whether job crafting types differ according to these criterion variables. The majority of studies so far have focused on investigating well-being relations of separate job crafting strategies. Therefore, there is need for more comprehensive research investigating the use of various job crafting strategies simultaneously and the outcomes of the combined use of job crafting strategies.

Work engagement has been intensively studied as one of the main consequences of job crafting (for meta-analyses, see Lichtenthaler & Fischbach, 2019; Rudolph et al., 2017). Work engagement refers to a relatively stable positive work-related subjective experience characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Vigor refers to employees' willingness to invest in their work and their experiences of perseverance and energy at work. Dedication means experiencing feelings of meaning, enthusiasm, inspiration about work. Absorption describes an enjoyable focus on work from which it may even be difficult to disengage (Schaufeli et al., 2002).

Research has shown that job crafting is related to work engagement. A meta-analysis including a total of 60 studies using the JCS found a strong association between job crafting and work engagement (Rudolph et al., 2017). In total, job crafting strategies explained about one-third of the variance in work engagement ( $R^2 = 0.29$ ). A particularly strong relationship was found between increasing the structural resources of job and work engagement ( $B = 0.39, p < .001$ ), although all dimensions of job crafting were statistically significantly related to work engagement; approach-type job crafting strategies positively and avoidance-type strategy – decreasing hindering job demands – negatively. Moreover, the recent meta-analysis by Lichtenthaler and Fischbach (2019) included all published and unpublished (e.g., conference presentations) studies of job crafting (149 independent samples in total). In their study, job crafting strategies were categorized into approach and avoidance types. The results showed that approach-type job crafting facilitated work engagement both in the cross-sectional situation and longitudinally. A similar result, but a negative association, was observed between avoidance-type job crafting and work engagement.

The variable-centered studies presented above have indicated fairly strong support for the positive relationships between approach-type of job crafting and work engagement, and in turn, a negative relation between avoidance-type job crafting. However, according to Mäkikangas (2018), the relationships between decreasing hindering job demands and work engagement depends on whether it is used solely or together with approach type job crafting strategies. That is, active job crafters utilizing both approach and avoidance-type strategies have reported high daily level of work engagement compared with those utilizing decreasing hindering job demands as their only job crafting strategy (Mäkikangas, 2018). Therefore, frequent and many-sided use of all kinds of job crafting strategies may produce the best result in terms of work engagement, as it represents an active way of dealing with the work situation by engaging in various job crafting activities simultaneously (see Hu et al., 2020). Therefore, our second hypothesis is:

**H2.** Individuals with job crafting profiles using approach-type job crafting strategies will report higher levels of work engagement than individuals using only avoidance-type job crafting.

The importance of job crafting for person-job fit has so far been studied much less than work engagement, although theoretically it can be assumed to be one of the main consequences of job crafting (Wrzesniewski et al., 2013; Wrzesniewski & Dutton, 2001). Person-job fit refers to the subjective experience of how well an employee feels suited to his or her job (Lauver & Kristof-Brown, 2001). Research has demonstrated that the match between a person and the various facets of the work environment enhances employees' identification with the organization and facilitates positive work-related attitudes and behaviors (for reviews, see Kristof-Brown et al., 2005; Verquer et al., 2003). Person-job fit has been defined in a number of alternative ways (see e.g., Kristof-Brown et al., 2005), but in this study we focus on employees' subjective evaluations of the compatibility between their own skills and the job requirements (Lauver & Kristof-Brown, 2001). This facet of person-job fit has a strong focus on the job and whether employees' knowledge, skills and abilities match its requirements. It was therefore chosen as our target outcome instead of other person-job fit constructs.

Although person-job fit has been an understudied outcome of job crafting, some studies on the subject can be found. For example, job crafting has been found to be positively related with person-job fit (Chen et al., 2014; Lu et al., 2014; Niessen et al., 2016). It should be noted, however, that the job crafting scales used varied between these studies and neither the JCQ nor the JCS was utilized. Moreover, Tims et al. (2016) found that job crafting modeled through the JCS total factor promoted person-job fit over a one-week period. These findings together with job crafting theorizing (Wrzesniewski & Dutton, 2001) indicate that job crafting may well contribute to the experience of person-job fit. Therefore, similar differences are expected to emerge as in work engagement:

**H3.** Individuals with job crafting profiles using approach-type job crafting strategies will report high levels of person-job fit compared to individuals using only avoidance-type job crafting.



## 2. Methods

### 2.1. Participants

The data used in this study was collected as a part of the research project “Occupational well-being from individual and interpersonal perspectives”, funded by the Academy of Finland. “Managers’ job crafting and well-being” was conducted as a subproject within the larger research project. Its participants were municipality managers working in three cities in Northern and Eastern Finland and in the Social Welfare and Health Care Joint Authority located in Eastern Finland.

Cross-sectional data was collected using the Webropol survey tool. The questionnaire was sent to the work email addresses of a total of 975 target participants. Participants no longer working in managerial positions or who received the email twice were removed ( $n = 20$ ) from the target group. After this, the target group consisted of 955 people. They were informed about the survey before it was sent to them, and a maximum of three reminders were sent to those who had not completed the survey by the deadline. In total, 419 managers completed the survey, resulting in a response rate of 44%. The organization-specific response rates varied between 40% and 59%. This study utilizes combined data from all four organizations. The use of combined data was justified as the General Linear Models (GLM) conducted (in which the organization was set a fixed factor) revealed that there were no organizational differences in any of the variables of interest and organization explained <1% of them.

Of all participants, 54% worked in a large city in Northern Finland, 22% worked in the Social Welfare and Health Care Joint Authority, and the remaining 24% (17% and 7%) worked in cities in Eastern Finland. The majority (62.5%) were female, and 37.5% were male. The mean age was 53 years (range 29–66). Almost half of the respondents (47%) had a master's degree and a quarter (26%) had a bachelor's degree. The majority (92%) had a permanent employment contract, 8% worked on a fixed-term contract. Almost half (46%) of the managers worked in lower middle management and approximately a quarter (23%) in lower management. The average working hours were 40 h per week ( $SD = 6.01$ ). The respondents had worked in managerial positions for an average of 14 years: more than half of them (53%) had worked as managers more than ten years, and over a third (36%) had three to ten years of managerial experience. The average number of subordinates was 38 per manager. The participants were representative of Finnish managers in health care and social welfare in terms of gender, age, level of management, and employment contract (Markkanen & Tuomisoja, 2014).

### 2.2. Measures

*Job crafting* was assessed with two different measures. The first was the *Job Crafting Questionnaire* (JCQ; Slemp & Vella-Brodrick, 2013), which includes 15 items. Each job crafting strategy – task crafting, relational crafting, and cognitive crafting – was assessed through five items. An authorized translator translated the questionnaire into Finnish and an independent backtranslation was done by another translator. Task crafting was assessed using items such as “Change the scope or types of tasks that you complete at work”, relational crafting was assessed using items such as “Make an effort to get to know people well at work”, and cognitive crafting was assessed using items such as “Think about how your job gives your life a purpose”. The respondents evaluated the items on a Likert scale 1 (=never)–5 (very often).

The other job crafting questionnaire used was the *Job Crafting Scale* (JCS) developed by Tims et al. (2012). It contains 21 items evaluating four job crafting strategies: increasing structural job resources (e.g., “I try to develop myself professionally”), increasing social job resources (e.g., “I ask others for feedback on my job performance”), increasing challenging job demands (e.g., “If there are new developments, I am one of the first to learn about them and try them out”), and decreasing hindering job demands (e.g., “I make sure that my work is mentally less intense”). Six items assessed decreasing hindering job demands, and the other strategies were assessed through five items each. The scale translation provided by the Finnish Institute of Occupational Health was used (Hakanen & Perhoniemi, 2012). The response scale ranged from 1 (=never) to 5 (=very often).

*Work engagement* was assessed with the nine-item version of the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006; see also Schaufeli et al., 2002). Each dimension of work engagement is assessed using three items. For example, the item “At my job, I feel

**Table 1**  
Descriptive information on the study variables ( $N = 416$ ).

Variables	<i>M</i>	<i>SD</i>	$\alpha$	1	2	3	4	5	6	7	8
1. JCQ: task	3.12	0.53	0.67	–							
2. JCQ: relational	3.26	0.62	0.76	0.32***	–						
3. JCQ: cognitive	3.27	0.66	0.76	0.27***	0.36***	–					
4. JCS: structural resources	4.08	0.45	0.68	0.43***	0.34***	0.23***	–				
5. JCS: social resources	2.83	0.56	0.70	0.24***	0.33***	0.25***	0.23***	–			
6. JCS: challenging demands	3.45	0.60	0.74	0.55***	0.39***	0.28***	0.54***	0.27***	–		
7. JCS: decreasing demands	2.36	0.52	0.68	0.03	–0.06	0.11*	–0.11*	0.06	–0.13**	–	
8. Work engagement	5.87	0.95	0.94	0.19***	0.32***	0.26***	0.40***	0.22***	0.37***	–0.19***	–
9. Person-job fit	4.98	0.62	0.87	0.17**	0.28***	0.16**	0.33***	0.04	0.31***	–0.16**	0.41***

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

strong and vigorous” measures vigor, “I am enthusiastic about my job” measures dedication, and “I am immersed in my work” measures absorption. The respondents evaluate the items on a seven-point scale, 1 (=never) to 7 (=every day). The UWES has also proven a reliable measure of work engagement in data from Finnish employees (for validity evidence, see Seppälä et al., 2009).

*Person–job fit* was assessed using the Perceived Person–Job Fit measure developed by Lauver and Kristof-Brown (2001), which evaluates fit as the compatibility of the individual's skills and the demands of the job. An authorized translator translated the questionnaire into Finnish for the research project and backtranslation was done by an independent translator. It consists of five items, such as “My abilities fit the demands of this job” and “My personality is a good match for this job”. Respondents indicate their level of agreement with each statement on a Likert scale ranging from 1 (=strongly disagree) to 6 (=strongly agree).

Table 1 shows the descriptive information and correlations between the study variables.

### 2.3. Statistical analysis

As preliminary analyses, the construct validity of the used questionnaires was investigated by paying special attention to possible overlap between the job crafting questionnaires. First, factor structures of the JCQ and the JCS were investigated separately using a confirmatory factor analysis. The factor structures to be tested were formulated on the basis of existing theory and empirical research: the JCQ was assumed to include three (Slemp & Vella-Brodrick, 2013) and the JCS four (Tims et al., 2012) factors. In the second phase, the interrelationships between the JCQ and the JCS were investigated by combining them within the same structural equation model and alternative factor models (i.e., one-, six-, and seven-factor models) were tested and compared. The analyses were performed using Mplus (version 8.5) (Muthén & Muthén, 1998–2017).

The parameters of confirmatory factor analyses and structural equation models were estimated using the maximum likelihood with robust standard errors (MLR) method (Muthén & Muthén, 1998–2017). Missing data were processed using FIML (full information maximum likelihood) estimation. The suitability for the data of the models tested models was assessed using several fit indices, which were the  $\chi^2$  value (Bollen, 1989); RMSEA (Root Mean Square Error of Approximation; Steiger, 1990) and SRMR (Standardized Root Mean Square Residual), for which values of 0.05 or less indicate good fit and values of 0.06 to 0.08 satisfactory fit (Schermelleh-Engel et al., 2003); the CFI (Comparative Fit Index; Bentler, 1990), and the TLI (Tucker-Lewis Index; Tucker & Lewis, 1973), for which values above 0.90 indicate good fit of the model to the data (Hu & Bentler, 1999).

In the second phase, Latent Profile Analysis (LPA; McLachlan & Peel, 2000; Sterba, 2013) was used to investigate profiles based on the seven job crafting strategies drawn from the JCQ and the JCS. The means of the profile indicators (i.e., job crafting strategies) were allowed to be freely estimated across the profiles, but variances were constrained to be equal. The parameters of the models were estimated by the MLR, and the FIML method was used to process the missing data.

To determine the number of latent profiles, we used along with the theoretical reasoning and meaning of the profiles, the following fit indices and statistical tests: 1) AIC index (Akaike Information Criterion), 2) BIC index (Bayesian Information Criterion), 3) aBIC index (adjusted Bayesian Information Criterion), 4) VLMR test (Vuong-Lo-Mendell-Rubin Test), 5) LMR test (Lo-Mendell-Rubin Test), and 6) BLRT test (Bootstrap Likelihood Ratio Test). Lower AIC and BIC values indicate the superiority of the model under consideration compared to other solutions. The BLRT, VLMR and LMR tests examine whether the  $k$  profile solution has a better fit ( $p < .05$ ) than the  $k-1$  profile solution. We also utilized an entropy value which indicates the precision with which the cases are classified into profiles: the closer the entropy value is to 1, the better the identified profiles differ (Celeux & Soromenho, 1996). An entropy value  $>0.70$  is considered acceptable (Celeux & Soromenho, 1996).

In the third and final phase, we examined whether and how job crafting profiles differed in work engagement and person–job fit. To test these differences, auxiliary measurement-error-weighted-method (BCH) was used, which evaluates the mean scores across profiles for continuous auxiliary variables (Asparouhov & Muthén, 2014a, 2014b). This method is preferable due its satisfactory estimation of standard errors and because the external variables (here, work engagement and person–job fit) do not affect the individuals' probabilities of belonging to the latent profiles. Parameter comparison in this method is done by the Wald chi-square test (Asparouhov & Muthén, 2014a, 2014b).

## 3. Results

### 3.1. Preliminary analyses

For the JCQ, the theoretically expected three-factor model was empirically supported, since after estimating the error covariance between two pairs of scale items,  $\Delta\chi^2(2) = 134.36, p < .001$ , the model fitted the data well,  $\chi^2 = 177.29, df = 85, p < .001$ , RMSEA = 0.05, CFI = 0.93, TLI = 0.91, SRMR = 0.05. The fit of the three-factor model was compared with the nested one-factor model using the Satorra-Bentler scaled  $\chi^2$  difference test (Satorra & Bentler, 2001). According to the test result, the modified three-factor model was significantly better than that of the one-factor model, in which all 15 job crafting items were set to load on the same factor,  $\Delta\chi^2(5) = 1419.91, p < .001$ .

For the JCS, the assumed four-factor model fitted the data acceptably after estimating five pairs of error covariances,  $\chi^2 = 331.19, df = 178, p < .001$ , RMSEA = 0.04, CFI = 0.92, TLI = 0.91, SRMR = 0.06. The Satorra-Bentler scaled  $\chi^2$  difference test (Satorra & Bentler, 2001) showed that the fit of the model was statistically significantly better than the model without estimated error covariances,  $\Delta\chi^2(5) = 254.57, p < .001$ . The four-factor model was also compared with the alternative and nested structure on the one-factor model using the scaled  $\chi^2$  difference test. The results showed that the modified four-factor model also fitted significantly better than the one-factor model, in which all the 21 job crafting items were set to load on the same factor,  $\Delta\chi^2(11) = 657.32, p < .001$ .

Next, the factor models of the JCQ and the JCS tested above were estimated in the same model. This combined model, including altogether seven factors, fitted the data acceptably,  $\chi^2 = 1086$ ,  $df = 566$ ,  $p < .001$ , RMSEA = 0.05, CFI = 0.90, TLI = 0.89, SRMR = 0.06. The model fitted the data significantly better,  $\Delta\chi^2(28) = 1284.90$ ,  $p < .001$ , than the model in which the dimensions of the JCQ and the JCS were estimated to load on the same factor,  $\chi^2 = 2642.40$ ,  $df = 594$ ,  $p < .001$ , RMSEA = 0.10, CFI = 0.55, TLI = 0.42, SRMR = 0.10. Moreover, the seven-factor model was further compared with the two alternative six-factor models, namely a model with relational crafting of the JCQ and increasing social job resources of the JCS loading on the same factor, and a model with task crafting of the JCQ and increasing challenging job demands of the JCS forming their own factor (remaining five factors were formed by the original theorization). However, the seven-factor model fitted the data significantly better than the alternative models,  $\Delta\chi^2(6) = 205.19$ ,  $p < .001$  and  $\Delta\chi^2(6) = 38.79$ ,  $p < .001$  respectively.

These results permit the conclusion that the JCQ and the JCS represent separate, empirically different ways of assessing job crafting. Decreasing hindering job demands did not correlate significantly with any of the other job crafting dimensions. The relationships between the job crafting factors are shown in Fig. 1.

The estimated one-factor models for work engagement and person-job fit both showed acceptable fit with the data after estimating one error covariance pair in both,  $\chi^2 = 131.51$ ,  $df = 26$ ,  $p < .001$ , RMSEA = 0.08, CFI = 0.94, TLI = 0.93, SRMR = 0.03 and  $\chi^2 = 7.60$ ,  $df = 4$ ,  $p = .10$ , RMSEA = 0.05, CFI = 0.99, TLI = 0.97, SRMR = 0.02, for work engagement and person-job fit respectively.

### 3.2. Latent profile analyses

Table 2 reports the fit indices and tests associated with the latent profile analysis. Both the VLMR and LMR tests converged on the three-profile solution, but its entropy value was below acceptable. Moreover, the BIC value reached its lowest point for the three-profile solution and increased again for the five- and six-profile solutions. The AIC and aBIC reached their lowest point for the six-profile solution. However, one of its profiles was very small, consisting of only 0.004% of the participants. The BLRT did not converge on any specific profile solution. These results suggest that the optimal number of profiles was four or five, which were next examined more specifically. Statistically, the four-profile solution replicated better than the five-profile solution. Entropy values and average latent profile posterior probabilities were fairly equal between the four- and five-profile solutions. The comparison of the profile content revealed that in up to four profiles, each increase resulted in a qualitatively meaningful novel profile. However, in a five-profile solution no qualitatively new profiles emerged, and two profiles only showed arbitrary mean level differences in job crafting strategies. Based on all available information, a four-profile solution was selected for the subsequent analyses.

Fig. 2 shows the results of the four-profile solution in more detail. Profile 1 characterized individuals with frequent use of all job crafting strategies included in the JCQ and the JCS. This largest profile contained 47% of the participants and was labeled *Average crafters*. Profile 2 was characterized by above average use of decreasing hindering job demands, coupled with very low use of all approach-type job crafting strategies. This profile was labeled *Avoidance-oriented crafters* and contained one third of the participants

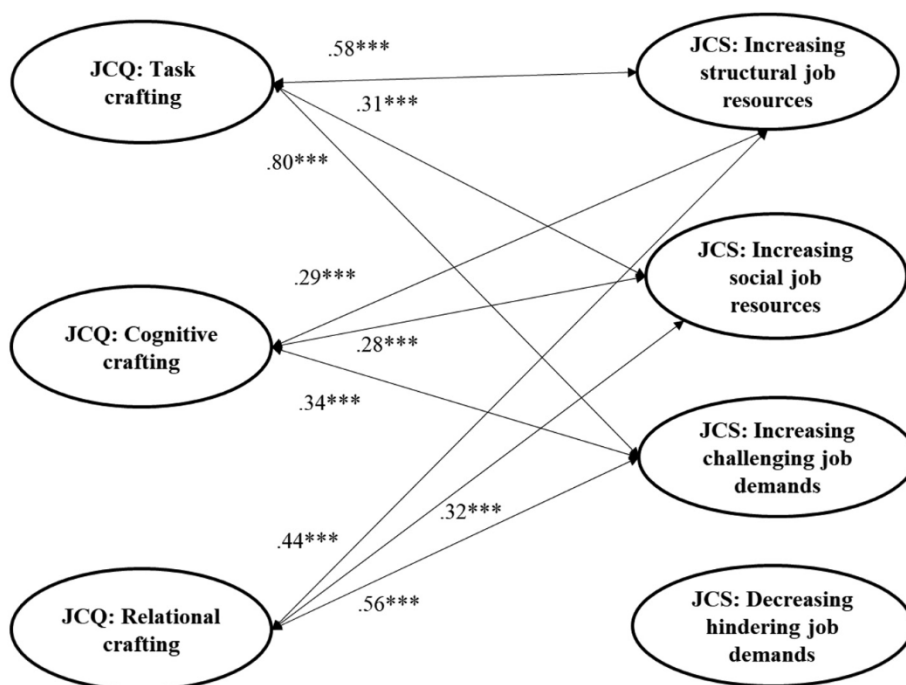


Fig. 1. Relationships between the Job Crafting Questionnaire and the Job Crafting Scale.

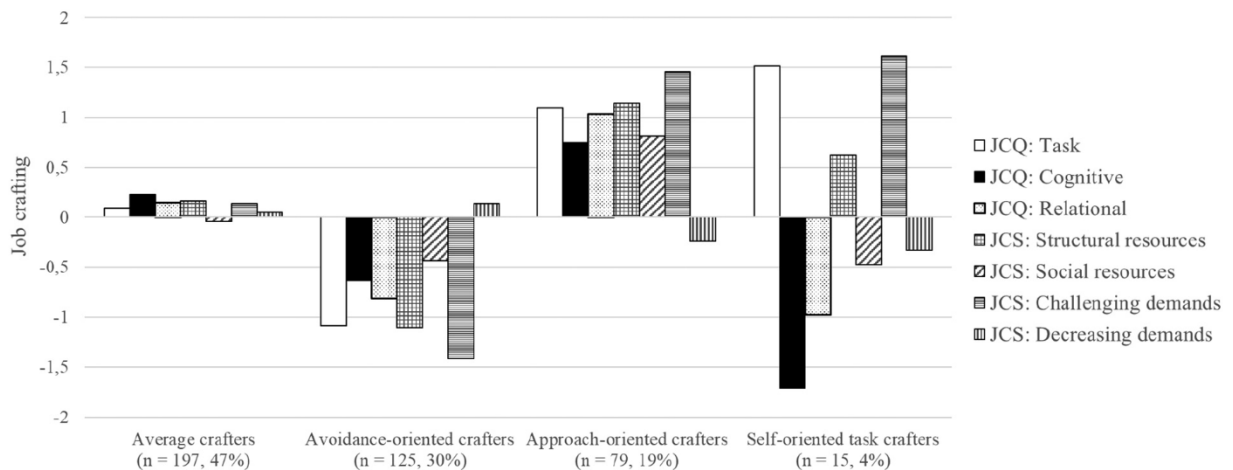
Note. Correlations within the JCQ and the JCS are omitted for clarity.



**Table 2**  
Enumeration of fit statistics for latent job crafting profiles.

Number of profiles	LL	FP	AIC	BIC	aBIC	VLMR ( <i>p</i> )	LMR ( <i>p</i> )	BLRT ( <i>p</i> )	Entropy	Latent profile proportions %
1	−4128.4	14	8284.9	8341.3	8296.8	–	–	–	–	100
2	−3939.9	22	7923.9	8012.6	7942.7	<.001	<.001	<.001	0.73	45/55
3	−3911.0	30	7882.0	8002.9	7907.7	<.001	<.001	<.001	0.65	29/49/22
4	−3890.1	38	7856.1	8004.3	7888.7	.166	.172	<.001	0.74	30/4/47/19
5	−3873.5	46	7838.9	8024.4	7878.4	.125	.130	<.001	0.74	3/34/44/3/16
6	−3860.9	54	7829.8	8047.4	7876.1	.399	.404	<.001	0.74	0.004/35/3/10/41/10

*Note.* LL = log-likelihood; FP = free parameters; AIC = Akaike information criterion; BIC = Bayesian information criterion; aBIC = sample-size adjusted Bayesian information criterion; VLMR = Vuong-Lo-Mendell-Rubin test; LMR = Lo-Mendell-Rubin test; BLRT = Bootstrapped likelihood ratio test.



**Fig. 2.** Latent job crafting profiles.

*Note.* The y axis refers to standardized level of job crafting strategies.

(30%). Profile 3 was characterized by above-average use of all approach-type job crafting strategies that the JCS and JCS contained, and below average use of decreasing hindering job demands strategy. This profile, labeled *Approach-oriented crafters*, consisted of one fifth (19%) of the participants. The fourth and smallest profile included the remaining 4% of the participants which were characterized by above-average use of task crafting, increasing structural job resources, and increasing challenging job demands. This profile was also characterized by very low use of cognitive crafting and also below-average use of relational and social resources crafting. Moreover, decreasing hindering job demands was below average. This profile was labeled *Self-oriented task crafters*.

To conclude, our first hypothesis was supported, as our results yielded a profile among participants utilizing both approach- and avoidance-type strategies (*Average crafters*) and a profile among participants only decreased their hindering job demands (*Avoidance-oriented crafters*). Besides the expected profiles, our person-centered analysis yielded *Approach-oriented* and *Self-oriented task crafters* profiles.

**Table 3**  
Differences in job crafting profiles in work engagement and person-job fit.

Distal outcome variable	1) Average crafters <i>M</i> (S.E)	2) Avoidance-oriented crafters <i>M</i> (S.E)	3) Approach-oriented crafters <i>M</i> (S.E)	4) Self-oriented task crafters <i>M</i> (S.E)	Wald's $\chi^2/p$ -value	Profile differences
Work engagement	6.03 (0.07)	5.25 (0.10)	6.52 (0.08)	5.15 (0.40)	90.11, <i>p</i> < .001	1 > 2***, 4* 3 > 1***, 2***, 4**
Person-job fit	4.98 (0.05)	4.74 (0.06)	5.33 (0.08)	4.75 (0.19)	36.45, <i>p</i> < .001	1 < 3** 2 < 1**, 3*** 4 < 3**

*Note.* Analyses were performed with BCH procedure in MPlus. Response scales 1–7 for work engagement and 1–6 for person-job fit.

\* *p* < .05.

\*\* *p* < .01.

\*\*\* *p* < .001.



### 3.3. Differences in work engagement and person-job fit between the job crafting profiles

Table 3 reports the job crafting profile differences in work engagement and person-job fit. The overall Wald's chi square test showed that there were statistically significant differences in work engagement. *Approach-oriented crafters* reported the highest level of work engagement and pairwise comparisons revealed that they differed significantly from the other profiles. Moreover, *Average crafters* were more engaged in their work than were *Avoidance-oriented crafters* or *Self-oriented task crafters*, both of whom reported the lowest levels of work engagement. Thus, our hypothesis 2 was only partly supported.

The results further revealed that the levels of person-job fit were highest among *Approach-oriented crafters* and these differed significantly from all the other job crafting profiles (see Table 3). Furthermore, *Avoidance-oriented crafters* experienced significantly lower person-job fit than *Average crafters*. No differences emerged between *Avoidance-oriented crafters* and *Self-oriented Task crafters*. Thereby, the results partly supported hypothesis 3.

## 4. Discussion

In contrast to earlier studies on job crafting which have largely adopted a variable-centered approach to examining the respective effects of each job crafting strategy, we adopted a person-centered approach and investigated job crafting profiles based on two job crafting surveys and their differences in theoretically important work-related outcomes. Using data including a wide range of job crafting information gathered from over 400 managers, we were able to identify altogether four profiles that contribute to our understanding of job crafting configurations and demonstrate their implications for work engagement and person-job fit. Overall, our results revealed that the investigation of job crafting profiles, i.e., individuals' reliance on certain job crafting strategies instead of some other strategies, is helpful in understanding how individuals tailor their jobs and the key implications of this.

### 4.1. Main findings and theoretical implications

The results provided empirical evidence to support the proposition that individuals use combined job crafting strategies differently in order to tailor their jobs. Based on participants' responses on the JCQ and the JCS, latent profile analysis revealed the presence of four job crafting profiles, namely *Average*, *Avoidance-oriented*, *Approach-oriented*, and *Self-oriented task crafters*. As predicted in hypothesis 1, the results yielded a profile, i.e., *Average crafters*, characterized by frequent use of all approach-type job crafting strategies included in the scales, combined with the use of avoidance-type strategy (i.e., decreasing hindering job demands from the JCS). Moreover, as expected, a profile was identified among participants which was characterized by above-average use of decreasing hindering job demands and very low use of approach-type of job crafting strategies, namely *Avoidance-oriented crafters*. Specifically, these findings support and share common characteristics with the job crafting profiles identified in the earlier day-level profile study (Mäkikangas, 2018). Besides these two profiles, our results yielded two smaller profiles, thereby advancing the understanding of job crafting profile configurations. One of these was in line with the job crafting strategy approach-avoidance categorization (see Lichtenhaler & Fischbach, 2019; Zhang & Parker, 2019), characterized by high use of all approach-type job crafting strategies and low use of avoidance-type of strategy. Moreover, our findings also revealed a job crafting profile which is quite rare considering the results of earlier studies and theorization. That is, *Self-oriented task crafters* only utilized strategies aimed to expand their current tasks, seek new challenges, and develop themselves, and neglecting both social and cognitive crafting. It is plausible that this profile is sample-specific and thus typical among managers aiming to improve the work itself, but it may also reflect a lack of well-being and dissatisfaction with the current job as indicated by the well-being comparisons described next.

In addition to identifying job crafting profiles, we also investigated whether the profiles identified differed in work engagement and person-job fit. The results revealed that *Avoidance-oriented* and *Self-oriented task crafters* displayed lower levels of work engagement and person-job fit than *Average* and *Approach-oriented crafters*. Consequently, our hypotheses 2 and 3 – suggesting higher levels of engagement and fit among individuals using approach-type job crafting strategies – was only partly supported. Overall, these results among the two profiles (i.e., *Avoidance-* and *Approach-oriented crafters*) were in line with the assumptions and prior theorizing that the use of approach-type job crafting strategies are linked to high levels and avoidance-type strategies to low levels of work engagement and person-job fit. The results concerning *Average crafters* also confirmed earlier findings (Mäkikangas, 2018), that is, decreasing hindering job demands was not harmful to work-related outcomes if used along with a variety of approach-type job crafting strategies.

The detrimental effects of using decreasing hindering job demands as a sole job crafting strategy – as evident among *Avoidance-oriented crafters* – may be explained by the maladaptive behavior that is directed to distract the employee from the negative aspects of the job and to conserve energy, but as approach-type of job crafting strategies are absent, this also reduces the possibility of maintaining or fostering motivational aspects of the job (see also Hu et al., 2020). The use of avoidance-type of job crafting as a sole strategy may also be a reaction to occupational well-being problems, as in an earlier study burnout was found to predict increased use of decreasing hindering job demands strategy (Hakanen et al., 2018).

However, low work engagement and person-job fit evident among *Self-oriented task crafters* was a counterintuitive and unexpected finding. Despite its seemingly positive nature, i.e., high utilization of several approach-type job crafting strategies, it may be that the profile describes individuals dissatisfied with the current job and striving to change the situation by utilizing job crafting strategies to correct a mismatch between current and intended work and well-being. A plausible explanation may also be linked with the role of cognitive crafting, which was absent among participants belonging to this profile. It is likely that cognitive crafting may actually be the key to producing beneficial work-related correlates. Via reframing and sensemaking processes of cognitive crafting, individuals are able to intentionally enact, that is, to put job crafting into action and to conduct a specific type of crafting behavior to their advantage

(Melo et al., 2021). When cognitive crafting is absent, constant striving for new tasks and demanding challenges may not result in the desired mindset of meaningful work and simultaneously positive purpose. Actually, without feelings of meaningfulness and positive purpose of work, the job crafting behavior evident among *Self-oriented task crafters* may even share some characteristics with a workaholic way of working (see e.g., Mäkikangas et al., 2013).

Our findings complement earlier job crafting theorizing in several crucial respects. *First*, we are among the first – as far as we know – to adopt a person-centered approach to explore job crafting strategy use based on two theoretical perspectives simultaneously. Our variable-centered results demonstrated that job crafting strategies drawn from different theoretical perspectives were empirically different constructs. They did not, however, differ greatly in how individuals reported using them. Moreover, theoretically cognitive and behavioral approach-type job crafting strategies are differentiated (Zhang & Parker, 2019), but this theoretical division was not evident in how the study participants reported using these strategies. Instead, among the two profiles with beneficial well-being outcomes, namely among *Average* and *Approach-oriented crafters*, both behavioral and cognitive job crafting strategies were utilized in tandem. In comparison, the use of cognitive crafting was low among *Avoidance-oriented* and *Self-oriented task crafters*. These results provide support for the recent theorization on the crucial role of cognitive crafting in preconditioning and facilitating of the behavioral form of job crafting strategies in practice (Melo et al., 2021).

*Second*, our results reveal in line with earlier empirical research (Hu et al., 2020; Mäkikangas, 2018) that theoretical demarcation between approach-type and avoidance-type job crafting strategies is not so clear-cut in practice. Theoretically these orientations have been separated (Zhang & Parker, 2019) and used as main categorization criteria in job crafting strategies in variable-centered research (Lichtenthaler & Fischbach, 2019). However, among the most typical profile, i.e., *Average crafters* consisting of almost half of our participants, decreasing of hindering job demands was used alongside all approach-type job crafting strategies with beneficial consequences. However, among the two other profiles, namely *Approach-oriented* and *Avoidance-oriented crafters*, the theoretically assumed differences were clearly apparent. That is, *Approach-oriented crafters* utilized all the approach-type strategies, but did not decrease hindering job demands, whereas the opposite pattern was evident among *Avoidance-oriented crafters*. To conclude, the person-centered approach to reveal the most typical combinations of job crafting strategies used demonstrated the challenge to theoretically divide complex behavior into strict categories in practice. Instead, among the most typical profile identified, average-level use of all job crafting strategies was evident, thus demonstrating the importance of mean-level inspection together with multiple interactions for understanding the use of job crafting strategies and their implications.

*Third*, theoretically assumed outcomes – work engagement and person-job fit – did not differ between the job crafting theoretical frameworks and operationalizations based on these. Instead, the combination of various job crafting strategies produced a beneficial level in both engagement and fit, not particularly certain job crafting strategies included in the JCQ or the JCS. Moreover, person-job fit proved to be an equally important correlate of job crafting behavior as work engagement, which has attracted greater research attention.

#### 4.2. Practical implications

The results also have important implications in practice. Our findings highlight that even moderate use of job crafting strategies is beneficial for experiences of work engagement and person-job fit. Thus, the utilization of job crafting strategies does not need to be exceptionally intensive, but versatility is important. In job crafting interventions, individuals are typically encouraged to design their personal job crafting plans (for a review of crafting interventions, see Demerouti et al., 2020). It is important that employees participating in interventions are guided to pursue all kinds of job crafting strategies. It is essential that cognitive crafting, currently rather neglected in the European job crafting research tradition, also be emphasized among the targets of the interventions. It might be appropriate to begin interventions by pondering about the meaning of work and reminding participants of its positive aspects before starting to design more behaviorally focused job crafting plans. Moreover, reasonable and justified use of decreasing hindering job demands should also be included in the intervention. Its use is not currently recommended due its negative outcomes, however, reasonably used along with other approach type job crafting strategies, it may be incorporated into daily activities intended to prioritize tasks and achieve work-related goals.

This study was among the first to investigate job crafting among managers, who have typically been a neglected occupational group in job crafting research. Our study demonstrated that 70% of the managers studied crafted their current jobs using approach-type of strategies, as 30% only decreased their hindering job demands. Although working in a managerial position is demanding, supervisors could and should set a good example of job crafting themselves and also offer their subordinates autonomy and trust to develop their own work. It might also be valuable to highlight the benefits of job crafting in leadership programs and training, together with work supervision for managers. There is some recent evidence that managers' job crafting actually facilitates the financial performance of the company (Shin et al., 2020), and thus is also a much needed and recommended form of job development among individuals working in managerial positions.

This study also has implications for future job crafting research. Both of the job crafting questionnaires used – the JCQ and the JCS – proved to be useful in terms of their psychometric properties, as also found in other validation studies conducted in several countries (Bakker et al., 2018; Eguchi et al., 2016; Letona-Ibañez et al., 2019; Schachler et al., 2019). However, when considering the choice of job crafting survey, it is worth considering the substantive differences between the questionnaires. These are not particularly extensive as regards assessing task crafting, that is, whether to expand one's own job description by increasing the number of tasks, looking for more challenges in the job, or by improving one's own competence. Instead, the crafting of social relations at work is measured very differently, so it is good to be aware of these differences and to choose a survey that is appropriate to the sample being studied: the JCQ's relational crafting describes the desire and motivation to get to know co-workers and actively participate in mentoring and joint



events, while the JCS evaluates seeking and receiving social support and feedback from supervisors and co-workers. This also explains why the association between these factors is only moderate. In the present sample of managers, the average level of increasing social resources was lower than the level of relational crafting, which would favor estimating social relationship crafting among managers via the JCQ.

#### 4.3. Limitations and directions for future research

Despite the noteworthy strengths of the study, there are certain limitations that should be addressed. The first weakness of the study is its cross-sectional design. Although it can be considered to be quite suitable for job crafting profile investigation, the relationships to theoretically defined outcomes should be critically assessed. Due to the cross-sectional design, it is not possible to determine whether job crafting leads to an increase in work engagement and person-job fit, or whether engaged individuals experiencing high fit with their jobs craft their jobs more. Research has shown that these relationships are reciprocal for the approach type of job crafting and work engagement (Lichtenthaler & Fischbach, 2019). The second weakness of the study is the use of self-report data, which is on the one hand the most usual and adequate way to assess individuals' experiences of job crafting and well-being, but on the other hand may strengthen the perceived relationships due to individuals' systematic response tendencies. However, the response scales used varied between variables, which may reduce the problem of common method bias associated with self-assessment methods (Podsakoff et al., 2003). Third, relating to the generalizability of the current results, it should be noted that the sample consisted of employees working in managerial positions in social and health care organizations and cities. Thus, the results of the study cannot be directly generalized to other professional groups or supervisors working in different industries. Fourth, our response rate was 44%, which is above the average for organization-based samples (Baruch & Holtom, 2008), but still leaves room to question whether there was attrition in the sample relating, for example, to level of well-being. Fifth and finally, we focused only on a certain facet of person-job fit (Lauver & Kristof-Brown, 2001). Therefore, a variety of other fit-related constructs are worth investigating in the future.

In the future, longitudinal studies are needed to further investigate potential causal relationships between job crafting profiles and work-related outcomes. The use of a longitudinal design would also help to determine whether there is consistency in job crafting profile memberships across time. Theoretically job crafting is said to possess a processual nature and vary from day-to-day (Wrzesniewski & Dutton, 2001), but Mäkikangas (2018) identified high consistency in day-level job crafting profiles across one week. However, longer time lags including several measurements and statistical methods such as transition analysis are needed in order to investigate this issue thoroughly. Moreover, it remains important for future research to rely on more diversified samples in terms of professions. It may be that the forms and options for crafting differ across occupational fields and thus, the possibility of profession-specific job crafting profiles should be considered. Also, more representative samples are needed in terms of sample sizes. Although the sample size used is dependent on the complexity of the model tested, it is good to be aware of how sample size affects the number of the profiles identified. That is, in small datasets (e.g., <200) only the most typical profiles will be identified and smaller ones may be missed, whereas in large samples (e.g., >500) atypical profiles may also be identified (Meyer & Morin, 2016; Vargha et al., 2016). As the LPA is known to easily overextract latent profiles (see e.g., Lubke & Neale, 2006), small profiles, such as *Self-oriented task crafters* identified in here, require further replication with larger samples.

## 5. Conclusions

To conclude, our study supports the usefulness of the person-centered approach in understanding job crafting behaviors, as it highlighted various within-person crafting strategy configurations and their unique work-related outcomes that would have been missed with a variable-centered approach. According to these results, it is obvious that strict theoretical categorizations do not reveal the diversity of job crafting behavior in practice. Consequently, our results underscore the importance of continuing person-centered research to achieve greater insight into the complexity of the interplay of job crafting strategies and their implications.

#### CRedit authorship contribution statement

Conceptualization: Anne Mäkikangas and Wilmar B. Schaufeli; Methodology: Anne Mäkikangas; Formal analysis: Anne Mäkikangas; Investigation: Anne Mäkikangas; Resources: Anne Mäkikangas; Data curation: Anne Mäkikangas; Writing—original draft preparation: Anne Mäkikangas and Wilmar B. Schaufeli; writing—review and editing: Anne Mäkikangas and Wilmar B. Schaufeli; Visualization: Anne Mäkikangas; Supervision: Anne Mäkikangas; Project administration: Anne Mäkikangas; Funding acquisition: Anne Mäkikangas. Both authors have read and agreed to the published version of the manuscript.

#### Declaration of competing interest

We attest that the material presented here is based on original research by the authors. Moreover, this manuscript has not been submitted to, nor is under review at, another journal or other publishing venue. Both authors have participated in conception and design, and analysis and interpretation of the data; drafting the article; and approval of the final version.

The authors have no affiliation with any organization with a direct or indirect financial interest in the subject matter.



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