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Workplace Well-Being: The Role of Job Crafting and Autonomy Support

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Abstract

Studies have found that job crafting and employee well-being are correlated. Less is known, however, about the contextual variables that support or thwart job crafting within an organization. The present study examined perceived autonomy support as one such contextual factor. Working adults ($N = 250$) completed a battery of measures on autonomy support, job crafting, and workplace well-being. A hypothesized model in which perceived autonomy support predicts job crafting, which in turn predicts workplace well-being was tested using structural equation modeling. The hypothesized model fit the data well; however, a competing model in which autonomy support and job crafting were separate, but correlated direct predictors of well-being provided a better fit to the data. Supplemental analyses suggested a synergistic relationship between job crafting and autonomy support in organizations, showing employees with the highest well-being did the most job crafting and experienced the highest amount of perceived autonomy support. Findings underscore the importance of both individual factors and contextual factors in supporting workplace well-being.

Keywords: Organizational behavior, Well-being, Job crafting, Autonomy support, Social context, Model testing

Background

Workplace well-being is recognized as a fundamental element of successful organizations, contributing to desirable outcomes such as job retention and enhanced performance (Harter et al. 2002; Warr 1999). Employees' expectations about the workplace are expanding, with many looking for employment that will provide opportunities for personal development, fulfilment, and well-being. Employees are increasingly seeking to derive meaning, happiness, and social connections from their work, as well as opportunities for professional learning and personal growth (Avolio and Sosik 1999; Wrzesniewski et al. 1997). Hence, employers have benefitted from taking a proactive approach to occupational health by moving beyond traditional incentives to also supporting the psychological functioning and mental health of their employees, including both hedonic (e.g., affect, satisfaction) and eudaimonic (e.g., meaning, engagement) experiences (Page and Vella-Brodrick 2009). However, a greater understanding of factors that influence employee well-being may enable employers to intervene in a more effective, cost-efficient manner, and it may also enable employees to apply greater control over their work experiences to increase their well-being. In this study, we explore

the relationship between job crafting, perceived autonomy support, and workplace well-being in a sample of working adults.

The Value of Workplace Well-Being

Accumulating empirical evidence provides support for employee well-being as a valuable strategic objective in organizations. For example, a review by Spector (1997) found that employee engagement and employee citizenship behaviors are correlated; citizenship behaviors in turn predict both individual and organizational-level performance variables (Podsakoff et al. 2009). Employee engagement also correlates with employee punctuality and time efficiency, less absenteeism, and higher retention rates (Spector 1997). A meta-analysis of 7939 business units across 36 companies found significant associations between employee satisfaction and engagement and business-unit outcomes, including productivity and profit (Harter et al. 2002). More recently, Sears et al. (2013) examined the relationship between the physical and mental well-being of 11,700 employees and outcomes such as job performance ratings, presenteeism, and intention to stay, both cross-sectionally and prospectively over a year. Well-being significantly predicted all employee outcomes, even one year later. Moreover, increases in well-being correlated with positive changes in work related outcomes. Taken together, the body of literature shows a positive relationship between individual-level well-being variables and valued organizational outcomes in workplaces. As a consequence, fostering practices that enable workplace well-being is not only a valuable initiative for employees, but it may also enhance organizational level performance.

Individual Behavior and Employee Well-Being: The Role of Job Crafting

Given the importance of employee well-being for desirable work-related outcomes, it is not surprising that managers are becoming increasingly interested in ways to enhance the well-being of their employees. Self-Determination Theory (SDT; Deci and Ryan 2008; Ryan and Deci 2000), a general theory of human motivation, has generated substantial scholarly insight into how this might be achieved. SDT suggests that humans have three intrinsic psychological needs that, when satisfied, lead to optimal functioning, growth, environmental coherence, and well-being: autonomy, relatedness, and competence. Applied to the work context, autonomy refers to the feeling of being in control of one's work environment and feeling that one has a sense of volition and choice. Relatedness refers to the perception that one is able to form quality relationships at work. Competence refers to one's ability to experience a sense of efficacy or mastery at work. The three needs have been researched extensively, and substantial empirical evidence exists to support their importance for human flourishing (cf. Deci and Ryan 2000; Vansteenkiste and Ryan 2013).

Given the evidence supporting the importance of autonomy, relatedness, and competence for well-being, scholars have begun to explore ways in which these fundamental needs can be nurtured in various settings, including the workplace. Self-concordant goal setting (Sheldon and Elliot 1999) and strengths use (Linley et al. 2010) have been identified as helpful strategies. Another approach referred to as person-job fit involves increasing a sense of coherence between the individual and their job. Person-job fit requires an alignment between the knowledge, strengths, skills, needs, and preferences

of the individual and the demands and requirements of the job (Edwards 1991; Kristof-Brown et al. 2005). When this alignment is in place, individuals tend to be more engaged and satisfied (Warr and Inceoglu 2012), likely because they are sufficiently challenged without feeling overwhelmed. Job crafting (Wrzesniewski and Dutton 2001), which is defined as “the physical and cognitive changes individuals make to the task or relational boundaries of their work” (p. 179), is a method by which employees might create a better fit between themselves and the demands of their jobs. By engaging in job crafting, employees can essentially reshape their job such that it becomes more closely aligned with their motivations for work, as well as their individual skills and preferences. This process affects the nature of the job itself, including the demands experienced on the job as well as a personal sense of efficacy for meeting those demands. A growing body of research has found that job crafting enables individuals to strike an equilibrium between the demands of their jobs and the personal resources they have to manage them (e.g., Tims et al. 2012, 2013a, b), which helps buffer against stress and increases engagement.

Wrzesniewski and Dutton’s (2001) original theoretical position suggests that employees can initiate job crafting in three distinct ways. First, they can proactively modify the number, scope, or types of tasks they perform at work (task crafting). Second, they can change the quality and/or amount of interaction they have with others at work (relational crafting). Finally, they can change the way in which they think about or perceive their jobs (cognitive crafting). These three sub-dimensions of job crafting relate to the autonomy, relatedness, and competence needs espoused by SDT. Through job crafting, employees can tailor their existing jobs to more closely align with their needs, values, and skill sets, producing a more internalized motivation for their work and thus creating a more enjoyable, engaging, and meaningful experience on the job (Berg et al. 2010; Wrzesniewski 2003; Wrzesniewski and Dutton 2001). This theoretical model was supported recently by Slemp and Vella-Brodrick (2014) who, using structural equation modeling (SEM), found that job crafting predicted psychological need satisfaction at work, which in turn predicted well-being. These findings suggest that job crafting may provide employees with an important avenue for enhancing their workplace well-being through the satisfaction of psychological needs.

Contextual Factors and Employee Well-Being: The Role of Autonomy Support

In addition to individual factors, contextual factors also influence well-being and psychological needs (Freeney and Fellenz 2013). One such social-contextual factor that has significant implications for workplace well-being is autonomy support (Baard et al. 2004; Deci et al. 1989; Deci and Ryan 1987; Gagné 2003). Autonomy support refers to an interpersonal orientation of one’s manager or work supervisor that involves acknowledging and understanding employee perspectives, providing employees with opportunities for volition over what they do and how they go about it, encouraging employee initiative, and remaining open to new experiences (Baard et al. 2004; Moreau and Mageau 2012). Managers with autonomy supportive leadership styles welcome employee self-initiation and take steps to nurture the employee’s inner motivational resources. In contrast, those with more controlling leadership styles tend to pressure employees to feel, think, or behave in particular ways.

While environments supportive of autonomy tend to have positive outcomes for individuals, environments that are more controlling tend to have a negative effect on self-motivation, persistence, and well-being (Chirkov and Ryan 2001; Pelletier et al. 2001; Ryan and Deci 2000). In the work context, employees who have supervisors with an autonomy supportive style report higher levels of satisfaction at work and better psychological health (Gillet et al. 2013; Moreau and Mageau 2012), perform better (Baard et al. 2004), and are more open to and accepting of organizational change (Gagné et al. 2000) than those with supervisors with a controlling style. Other studies have shown that autonomy support predicts the satisfaction of workplace well-being through the satisfaction of intrinsic needs (Deci et al. 2001).

The Current Study

Both individual factors (such as job crafting) and contextual factors (such as autonomy support) are related to workplace well-being. Studies have found associations between job autonomy and job crafting in daily diary studies (e.g., Petrou et al. 2012) and qualitative research (e.g., Berg et al. 2010). Moreover, numerous studies illustrate how individual level variables and contextual variables in organizations interact to influence individual and organizational outcomes (cf. Hart and Cooper 2001; Johns 2006). This literature has shown that contextual factors can affect behavior directly or moderate the relationship between variables in the workplace. Autonomy support is a contextual variable in the workplace that has important implications for workplace behavior as it produces a climate where self-initiation, proactivity, and volition are encouraged. Such a climate is likely to foster human agency and more self-determined, discretionary behavior (Deci and Ryan 1985; Ryan and Deci 2000) and could therefore lead to increases in job crafting. Hence, an autonomy supportive work climate should provide the requisite conditions that enable more self-initiated, discretionary behaviors in organizations, such as job crafting. This could, in turn, improve employee well-being.

To our knowledge, this set of relationships has not been directly investigated. The aim of this study was to take the first steps to address this gap by empirically examining a theoretical model in which autonomy support predicts job crafting, which in turn predicts greater workplace well-being (see Fig. 1). As studies have shown that job crafting

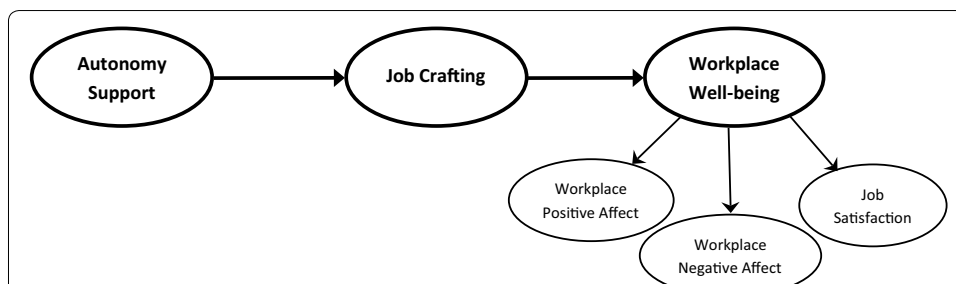


Fig. 1 Hypothesized model where autonomy support predicts job crafting, which in turn predicts workplace well-being. Job crafting is defined in terms of three sub-factors (task, relational, and cognitive). Workplace well-being is shown here as a higher order factor, comprised of positive affect, negative affect, and job satisfaction. In our empirical model, to identify the model, these were tested as three separate, correlated latent outcome variables

is related to well-being (e.g., Nielsen and Abildgaard 2012; Petrou et al. 2012; Slemp and Vella-Brodrick 2014), we hypothesized that job crafting is the mediating variable in the model, and that autonomy support is the antecedent, as it provides the conditions that allow employees to engage in job crafting activities. Well-being has been defined in numerous ways. One of the most common definitions of subjective well-being includes both cognitive (i.e., life satisfaction) and affective (high positive affect, low negative affect) components (Diener et al. 1999). Applying this definition to the workplace, we define workplace well-being in terms of workplace positive and negative affect, and job satisfaction.

Methods

Participants and Procedure

The current study analyzed existing data from a battery of questionnaires that was administered online to employees in Australia in 2011. Most participants were contacted through a representative at their workplace who made an announcement about an opportunity to participate in the research, and then employees opted into the study. Announcements about the study were made within a higher education institution, a banking and financial services organization, and a health insurance organization. Other participants were informed about the study through online social networking sites and discussion forums. Participants were directed to an explanatory statement which contained a link to the online battery of questionnaires. All procedures were approved by the Monash University Human Research Ethics Committee.

Of 334 employees who began the study, 250 (74.9 %) completed the scales for use in this study and were included in the analyses reported here. The majority of the participants were female (67.2 %) and were on average 41.90 years of age ($SD = 11.30$). Most of the participants were employed on a full-time basis (76.40 %) and on average participants worked 38.04 h a week ($SD = 12.11$), had completed 17.52 years of education ($SD = 3.56$), and earned \$75,764 Australian dollars per year ($SD = \$50,288$). The participants worked in education (68.0 %), banking and finance (6.5 %), healthcare (6.0 %), or other/unknown (19.50 %).

Measures

To test the hypothesized model, participants completed measures that addressed autonomy support, job crafting, positive and negative affect, and job satisfaction. Demographic information was also requested.

Autonomy Support

Autonomy support was measured with the 15-item Work Climate Questionnaire (WCQ; Baard et al. 2004). The scale was adapted to the workplace context from two other questionnaires: the Health Care Climate Questionnaire (HCCQ; Williams et al. 1996), which assesses the degree of perceived autonomy supportiveness felt towards one's health care provider, and the Learning Climate Questionnaire (LCQ; Williams and Deci 1996), which measures the degree to which medical students feel their instructor is autonomy supportive. The WCQ assesses the degree of perceived autonomy supportiveness felt towards one's workplace manager. A sample item is "My manager listens to

how I would like to do things". Responses are recorded on a 7-point scale (1 = strongly disagree, 7 = strongly agree). The scale showed high internal consistency in the current sample ($\alpha = 0.97$).

Job Crafting

Job crafting was measured with the 15-item Job Crafting Questionnaire (JCQ; Slemp and Vella-Brodrick 2013), which assesses the extent to which employees engage in various forms of task, relational, and cognitive crafting. Items represent different types of job crafting behaviors or cognitions, and respondents indicate the frequency with which they engage in each one (1 = hardly ever, 6 = very often). Sample items include: "Introduce new tasks you think better suit your skills or interests" (task crafting), "Think about how your job gives your life purpose" (cognitive crafting), and "Make an effort to get to know people well at work" (relational crafting). Slemp and Vella-Brodrick (2013) provided evidence of the factorial validity of the scale as well as evidence of convergent validity. For the current study, the overall scale and sub-factors showed high internal consistency (overall: $\alpha = 0.91$; task: 5 items, $\alpha = 0.86$; relational: 5 items, $\alpha = 0.84$; cognitive: 5 items, $\alpha = 0.90$).

Composite scores for each job crafting sub-factor were calculated as the mean of the relevant items, and were subsequently used as the three observed variables for the latent job crafting variable.

Workplace Well-Being

Workplace well-being (WWB) was measured using Warr's (1990) affective well-being scales to assess the affective components of WWB, and the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann et al. 1979) to measure the cognitive component of WWB. Warr's affective well-being scales contain 12 descriptor words that measure both positive affect (PA; 6 items) and negative affect (NA; 6 items) across a continuum of emotional arousal (e.g., "cheerful" and "contented" for high and low arousal PA, respectively; "worried" and "depressed" for high and low arousal NA, respectively). Participants indicate the frequency with which they experience each of the emotions at work on a 6-point scale (1 = never, 6 = all of the time). In the current sample, internal consistency was high (PA: 6 items, $\alpha = 0.94$; NA: 6 items, $\alpha = 0.92$).

The MOAQ uses three items to measure global job satisfaction. A sample item is "All in all, I am satisfied with my job". Participants indicate the extent to which they agree with each item on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Studies have supported the validity of the scale (e.g., Bowling and Hammond 2008). In the present study, internal consistency was high ($\alpha = 0.90$).

Data Analyses

Structural equation modeling (SEM) was used for the data analysis in this study, using the two-step approach recommended by Anderson and Gerbing (1988). First, to ensure that the observed variables were satisfactorily related to their respective latent variables for each scale, we tested the measurement models. Exploratory factor analyses (EFA) were used to reduce the overall number of items and establish an adequate measurement model, and then confirmatory factor analyses (CFAs) tested the final measurement

model for each latent variable (autonomy support, job crafting, and workplace well-being). Second, SEM tested the hypothesized structural model (Fig. 1). Analyses were performed using the lavaan package (Rosseel 2012) of the open source R software (version 3.1.2), with maximum likelihood estimation.

Six different fit indices were used to test the fit of the measurement and structural models: Chi square, the normed Chi square (χ^2/df), the comparative fit index (CFI; Bentler 1990), the non-normed fit index (NNFI; Tucker and Lewis 1973), the standardized root mean square residual (SRMR) and the root mean square error of approximation (RMSEA; Browne and Cudeck 1993). There are numerous recommendations and disagreements over appropriate cutoff criteria on these indices, but general rules of thumb suggest that relatively good fit is indicated by values exceeding 0.90 for the NNFI, values above or approaching 0.95 for the CFI, and values less than 0.08 for the SRMR and the RMSEA (Hu and Bentler 1999). As the Chi square statistic tends to be affected by sample size as well as the size of the correlations in the model, we included the normed Chi square index. There are numerous guidelines for this statistic; Bollen (1989) recommended values under three as indicative of good fit.

Results

Establishing the Measurement Models

Before testing the structural model, Anderson and Gerbing's (1988) two-step approach to SEM requires satisfactory measurement models. Beginning with autonomy support, confirmatory factor analysis (CFA) tested a single latent variable model with all 15 items as observed variables. On the whole, this model fit the data poorly [$\chi^2(90) = 513.82$, $p < 0.05$, $\chi^2/df = 5.71$, CFI = 0.904, NNFI = 0.888, SRMR = 0.034, RMSEA = 0.137 (90 % confidence interval 0.13–0.15)]. To improve the fit of the model and to shorten the length of the autonomy support scale, we randomly split the sample into a development and test set. With the development set ($n = 144$), EFA with principle components estimation identified the items with the highest factor loadings. The five highest loading items showed high internal consistency ($\alpha = 0.96$). We then confirmed the five item model with the test set ($n = 106$), which showed that model fit was much improved [$\chi^2(5) = 3.30$, $p > 0.05$, $\chi^2/df = 0.659$, CFI = 1.000, NNFI = 1.007, SRMR = 0.009, RMSEA = 0.000 (CI 0.00–0.11)]. Combining the development and test sets, the shortened scale adequately fit the data [$\chi^2(5) = 9.88$, $p > 0.05$, $\chi^2/df = 1.976$, CFI = 0.996, NNFI = 0.993, SRMR = 0.008, RMSEA = 0.062 (CI 0.00–0.12)] and showed high internal consistency ($\alpha = 0.96$).

Next, we tested job crafting, with the 15 items loading on three sub-factors (task crafting, relational crafting, and cognitive crafting), which in turn loaded on a higher order job crafting factor. The data adequately fit this model [$\chi^2(87) = 190.89$, $p < 0.05$, $\chi^2/df = 2.183$, CFI = 0.948, NNFI = 0.937, SRMR = 0.048, RMSEA = 0.069 (CI 0.06–0.08)], so no modifications were made.

For workplace well-being, we opted to reduce the number of items overall in order to balance the number of items for job satisfaction, positive affect, and negative affect. As job satisfaction consisted of three items, we examined whether affect could be similarly reduced to three-item scales for both PA and NA. In the development set ($n = 144$), EFA identified the top loading items for both PA and NA. We selected three items per

factor, ensuring there was a mix of high and low arousal emotions included. We then confirmed the well-being factors in a measurement model in the test set ($n = 106$), with three items each for job satisfaction, positive affect, and negative affect. This measurement model fit the data reasonably well [$\chi^2(24) = 47.48, p < 0.05, \chi^2/df = 1.978, CFI = 0.970, NNFI = 0.955, SRMR = 0.041, RMSEA = 0.096$ (CI 0.06–0.14)]. These shortened subscales also showed high internal consistency (PA: $\alpha = 0.89$; NA: $\alpha = 0.88$; JS: $\alpha = 0.92$). Combining the development and test samples, the shortened scales adequately fit the data [$\chi^2(24) = 56.89, p < 0.05, \chi^2/df = 2.370, CFI = 0.981, NNFI = 0.972, SRMR = 0.034, RMSEA = 0.074$ (CI 0.05–0.10)], with adequate internal consistency (PA: $\alpha = 0.89, NA: \alpha = 0.88; JS: \alpha = 0.90$).

Composite scores for autonomy support, job crafting (with task, relational, and cognitive sub-factors), and workplace well-being (with job satisfaction, positive affect, and negative affect sub-factors) were calculated. Variable descriptives and inter-correlations for the final reduced scales are presented in Table 1. All variables were strongly correlated, with the weakest associations between relational crafting and negative affect, as well as job satisfaction. As expected, all variables were positively correlated, except negative affect, which inversely related to the other variables.

In addition, we examined demographic variables (age, gender, years of education, and income) as possible covariates. Gender was correlated with relational crafting ($r = 0.24, p < 0.01$). Gender was thus added into the structural model, as an antecedent to relational crafting.

Testing the Hypothesized Structural Model

We next tested the full hypothesized structural model (Fig. 1). The model adequately fit the data [$\chi^2(128) = 283.54, p < 0.05, \chi^2/df = 2.215, CFI = 0.956, NNFI = 0.947, SRMR = 0.102, RMSEA = 0.070$ (CI 0.06–0.08)]. For comparison, we compared the hypothesized model with two competing models. First, it is possible that job crafting is the antecedent and autonomy support is the mediator, which would suggest that employees can craft their work experience in a way that allows them to obtain more autonomy from their direct supervisor or manager, which in turn leads to well-being. Hence, model 2 reversed the arrow, with job crafting predicting autonomy support, which in turn predicted workplace well-being. This model produced a slightly better fit to the data [$\chi^2(128) = 264.94, p < 0.05, \chi^2/df = 2.070, CFI = 0.961, NNFI = 0.953, SRMR = 0.074, RMSEA = 0.065$ (CI 0.05–0.08)]. It is also possible that job crafting and autonomy support are two independent but correlated predictors of workplace well-being, which would suggest that contextual and individual factors are two independent pathways toward workplace well-being. Model 3 tested this set of relationships. This last model best fit the data [$\chi^2(125) = 225.75, p < 0.05, \chi^2/df = 1.806, CFI = 0.971, NNFI = 0.965, SRMR = 0.046, RMSEA = 0.057$ (CI 0.05–0.07)] and is depicted in Fig. 2.

Supplementary Analysis

Although the best fitting model suggests that job crafting and autonomy support are both important factors predicting workplace well-being, it is also possible that there is a synergistic association, such that the highest levels of well-being occur when both job crafting and autonomy support are present. We explored this possibility in two ways.

Table 1 Variable descriptives and inter-correlations

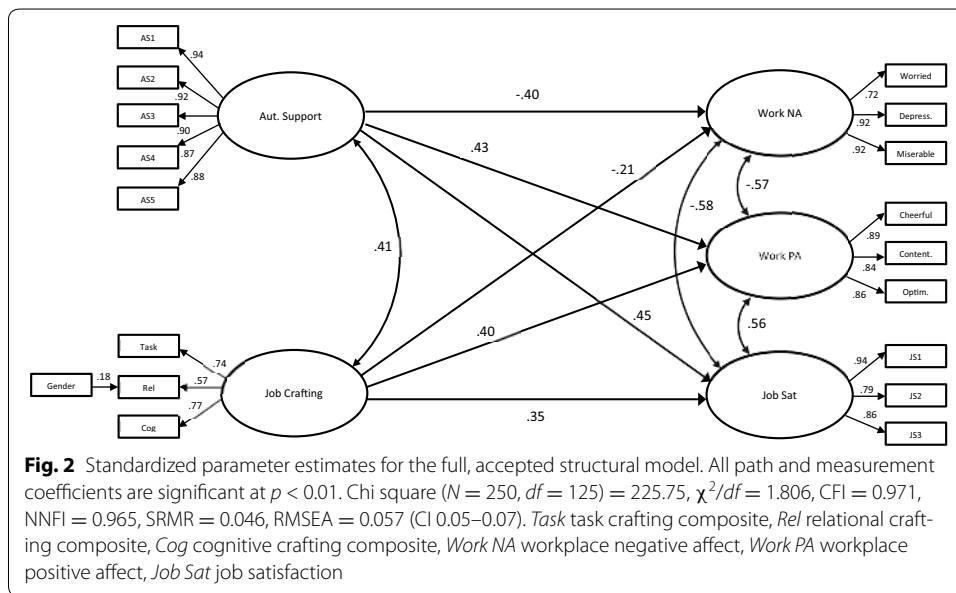
Variable	N	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9
1. Perceived autonomy support	250	4.54	1.85	1.00	7.00	–								
2. Task crafting	250	3.83	1.13	1.00	6.00	0.37**								
3. Relational crafting	250	3.69	1.13	1.00	6.00	0.20**	0.46**							
4. Cognitive crafting	250	3.68	1.21	1.00	6.00	0.29**	0.55**	0.47**						
5. Total job crafting ^a	250	3.73	0.94	1.00	5.80	0.35**	0.82**	0.79**	0.84**					
6. Positive affect	250	3.21	1.18	1.00	6.00	0.55**	0.43**	0.25**	0.44**	0.46**				
7. Negative affect	250	2.28	1.15	1.00	6.00	-0.47**	-0.29**	-0.15*	-0.28**	-0.30**	-0.66**			
8. Job satisfaction	250	4.89	1.59	1.00	7.00	0.54**	0.38**	0.19**	0.46**	0.42**	0.68**	-0.68**		
9. Workplace well-being ^{b,c}	250	4.28	1.16	1.11	6.33	0.59**	0.42**	0.21**	0.45**	0.45**	0.87**	-0.86**	0.91**	
10. Gender	247	–	–	–	–	0.05	0.11	0.24**	0.11	0.19**	0.04	-0.06	0.06	0.06

* $p < 0.05$, ** $p < 0.01$

^a Total Job Crafting is a composite of the Task Crafting, Relational Crafting, and Cognitive Crafting variables

^b Negative Affect items were reverse coded to create the Workplace Well-being composite

^c Workplace Well-being is a composite of the Positive Affect, Negative Affect, and Job Satisfaction variables



First, we estimated three linear regressions, predicting PA, NA, and job satisfaction from job crafting, autonomy support, and the interaction of the two. The interaction term was computed by multiplying the centered composite job crafting (JC) and autonomy support (AS) predictor variables (Aiken and West 1991). The interaction was significant for PA ($\beta = 0.118, p = 0.02$), and non-significant for NA ($\beta = 0.017, p = 0.77$) and job satisfaction ($\beta = 0.019, p = 0.71$). This finding suggests that employees who engaged in high levels of job crafting and who perceived their managers as high on autonomy support had the highest levels of positive affect, whereas employees who engaged in the lowest levels of job crafting and who perceived their managers as low on autonomy support had the lowest levels of positive affect.

Second, we constructed four comparison groups based upon tertile splits on the composite JC and AS variables: low AS-low JC ($n = 45$); high AS-low JC ($n = 13$); low AS-high JC ($n = 26$); high AS-high JC ($n = 44$), and mean levels of well-being for each group were compared using Tukey’s HSD (see Table 2). As illustrated in Fig. 3, results supported the regression analyses, with an interaction between job crafting and autonomy support for positive emotion, and a similar pattern for life satisfaction. Employees with high autonomy support and high job crafting had significantly higher levels of both positive affect and job satisfaction than employees low on either job crafting or autonomy support. The high AS-high JC group reported lower negative affect than the low AS-low JC group and the low AS-high JC group, but was not significantly different from the high AS-low JC group. Hence, autonomy support appeared to exhibit a stronger relationship with negative workplace emotions than did job crafting.

Discussion

The present study investigated associations between perceived autonomy support, job crafting, and workplace well-being. We hypothesized that perceived autonomy support would predict employee job crafting, which in turn would predict workplace well-being. Although this hypothesized model adequately fit the data, an alternative model in which

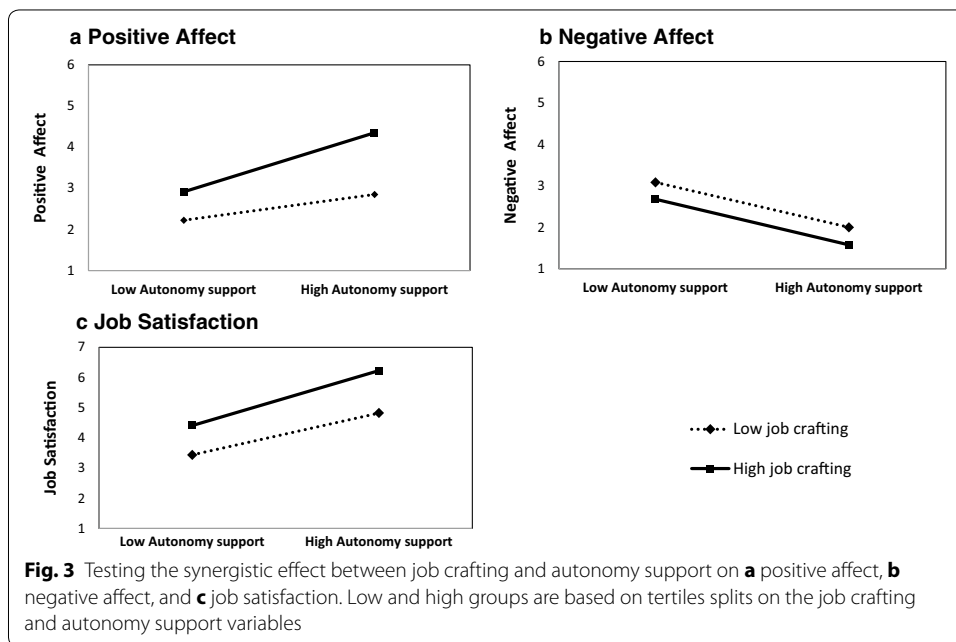
Table 2 Tukey’s HSD tests comparing combinations of low and high autonomy support and job crafting, for each workplace well-being outcome

Dependent variable	Group	N	M (SD)	Mean difference	Std. error
Workplace positive affect	High AS–High JC	44	4.35 (0.98)		
	Low AS–Low JC	45	2.22 (0.77)	2.13*	0.21
	High AS–Low JC	13	2.85 (1.09)	1.50*	0.31
	Low AS–High JC	26	2.91 (1.10)	1.43*	0.25
Workplace negative affect	High AS–High JC	44	1.57 (0.66)		
	Low AS–Low JC	45	3.08 (1.22)	−1.51*	0.22
	High AS–Low JC	13	2.00 (1.16)	−0.43	0.33
	Low AS–High JC	26	2.68 (1.10)	−1.10*	0.26
Job satisfaction	High AS–High JC	44	6.22 (0.74)		
	Low AS–Low JC	45	3.43 (1.52)	2.79*	0.29
	High AS–Low JC	13	4.82 (1.27)	1.40*	0.43
	Low AS–High JC	26	4.41 (1.61)	1.81*	0.33

Groups are based on tertile splits on the AS and JC variables. Mean difference values are compared to the High AS–High JC group

AS autonomy support, JC job crafting

* $p < 0.05$



autonomy support and job crafting were correlated independent predictors of well-being best fit the data. Supplemental analyses supported a synergistic relationship, in which the combination of job crafting and autonomy support was associated with the highest levels of workplace well-being. This finding points to a reciprocal process between job crafting and autonomy support, whereby employees can potentially craft their experience of work to obtain more autonomy support into their roles, and vice versa—autonomy support can provide greater scope for employees to engage in job crafting in

organizations. These findings support the idea that both individual and contextual factors matter for workplace well-being.

Findings from the current study are consistent with the notion that the workplace context is malleable, and can thus be changed through individual actions such as job crafting. Job crafting is about changing the experience of work in a bottom up fashion. It requires employees to initiate changes to the reality of one's job, which by implication will change the context in which the employee works. Task crafting in particular, which involves initiating changes to the various tasks one faces on the job, provides an important avenue through which employees can shape the contexts in which they work. Task crafting provides employees with potential opportunities to introduce new elements into their jobs, initiate changes to the design of their jobs or, indeed, initiate changes to the organizations for which they work (Wrzesniewski et al. 2013). All of these actions could produce changes in the context of the work itself, which may have reciprocal consequences for initiating further actions that involve job crafting. Such behaviors would also be consistent with previous qualitative data suggesting that employees can initiate responses to overcome perceived challenges to engaging in job crafting in organizations (Berg et al. 2010). A lack of autonomy support may be one such challenge to overcome when initiating job crafting.

Current findings also supported the idea that the context matters for individual behaviors. A growing body of literature finds that the work context, including tasks, social, and physical characteristics of organizations, can influence behavior directly or moderate relationships between variables in organizations (Johns 2006). Autonomy support from one's direct supervisor is a proximal social-contextual factor that is strongly predictive of behavior (cf. Gagné and Deci 2005), likely because perceived autonomy supportiveness has implications for the source of motivation people feel about their behavior. Autonomy supportive contexts facilitate autonomous motivation and the self-determination of behavior, whereas contexts that are more controlling tend to undermine this process. This finding extends well beyond organizational research and includes studies in medical settings (e.g., Williams et al. 1996, 2006; Williams and Deci 1996), sporting settings (e.g., Lim and Wang 2009; Hagger et al. 2003; Standage et al. 2006), and educational settings (e.g., Black and Deci 2000; Guay and Vallerand 1997; Ryan and Grolnick 1986). Within the workplace context, managers can provide opportunities that support job crafting and encourage employee attempts to engage in job crafting.

Consistent with studies finding that both autonomy support and job crafting are related to well-being (e.g., Deci et al. 2001; Gagné and Deci 2005; Moreau and Mageau 2012; Nielsen and Abildgaard 2012; Petrou et al. 2012; Slemp and Vella-Brodrick 2014; Tims et al. 2012, 2013a, b), the current study also found that both factors independently predicted workplace well-being. However, there was also some suggestion of a synergistic relationship between autonomy support and job crafting, such that employees with the greatest positive affect both perceived their managers as the most autonomy supportive, and engaged in the highest amounts of job crafting. While this finding potentially highlights the importance of both individual level factors as well as contextual factors in relation to workplace well-being, the cross sectional nature of the data limits the ability to establish the causal sequence underlying this relationship and future research with longitudinal and experimental data is needed.

It is also worth noting that females reported higher levels of relational crafting than did males. This finding is consistent with research showing that women tend to pursue more intimate patterns of sociality and belongingness than men do (e.g., Baumeister and Sommer 1997; Cross and Madson 1997). Such behavioral patterns might be more easily detected by the relational crafting items, which were generally focused on behavior consistent with the pursuit of closer connections with colleagues, making friends at work, and more intimate patterns of sociality.

Limitations

The present study should be interpreted in light of several limitations. First, although we tested different directional models, the data are cross-sectional and it is thus impossible to make inferences about causality. Future research might help to establish the causal direction of the associations more clearly through experiments and longitudinal studies. Second, the measures were self-reported, which provides limited information. Future work can be strengthened by moving beyond self-reports, including multiple perspectives and modes of assessment. Third, the validity of the measures needs to be better established. The JCQ is still in its early stages of development, and greater evidence of its reliability and validity are needed. For autonomy support and well-being, we created shortened versions of the measures. Future studies might consider further revising the scales used in this study.

Fourth, the sample was relatively homogenous in terms of its nationality, education, and income, and contained more females than males. The socioeconomic status of this sample is also slightly higher than is typical in most industrialized societies, which impedes the generalizability of the findings to more diverse groups, including blue-collar employees and those from different cultures. Fifth, although the sample size was sufficient for testing a structural model, it was still relatively small. Findings should be replicated in a larger sample. Although this study provides an initial empirical test of the combined association of contextual and individual factors on workplace well-being, numerous other more sophisticated models can be tested in the future.

Implications

Despite these limitations, the present study has several implications for organizations and scholars. The findings suggest that both autonomy support and job crafting explain unique variance in workplace well-being, and hence, organizations might benefit from targeting both employees and managers to improve employee engagement, satisfaction, and mental health. This might involve, for example, educating those in positions of management about adopting more autonomy supportive approaches when supervising their staff, as well as educating employees about ways to craft additional autonomy supportiveness into their roles. Managers could adopt a more strategic approach to building autonomy support into their management style, which may further enable job crafting in organizations. For example, management could incorporate discussions about job crafting into development planning meetings with their staff, allow employees to take more ownership of their roles, or perhaps provide training opportunities to teach employees about job crafting (Wrzesniewski 2014). This autonomy supportive approach may enable greater scope for personal growth and meaning, as it fosters autonomously motivated

behavior and greater internalization of work tasks. Through an autonomy supportive approach, managers can provide the context that supports employee job crafting, which in turn may help employees improve their workplace well-being.

At the same time, employees can initiate actions that will provide high levels of autonomy support. For example, employees might craft their jobs in a way that allows them to attain more workplace autonomy from their direct supervisor or manager. Employees might request a change in decision making authority (either to obtain more or less of it), employees might take opportunities to be more open and up-front with management, or employees might provide feedback to their manager in order to produce an intended change in how they are personally managed or supervised at work. These are examples of how an employee might attempt to influence the support style of supervisors to be more supportive of autonomy and workplace well-being.

The findings also point to the value of studying both individual workplace behaviors and the organizational context to better understand the conditions under which employees are likely to flourish. While the agentic nature of job crafting is promising because it emphasizes the employee's role in potentially enhancing their experience of work, ultimately employee agency is either supported or inhibited by various environmental and contextual forces within organizations (e.g., Crant 2000; Gagné and Deci 2005; Parker et al. 2006). It is fundamental to understand what these forces are and their relationship with individual behavior such as job crafting, as these insights will allow for more targeted and comprehensive interventions to improve employee well-being. The current study offers a contribution by directly linking job crafting with autonomy supportive work climates. Despite the study limitations, this finding offers a useful early step in determining the structural associations amongst the many multi-level factors that may influence workplace well-being. While our findings clearly suggest that both job crafting and autonomy support are key independent and complimentary predictors, future research might expand this model using larger samples and more sophisticated methods that allow for causal inferences. Future work might also explore other, more distal contextual factors (e.g., perceived organizational support) and hence shed further light on the conditions that may enable enhanced employee mental health.

Conclusion

The present study provides empirical support that both individual and contextual factors matter for workplace well-being. This finding underscores the importance of investigating the context as well as individual differences in behavior in relation to well-being, both of which may help scholars to explain more variance in employee well-being and also develop more effective strategies for improving employee mental health.

Authors' contributions

GRS developed the research questions/hypotheses (with DAVB), collected the data, conducted the data analyses (with MLK), and wrote the method, results, and discussion sections of the manuscript. MLK contributed in the analysis and interpretation of the data (with GRS), and reviewed, refined, and helped write all drafts of the manuscript. DAVB was involved in the development of the research questions/hypotheses (with GRS) and drafted an introduction section to the manuscript, as well as reviewed all full drafts. All authors read and approved the final manuscript.

Compliance with ethical guidelines

Competing interests

The authors declare that they have no competing interests.

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