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Proactively shaping your true self at work

A study examining the relationships between job crafting, age and well-being and the mediating role of authenticity.

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Abstract

This cross-sectional study examined whether job crafting may lead to occupational well-being through feelings of authenticity at work. In addition, the relationship between age and authenticity was examined. Data were collected among 436 candidates from a HR consultancy company that mainly operates within the life sciences branch. Results were analysed using a linear regression analysis and a Process mediation analysis. The findings indicated that crafting structural resources and crafting challenging demands are associated with increased employee well-being via increased authenticity, whereas crafting hindering demands is associated with reduced well-being via decreased authenticity. In addition, crafting social resources was not related to increased well-being through increased authenticity. Furthermore, a positive relationship between age and authenticity was demonstrated. This study is among the first to examine the role of authenticity in the relationship between job crafting and employee well-being. Implications for theory and practice are discussed.

Keywords: job crafting, age, authenticity, work engagement and emotional exhaustion

Introduction

A growing number of organisations are facing highly turbulent environments where technological change is rapid, timing is crucial and competitive pressures are ruthless and unpredictable (Cummings & Worley, 2015). These fast-paced developments cause uncertainty in organizations (Kooij, Tims, & Akkersmans, 2017) and compel organisations to change (Akkermans, Brenninkmeijer, Schaufeli, & Blonk, 2015). The role of employees is also subject to change, due to a decline in job security and the rise of flexible work. Whereas traditionally managers were responsible for creating a working environment in which employees would feel inventive, healthy and engaged (Vogt, Hakanen, Brauchli, Jenny, & Bauer, 2016), now employees have to take control over their own careers by engaging in proactive behaviours (Akkermans et al., 2015; Kooij et al., 2017). Proactive behaviours are the anticipatory actions employees take to change the way jobs, roles and tasks are performed (Grant & Parker, 2009). These actions enable employees to respond flexibly to changing demands and opportunities and to experience higher levels of well-being (Brenninkmeijer & Hekkert-Koning, 2015).

Job crafting is a form of a proactive behaviour, whereby individuals optimize job characteristics to align work with personal preferences and abilities (Tims & Bakker, 2010; Tims, Bakker, Derks, & Van Rhenen, 2013; Wrzesniewski & Dutton, 2001). By changing the characteristics of the job and the social work setting, job crafting allows employees to adjust the meaning of their work in a way that fits their own desires (Tims et al., 2013; Wrzesniewski & Dutton, 2001). According to Person-Environment (P-E) fit theory, incongruence between employees' desires and the characteristics of the work environment will cause strain and stress and eventually lower well-being (Caplan, 1983; Van Bosch & Taris, 2014). Well-being can also be influenced negatively by the discrepancy between feelings of the self and the actions that are performed (Metin, Taris, Peeters, & Van Beek,

2016). Following this reasoning, it may be possible that employees who feel authentic while working experience higher workplace well-being than non-authentic employees (Van den Bosch & Taris, 2014). Authenticity can be described as the ability of an individual to live in accordance with one's true self (Harter, 2002). In addition to job crafting, authentic feeling may be influenced by age. Scores of authenticity are higher for older individuals (Ito, Horikoshi, & Kodoma, 2009). This may be related to the assumption that older individuals perceive less risk in being authentic, due to the freedom that occurs with changing social roles (Franzese, 2007).

The purpose of the present study is twofold. First, we aim to examine whether job crafting may help individuals to develop feelings of authenticity at work, which eventually leads to work-related well-being. By addressing the mediating role of authenticity, this study may provide more insight into the psychological process underlying the positive effect of job crafting on employee well-being. For this reason, this study will contribute to the existing literature as we still do not know much about the underlying process relating job crafting to positive work outcomes (Demerouti, 2014). A second aim is to examine whether age, next to job crafting, influences authentic feeling. The insights of this study may benefit managers to encourage favourable job crafting behaviours and to grant the freedom to align job characteristics with personal preferences and abilities. These actions may lead to higher levels of authenticity and work engagement, which is beneficial for organizations as well as for individual employees. Engaged employees perform better (Salanova, Agut, & Peiró, 2005), feel more committed to the organization and experience higher levels of job satisfaction and well-being (Schaufeli, Taris, & Van Rhenen, 2008).

Job Crafting

The concept of job crafting was first presented by Wrzesniewski and Dutton (2001) and defined as “the physical and cognitive changes individuals make in the task or relational

boundaries in their work” (p. 179). Physical changes involve changing the number and types of tasks and activities. By contrast, changing cognitive boundaries involves the way employees mentally frame the significance of their work to create more meaning. Shifting relational boundaries refers to customizing how often and with whom employees decide to interact at the workplace (Wrzesniewski & Dutton, 2001). Crafting these dimensions takes place within the lines of defined jobs (Brenninkmeijer & Hekkert-Koning, 2015). In contrast to traditional top-down job redesign interventions, job crafting is a bottom-up approach, meaning that employees proactively shape their working conditions and do not passively react to their work environment (Tims, et al., 2013).

Recently, scholars have adopted the Job Demands-Resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) as a framework to determine which aspects of the job employees can craft (Tims, Derks, & Bakker, 2015). In this conceptualization, job crafting happens by increasing or reducing the level of job demands and job resources (Van den Heuvel, Demerouti, & Peeters, 2015; Tims & Bakker, 2010). Job demands are associated with physical or psychological costs because they are aspects of the job requiring sustained physical and/or psychological efforts. In contrast, job resources refer to aspects of the job that have function in achieving work goals, reduce job demands and stimulate personal growth, learning and development. The JD-R model assumes that job demands, for example a heavy workload, lead to depletion of energy by exhausting employees’ physical and mental resources. Hence, job demands are associated with negative work outcomes, such as burnout. By way of contrast, job resources, like autonomy, have motivational potential and are therefore related to positive work outcomes, such as work engagement (Bakker & Demerouti, 2007).

In line with the JD-R model, job crafting can be defined as “the changes that employees may make to balance their job demands and job resources with their personal

abilities and needs” (Tims, Bakker, & Derks, 2012, p. 174). This definition distinguishes between four types of job crafting. First, increasing structural job resources refer to increasing work resources such as skill variety, growth opportunities and autonomy. Second, increasing social job resources refer to increasing opportunities for social support, coaching and performance feedback. Third, increasing challenging job demands, point to increasing demands that promote learning, personal growth and development. Finally, decreasing hindering job demands involve reducing the level of job demands when employees feel they have become overpowering (Tims et al., 2012).

Job crafting and well-being

There is accumulating evidence that job crafting affects employee’s well-being, i.e. lower levels of burnout and higher levels of work engagement (Bakker, Tims, & Derks, 2012; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims, Bakker, & Derks, 2013; Vogt, et al., 2016). The concept of burnout consists of three elements: emotional exhaustion, cynicism and disengagement (Demerouti, Bakker, Vardakou, & Kantas, 2003). Emotional exhaustion can be understood as the core component of burnout and refers to work-related fatigue, resulting from prolonged exposure to job demands (Seidler et al., 2014). In contrast, work engagement is “a positive, fulfilling, work-related state of mind characterized by vigour, dedication and absorption” (Schaufeli, Salanova González-Romá, & Bakker, 2002, p.74). Vigour refers to high levels of energy and mental resilience while working, willingness to invest effort and persistence in achieving work goals. Dedication can be defined as being strongly involved in one’s work and experiencing meaningfulness, challenge and pride. Finally, absorption is characterized by being fully engaged in one’s work and losing track of time.

Tims and colleagues (2012) argued that especially the dimensions of increasing job resources and challenging demands will lead to work engagement. This is because job

resources and challenging demands meet basic psychological needs, such as the need for autonomy, competence and relatedness (Ryan & Deci, 2000). For example, people may increase their social resources by asking for advice and consequently receive social support, thereby satisfying their need for relatedness (Bakker, Rodríguez-Muñoz, & Vergel, 2016). Several studies have shown that crafting job resources indeed lead to higher levels of work engagement (Brenninkmeijer & Hekkert-Koning, 2015) and lower levels of burnout (Tims et al., 2013). The positive relationship between crafting challenging demands and well-being is also supported by research (Harju, Hakanen, & Schaufeli, 2016; Petrou et al., 2012; Tims et al., 2013). Challenging demands foster feelings of mastery and competence and thereby sustain psychological well-being (Harju et al., 2016). Based on this reasoning and the research findings presented above, the following hypotheses are formulated:

H1a. Crafting job resources and challenging demands are positively associated with work engagement.

H1b. Crafting job resources and challenging demands are negatively associated with emotional exhaustion.

In contrast, crafting hindering demands will not lead to work engagement (Brenninkmeijer & Hekkert-Koning, 2015; Petrou et al., 2012), but may be important for lowering emotional exhaustion (Tims et al., 2013). Initially, Tims and Bakker (2010) hypothesized that reducing hindering demands would be positively associated with work engagement, because the work environment would be better aligned to the needs and abilities of the employee. However, earlier studies found that reducing hindering demands is not (Tims et al., 2013) or even negatively related to work engagement (Brenninkmeijer & Hekkert-Koning, 2015; Petrou et al., 2012). For example, cross-sectional research showed that

reducing hindering demands is negatively associated with vigour, the energy component of work engagement (Tims et al., 2013). This indicates that reducing hindering demands requires energy and will therefore have a negative impact on work engagement (Kooij et al., 2017). In addition, by reducing the mental, emotional or physical workload, the optimal level of challenge may decrease, resulting in a less stimulating environment and consequently a lower level of work engagement (Petrou et al., 2012). As mentioned before, (hindering) job demands obstruct the fulfilment of personal goals and may therefore cause stress. Decreasing those demands does not necessarily mean that work engagement will rise; because no resources have been gained and no challenges have been created. However, it seems plausible that decreasing hindering demands will reduce emotional exhausting, since hindering demands cost effort and cause a health-impairment process (Bakker et al., 2016; Tims et al., 2013). Based on this reasoning and the research findings mentioned above, we propose:

H2a. Crafting hindering demands are negatively associated with work engagement.

H2b. Crafting hindering demands are negatively associated with emotional exhaustion.

Authenticity and well-being

Harter (2002) defined authenticity as the ability of an individual to live in accordance with one's true self. Authenticity is a tripartite construct consisting of authentic living, self-alienation and accepting external influences. Authentic living refers to the extent to which individuals live in accordance with their own values and beliefs and are true to their selves in most situations. A fit between one's conscious awareness and one's actual behaviour results in authentic living. Self-alienation is defined as the subjective experience of feeling out of touch with the actual self. When there is a misfit between conscious awareness and the actual physiological state, self-alienation will follow. Accepting external influences concerns the

extent to which individuals accept influences of others and live up to expectations (Barrett-Lennard, 1998; Van den Bosch & Taris, 2014; Wood, Linley, Maltby, Baliousis, & Joseph, 2008). When individuals are influenced, the experiences of authentic living as well as the subjective feeling of authenticity are affected. These dimensions are also influenced by the social environment (Schmid, 2005), meaning that changes in the environment should lead to corresponding changes in authentic living and subjective authenticity. In accordance with this assumption, authenticity is considered a state rather than a trait (Van den Bosch & Taris, 2014).

In general, employees who believe their job is consistent with their own values and beliefs report higher levels of work engagement (Van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012). As previously stated, engagement is a positive, affective-motivational mindset that arises when there is an excellent fit between personal and specific job characteristics. Since authenticity concerns the fit between a person and the environment, high levels of authenticity are presumably related to high levels of work engagement (Van den Bosch & Taris, 2014). Evidence showed that when individuals experience living in accordance with their true self, this is associated with higher levels of work engagement (Metin et al., 2016; Reis, Trullen, & Story, 2016) and lower levels of stress and negative affect (Van den Bosch & Taris, 2014). Based on this information, the following assumptions have been made:

H3a. Authenticity is positively related to work engagement.

H3b. Authenticity is negatively related to emotional exhaustion.

Job crafting and authenticity

Recently, Van den Bosch (2016) suggested that lack of authenticity might be a result of a poor person-job fit, which may be improved through job crafting. By changing certain job

characteristics, the level of experienced authenticity may increase by aligning work with personal preferences and abilities (Van den Bosch & Taris, 2014). For example, employees who feel unauthentic because they experience an overwhelming workload, might try to reduce these hindering demands in order to boost feelings of authenticity. However, employees who feel unauthentic because they are insufficiently challenged, might try to increase challenging demands to enhance authenticity. Similarly, employees who experience inauthenticity because they lack social support or autonomy, may seek to increase these job resources to restore feelings of authenticity. Due to the fact employees are strongly motivated to experience authenticity and to avoid feelings of inauthenticity (Van den Bosch, 2016), we expect employees will craft their jobs in order to achieve a better person-job fit and to experience higher levels of authenticity. Based on this reasoning and the research finding presented above, the following proposition is formulated:

H4. Job crafting is positively related to authenticity.

Mediation effects

In summary, a growing body of research shows that job crafting leads to occupational well-being (Bakker, et al., 2012; Petrou, et al., 2012; Tims, et al., 2013; Vogt, et al., 2016). In addition, it is known that feelings of authenticity influence occupational well-being (Metin et al., 2016; Reis, et al., 2016; Van den Bosch & Taris, 2014). Furthermore, it is expected that employees will craft their jobs to align them with personal preferences and abilities and will therefore experience feelings of authenticity (Van den Bosch & Taris, 2014). Following these research findings, it seems plausible that authenticity mediates the relationship between job crafting and well-being. Therefore, the following hypotheses will be examined:

H5a. Authenticity mediates the relationship between job crafting and work engagement.

H5b. Authenticity mediates the relationship between job crafting and emotional exhaustion.

Age and authenticity

In addition to job crafting, it seems plausible that feelings of authenticity are also affected by age. Franzese (2007) suggested that older individuals report higher levels of authenticity than younger individuals, since he believes older individuals have greater freedom to be authentic. This may be because older people perceive less risk in being authentic through the freedom that occurs with changing social roles. For example, when individuals grow older ties to social institutions become less strong. Another possibility is that personality becomes more stable when age increases (Roberts & DelVecchio, 2006), due to the fact that the self-image becomes clearer with age (Jurado & Roselli, 2007). Consequently, this may translate into more feelings of authenticity. Previous research supports this assumption and showed a negative association between age and inauthenticity at work (Erickson & Wharton, 1997). Similarly, research of Ito and colleagues (2009) showed that scores of authenticity are higher for older individuals. Based on this results and the reasoning presented above, the following hypothesis is formulated:

H6. Age is positively related to authenticity.

Research model

In the present study several hypotheses will be tested. Figure 1 provides an overview of the expected relationships among the study variables.

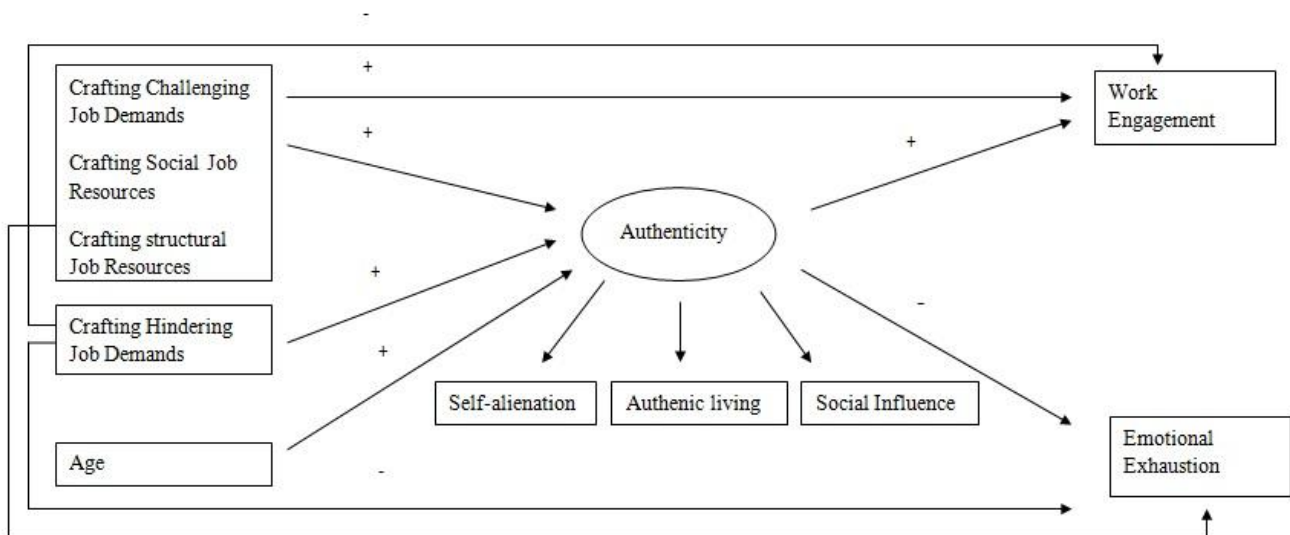


Figure 1. Proposed model of the relationships between job crafting, age, authenticity, engagement and exhaustion.

Method

Participants

The research population consisted of 436 individuals in the life sciences branch. A total of 182 women (42.1%) and 250 men (57.9%) completed the online survey. The majority of participants had higher vocational education (35.3%) or achieved a university degree (52.8%). Participants were 21 to 75 years old, with a mean age of 46.64 ($SD = 9.98$). Some participants were entrepreneur (15.4%) and many participants occupied a managerial position (43.3%). More descriptive are reported in Table 1.

Table 1

Branches, educational level and function group of the research participants (N = 434 for education level and branch, N = 435 for function group).

Category	Options	% of the participants
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JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

Branch	Food industry	9.7
	Pharmaceutical/biotechnology industry	33.6
	Health care	12.0
	Medical devices/laboratorial supplies	8.1
	Other	36.6
Educational level	MAVO, LBO, VMBO	1.6
	HAVO, MBO	9.2
	VWO	1.2
	Higher Vocational Education	35.3
	University Degree	52.8
Function Group	QA/ Regulatory Affairs	16.3
	Technical	5.3
	Sales/ Marketing	17.5
	Medical Expert	5.7
	IT	1.6
	HRM	3.7
	Purchase	2.8
	Finance	0.9
	Administrative	1.6
	Planning/ Logistics	2.8
	R&D	5.7
	QC/ Laboratories	3.0
	Management/ Board	16.3
Other	16.8	

Procedure

During a period of four weeks the data were collected among candidates from the organisation Derks & Derks B.V, which is a consultancy agency for Recruitment & Selection, Secondment & Interim and Assessment & Development. This company mainly operates within the branches medical devices, pharmacy, food and healthcare, and concentrates on higher educated individuals. Two weeks before starting data collection, participants were notified of the prospective study through an e-mail explaining the objective of the study and accentuating confidentiality and anonymity of the results. On March 7, an invitation to participate in the study was send by e-mail. This e-mail stressed the importance of the study and also contained the link to the online survey. The link was also distributed via other channels, such as LinkedIn. Two weeks after this invitation, a reminder was sent.

Measures

Job Crafting. Job crafting was assessed using the *Job Crafting Scale* developed by Tims et al. (2012). This questionnaire consists of 21 items and comprises four dimensions: hindering demands (six items, $\alpha = 0.74$, e.g. 'I try to ensure that I do not have to make many difficult decisions at work'), challenging demands (five items, $\alpha = 0.75$, e.g. 'I regularly take on extra tasks even though I do not receive extra salary for them'), social resources (five items, $\alpha = 0.79$, 'I ask my supervisor to coach me ') and structural resources (five items, $\alpha = 0.70$, 'I try to develop my capabilities') All items were rated on a 5-point Likert scale that ranged from 'never' (1) to 'often' (5). Contrary to expectation, principal component analysis (PCA) using direct oblimin rotation indicated that five factors had eigenvalues over Kaiser's criteria of 1 (explaining 56.57 percent of the variance). However, the scree plot showed that after factor number four, the decrease of eigenvalues abruptly levelled off. Therefore, another PCA was executed, extracting a fixed number of four factors (explaining 51.61 percent of the variance). Unfortunately, not all items had significant loadings on the intended dimensions

and therefore three items (item 1 and 7 of the dimension structural resources and item 5 of the dimension challenging demands) had to be removed. After removal of these items, the percentage of explained variance increased to 55.70. Reliability of the subscale challenging demands decreased ($\alpha = 0.74$), whereas reliability for structural resources increased ($\alpha = 0.79$). The factor loadings on the different job crafting dimensions are reported in Table 7.

Work Authenticity. This construct was measured with the *Individual Authenticity Measure at Work* (IAM Work, Van den Bosch & Taris, 2014), which is a 12-item adaption of *the authenticity scale* of Wood and colleagues (2008). The questionnaire encompasses three dimensions: authentic living (four items, $\alpha = 0.67$, e.g. 'I am true to myself at work in most situations'), self-alienation (four items, $\alpha = 0.92$, e.g. 'At work I feel alienated') and accepting external influence (four items, $\alpha = 0.68$, e.g. 'Other people influence me greatly at work'). Participants could respond to these statements on 7-point Likert-scale ranging from 0 ('strongly disagree') to 6 ('strongly agree'). Reliability analyses showed that the reliability of the authentic living subscale increased to $\alpha = 0.73$ after removing item 4 ('I find it easier to get on with people in the workplace when I'm being myself'). In addition, the reliability of the external influences scale increased to $\alpha = 0.71$ after removing item 2 ('At work, I behave in a manner that people expect me to behave'). Cronbach's alpha for the total authenticity scale (10 items) was 0.84. PCA using direct oblimin rotation confirmed the original three-factor structure of the IAM Work (explaining 69.53 percent of the variance).

Work Engagement. Work engagement was assessed with the short version of the *Utrecht Work Engagement Scale* (UWES; Schaufeli, Bakker, & Salonova, 2006). The scale measures absorption ($\alpha = 0.80$), vigour ($\alpha = 0.90$) and dedication ($\alpha = 0.92$) with three items for each dimension. Sample items are 'Time flies when I'm working' (absorption), 'At my work, I feel that I am bursting with energy' (vigour) and 'To me, my job is challenging'

(dedication). Items were scored on a scale that ranged from 0 ('never') to 6 ('always').

Cronbach's alpha for the total work engagement scale was 0.93.

Emotional Exhaustion. Finally, for assessing emotional exhaustion the *Utrechtse Burnout Scale* (UBOS) was used (Schaufeli & Van Dierendonk, 2000). The UBOS is the Dutch version of the *Maslach Burnout Inventory–General Survey* (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) and consists of 16 items distributed over three subscales (emotional exhaustion, cynicism, and professional efficacy). In the present study only the subscale emotional exhaustion was used, which consists of 5 items, including 'I feel tired when I get up in the morning and have to face another day on the job' and 'I feel burned out from my work.' Responses were made up using a 7-point Likert scale that ranged from 'never' (0) to 'always' (6). The Cronbach's alpha for this subscale was 0.93.

Statistical analysis

Data were analysed using SPSS versions 20.0. Prior to analyses, assumptions regarding outliers, homoscedasticity multicollinearity and linearity were checked. Then, descriptives and intercorrelations between the study variables were examined. For the relationships between age and authenticity and between age and well-being, a linear regression analysis using bootstrapping was performed. For testing mediation-effects, the PROCESS macro using bootstrapping was used (Hayes, 2013). In all analyses, bootstrapping means repeatedly generating 5000 samples (with replacement) from the original data set. The advantage of this method is no assumption of normality and more statistical power (Hayes, 2013). In Figure 2 the tested paths for mediation are displayed.

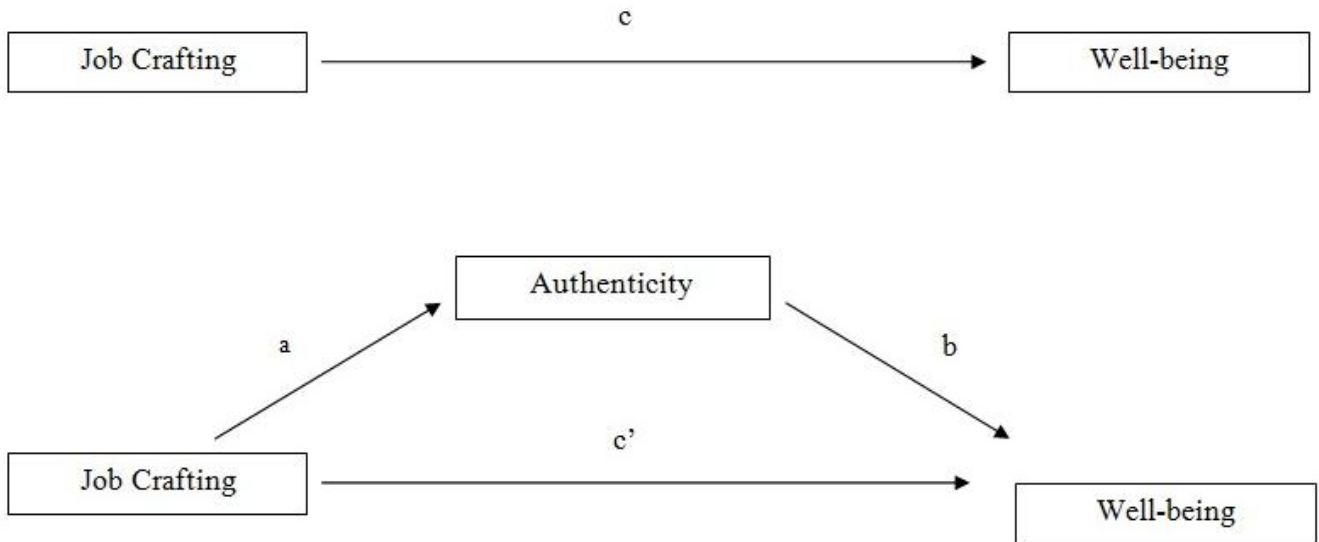


Figure 2. Basic model for mediation: total effect (c), indirect effect (ab) and direct effect (c').

Results

Descriptives

The descriptive results of the study variables are reported in Table 2. When looking at the means of the subscales, it is noteworthy that the mean of crafting social resources was relatively low compared to crafting challenging demands and crafting structural resources. Furthermore, it can be seen that not all correlations were in the expected direction. Crafting hindering demands correlated negatively with authenticity and positively with emotional exhaustion. In addition, crafting social resources did not correlate significantly with authenticity and emotional exhaustion. As can be seen in Table 2, the other correlations were in the expected direction.

Table 2

Means, Standard Deviations and correlations between the study variables (N = 436).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
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JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

1. Crafting hindering demands	1.88	0.55	-	.01	-.01	.07	-.15**	-.25**	-.15**	.26**
2. Crafting challenging demands	3.33	0.78		-	.55**	.40**	.05	.12*	.30**	-.11*
3. Crafting structural resources	3.85	0.73			-	.45**	-.02	.10*	.34**	-.17**
4. Crafting social resources	2.72	0.74				-	-.13**	.01	.27**	-.06
5. Age	46.64	9.98					-	.24**	.24**	-.26**
6. Authenticity	5.34	0.83						-	.50**	-.54**
7. Engagement	5.12	1.50							-	-.52**
8. Exhaustion	2.54	1.24								-

Note. * $p < .05$, ** $p < .01$

Job crafting and well-being

For examining the association between job crafting and well-being, the PROCESS macro developed by Hayes (2013) was used. In accordance with *H1a*, the results showed that crafting structural resources ($b = 0.54, p < .001$, see Table 3), crafting social resources ($b = 0.42, p < .001$, see Table 4) and crafting challenging demands ($b = 0.44, p < .001$, see Table 5) were positively related to work engagement. In addition, the results showed that crafting hindering demands was negatively associated with work engagement ($b = -0.31, p < .002$, see Table 6), which confirmed *H2a*. *H1b* received partial support, results showed that crafting structural resources ($b = -0.29, p < .001$, see Table 3) and crafting challenging demands ($b = -0.17, p < .028$, see Table 5) were negatively related to emotional exhaustion. However, crafting social resources ($b = -0.09, p < .248$, see Table 4) did not show a significant

relationship with emotional exhaustion. Therefore, it appeared that only crafting challenging demands and crafting structural resources were associated with decreased emotional exhaustion. Contrary to expectation, crafting hindering demands was positively associated with emotional exhaustion ($b = 0.57, p < .001$, see Table 6). Hence, $H2b$ was not supported.

Authenticity and well-being

Conform $H3a$, linear regression analysis using bootstrapping showed that authenticity was positively related to work engagement [$R^2 = 0.25, F(1, 434) = 142.44, \beta = .50, b = .68, p < .001$]. This suggested that when authenticity increases, the level of work engagement also increases. $H3b$ was supported as well, results showed that authenticity was negatively related to emotional exhaustion [$R^2 = 0.29, F(1, 434) = 177.86, \beta = -.54, b = -.79, p < .001$]. This indicated that when feelings of authenticity increase, levels of emotional exhaustion decrease.

Job crafting and authenticity

$H4$ predicted that job crafting is positively associated with authenticity. In line with this hypothesis, crafting structural resources ($b = 0.11, p < .040$) and crafting challenging demands ($b = 0.13, p < .011$) showed a positive relationship with authenticity. However, crafting social resources ($b = 0.01, p < .802$) did not show a significant relationship with authenticity. Contrary to expectation, crafting hindering demands ($b = -.39, p < .001$) was negatively related to authenticity. Following these results, only crafting structural resources and crafting challenging demands were associated with increased authenticity, whereas crafting hindering demands was associated with decreased authenticity.

Mediating role of authenticity

$H5a$ hypothesized that authenticity would mediate the relationship between job crafting and work engagement. The bootstrapping method (Hayes, 2013) showed that authenticity partially mediated the positive relationship between crafting structural resources and work engagement ($b = 0.07, p < .043$, see Table 3) and between crafting challenging

demands and work engagement ($b = 0.09, p < .012$, see Table 5). In addition, the results showed that authenticity fully mediated the negative relationship between crafting hindering demands and work engagement ($b = -0.26, p < .001$, see Table 6). Furthermore, authenticity did not mediate the relationship between crafting social resources and work engagement ($b = .01, p < .803$, see Table 4). *H5a* was therefore, with the exception of crafting social job resources, confirmed.

H5b stated that authenticity would mediate the relationship between job crafting and emotional exhaustion. This hypothesis was confirmed for crafting structural resources ($b = -0.09, p < .042$, see Table 3), crafting challenging demands ($b = -0.10, p < .012$, see Table 5) and crafting hindering demands ($b = 0.29, p < .001$, see Table 6), but not for crafting social resources ($b = -.01, p < .803$, see Table 4).

In short, the results showed that authenticity mediated the negative relationship between crafting structural resources and emotional exhaustion and between crafting challenging demands and emotional exhaustion. Authenticity also mediated the positive relationship between crafting structural resources and work engagement and between crafting challenging demands and work engagement. In addition, authenticity mediated the positive relationship between crafting hindering demands and emotional exhaustion and the negative relationship between crafting hindering demands and work engagement. Finally, authenticity did not mediate the relationship between crafting social resources and emotional exhaustion and between crafting social resources and work engagement.

Table 3

Mediation of authenticity in the relationship between crafting structural resources and work engagement and between crafting structural resources and emotional exhaustion.

<i>b</i>	<i>SE</i>	95 % CI
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JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

Crafting structural resources – authenticity (a)	0.11*	0.06	[0.026, 0.240]
Authenticity – work engagement (b)	0.64**	0.05	[0.516, 0.732]
Total effect (c)	0.54**	0.07	[0.399, 0.78]
Indirect effect (ab)	0.07*	0.04	[0.015, 0.161]
Direct effect (c')	0.46**	0.06	[0.332, 0.578]
Crafting structural resources – authenticity (a)	0.11*	0.06	[0.026, 0.240]
Authenticity – emotional exhaustion (b)	-0.77**	0.06	[-0.907, 0.672]
Total effect (c)	-0.29**	0.08	[-0.456, -0.141]
Indirect effect (ab)	-0.09*	0.05	[-0.201, -0.016]
Direct effect (c')	-0.20**	0.07	[-0.327, -0.059]

Note. $N = 436$. * $p < .05$ ** $p < .01$, R^2 Total (upper half of the table) = 0.334, R^2 Total (lower half of the table) = 0.305

Table 4

Mediation of authenticity in the relationship between crafting social resources and work engagement and between crafting social resources and emotional exhaustion.

	<i>b</i>	<i>SE</i>	95 % CI
Crafting social resources – authenticity (a)	0.01	0.06	[-0.096, 0.118]
Authenticity – work engagement (b)	0.68**	0.06	[0.559, 0.776]
Total effect (c)	0.42**	0.07	[0.275, 0.559]
Indirect effect (ab)	0.01	0.04	[-0.070, 0.084]
Direct effect (c')	0.41**	0.06	[0.287, 0.533]
Crafting social resources – authenticity (a)	0.01	0.06	[-0.096, 0.118]
Authenticity – emotional exhaustion (b)	-0.79**	0.06	[-0.926, -0.691]
Total effect (c)	-0.09	0.08	[-0.256, 0.071]

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Indirect effect (ab)	-0.01	0.05	[-0.103, 0.083]
Direct effect (c')	-0.08	0.07	[-0.212, 0.055]

Note. $N = 436$. * $p < .05$ ** $p < .01$, R^2 Total (upper half of the table) = 0.318, R^2 Total (lower half of the table) = 0.293

Table 5

Mediation of authenticity in the relationship between crafting challenging demands and work engagement and between crafting challenging demands and emotional exhaustion.

	<i>b</i>	<i>SE</i>	95 % CI
Crafting challenging demands – authenticity (a)	0.13*	0.05	[0.044, 0.244]
Authenticity – work engagement (b)	0.64**	0.06	[0.517, 0.739]
Total effect (c)	0.44**	0.07	[0.300, 0.566]
Indirect effect (ab)	0.09*	0.04	[0.025, 0.165]
Direct effect (c')	0.35**	0.06	[0.224, 0.461]
Crafting challenging demands – authenticity (a)	0.13*	0.05	[0.044, 0.244]
Authenticity – emotional exhaustion (b)	-0.78**	0.06	[-0.921, -0.684]
Total effect (c)	-0.17*	0.08	[-0.314, -0.016]
Indirect effect (ab)	-0.10**	0.05	[-0.210, -0.027]
Direct effect (c')	-0.06	0.07	[-0.177, -0.078]

Note. $N = 436$. * $p < .05$ ** $p < .01$, R^2 Total (upper half of the table) = 0.304, R^2 Total (lower half of the table) = 0.292

Table 6

Mediation of authenticity in the relationship between crafting hindering demands and work engagement and between crafting hindering demands and emotional exhaustion.

	<i>b</i>	<i>SE</i>	95 % CI
Crafting hindering demands – authenticity (a)	-0.39**	0.07	[-0.561, 0.289]
Authenticity – work engagement (b)	0.67**	0.06	[0.544, 0.781]
Total effect (c)	-0.31**	0.10	[-0.520, -0.133]
Indirect effect (ab)	-0.26**	0.06	[-0.404, -0.178]
Direct effect (c')	-0.05	0.09	[-0.224, 0.133]
Crafting hindering demands – authenticity (a)	-0.39**	0.07	[-0.561, -0.289]
Authenticity – emotional exhaustion (b)	-0.74**	0.06	[-0.884, 0.641]
Total effect (c)	0.57**	0.10	[0.367, 0.775]
Indirect effect (ab)	0.29**	0.07	[0.208, 0.457]
Direct effect (c')	0.28**	0.09	[0.064, 0.430]

Note. $N = 436$. * $p < .05$ ** $p < .01$, R^2 Total (upper half of the table) = 0.249, R^2 Total (lower half of the table) = 0.306

Age and authenticity

Finally, to examine whether age is positively related to authenticity, a linear regression analysis using bootstrapping was performed. In accordance with the expectation, the results showed that age was positively related to authenticity [$R^2 = 0.54$, $F(1, 434) = 24.69$, $\beta = 0.23$, $b = .02$, $p < .001$]. This indicates that when age increases, feelings of authenticity also increase.

Discussion

The central aims of the present study were to examine whether job crafting is related to authenticity and, in turn, whether authenticity is related to workplace well-being. By addressing the mediating role of authenticity, this study is among the first to provide more insight into the psychological process underlying the positive effect of job crafting on

employee well-being. Furthermore, the relationship between age and authenticity was examined. These associations were tested in sample of 436 candidates from a HR consultancy company for recruitment, selection and assessment that mainly operates within the life sciences branch.

Job crafting and well-being

Conform the expectation, crafting job resources and challenging demands were positively associated with work engagement. This implies that it is relevant for employee's to craft job resources and challenging demands in order to increase levels of work engagement. An explanation for this positive association is that by crafting job resources and challenging demands, basic psychological desires, such as the need for autonomy, competence and relatedness, are fulfilled (Ryan & Deci, 2000; Tims et al., 2012). Furthermore, it was expected that crafting hindering demands would be negatively associated with work engagement. The results confirmed this expectation, indicating that crafting hindering demands has a negative association with the level of work engagement. This is in line with the finding that decreasing hindering demands is negatively related to vigour, which indicates that reducing hindering demands requires energy and will therefore have a negative impact on the level of work engagement (Kooij et al., 2017; Tims et al., 2013). In addition, it has been found that reducing hindering demands lowers the optimal level of challenge, resulting in a less stimulating environment and consequently a lower level of work engagement (Petrou et al., 2012).

It was also predicted that crafting job resources and challenging demands would be negatively related to emotional exhaustion. The results supported this expectation for crafting structural resources and crafting challenging demands. This finding is in agreement with research of Tims and colleagues (2013), who found that crafting job resources and crafting challenging demands is associated with lower levels of burnout. However, there was no relationship between crafting social resources and emotional exhaustion. This might be

explained by the fact that social resources, among other things, refer to opportunities for feedback on performance. In the literature, there are mixed findings concerning the role of performance feedback, since it may act as a ‘two-edged sword’ (Bakker et al., 2016). On the one hand, feedback has been recognized as a core facet for stimulating motivation and learning in organizations. On the other hand, performance feedback can trigger burnout when the evaluation is negative (Bakker et al., 2016). It is possible that in the present the positive and negative effect of feedback eliminated each other. Contrary to expectation, crafting hindering demands was positively related to emotional exhaustion. As reducing hindering demands is negatively related to vigour, the energy component of work engagement, reducing hindering demands requires energy (Kooij et al., 2017) and may therefore increase instead of decrease emotional exhaustion.

Authenticity and well-being

In line with the prediction, authenticity was positively related to work engagement and negatively associated with emotional exhaustion. These findings are in accordance with previous studies (Metin et al., 2016; Reis et al., 2016; Van den Bosch & Taris, 2014) and imply that the experience of one’s true self is a relevant factor of work-related well-being. This seems plausible considering the three dimensions that constitute authenticity. When living in accordance with one’s own values, it seems likely that well-being will increase, whereas it seems probable that well-being will decrease when an individual feels out of touch with the actual self and accepts a lot of external influences.

Job crafting and authenticity

It was anticipated that job crafting would be positively related to authenticity. The results confirmed these predictions for crafting structural resources and crafting challenging demands, but not for crafting social resources and crafting hindering demands. Crafting social resources was unrelated to authenticity. Hence, no association between crafting social

resources and authenticity has been found. This might be explained by the role of personality. Some people may ask others for help and are therefore better able to achieve a fit between personal and job characteristics, making them feel more authentic. However, others feel that asking for help creates pressure to adjust to the advice of other people. Therefore, they are unable to perform their work in a way they want to and may feel less authentic. Possibly, the negative and positive consequences about asking for help eliminated each other in the present study.

Unlike expected, crafting hindering demands was negatively associated with authenticity. This might be explained by the reasoning that crafting hindering demands lowers opportunities for personal growth and development that could result from the mastery of these demands (Brennkmeijer & Hekkert-Koning, 2015). In addition, reducing hindering demands is acknowledging that one is not able to meet the requirements of the jobs. These realizations may trigger negative emotions, which could result in the experience of a poor person-job fit and consequently a lower level of authenticity. Crafting hindering demands is therefore associated with decreased authenticity.

Mediating role of authenticity

Predicted was that authenticity would mediate the relationship between job crafting and work engagement and between job crafting and emotional exhaustion. This expectation was confirmed for crafting structural resources, crafting challenging demands and crafting hindering demands. This means that crafting structural resources and crafting challenging demands were associated with increased work engagement and decreased emotional exhaustion via increased authenticity at work. On the contrary, crafting hindering demands was associated with decreased work engagement and increased emotional exhaustion via reduced feelings of authenticity. For crafting social resources the expectation was not supported. Authenticity did not mediate the relationship between crafting social resources and

work engagement and between crafting social resources and emotional exhaustion. It appeared that the relationship between crafting social resources and authenticity (path a in the mediation-model) did not reach significance, which is a prerequisite for mediation.

Age and authenticity

Finally, it was expected that age was positively related to authenticity. The results supported this assumption and are therefore in line with previous research (Ito et al., 2009; Erickson & Wharton, 1997). Older individuals might have a more stable personality (Roberts & DelVecchio, 2006), due to the fact that the self-image becomes clearer with age (Jurado & Roselli, 2007). This clearer self-image may translate into more feelings of authenticity. Alternatively, older individuals might experience more freedom to act in accordance with their true self. This greater freedom might have to do with perceiving less risk in being authentic because of the freedom that occurs with changing social roles (Franzese, 2007).

Study limitations

The present study has several limitations. First, due to the cross-sectional nature of this study cause-and-effect inferences cannot be made. For all the relationships found, reverse causality is possible (Brennkmeier & Hekkert-Koning, 2015; Metin et al., 2016). For example, it is also conceivable that employees, who feel less authentic, participate more in crafting hindering demands in an attempt to restore feelings of authenticity. Therefore, the associations among the study variables need to be further validated by longitudinal research to give a better indication of the direction of the relationships. It is also interesting to conduct an experiment to make more causal attributions (Shadish, Cook, & Campbell, 2002). For example, future research could compare an experimental group who gets a training job crafting to a control group who do not get the training. Despite this limitation, this study gives more clarity about the psychological process underlying the positive effect of job crafting on employee well-being.

Second, the majority of the participants were highly educated and many participants hold a managerial position, which may endanger the generalizability of the results. Wrzesniewski and Dutton (2001) suggest that higher educated individuals are more inclined to craft their jobs, because they are more likely to have higher position at work. For this reason, it might be interesting for future research to incorporate lower educated individuals into the research sample.

A final limitation relates to the fact that this study made use of self-reported data, which may have led to common-method variance (Podsakoff, MacKenzie, Lee, & Podsakoff (2003). However, the concepts measured in this study (like authenticity and work engagement) are notoriously difficult to detect objectively and therefore the use of self-reported data was an appropriate choice (Metin et al., 2016). In addition, the consequences of common-method variance are frequently overestimated (Spector, 2006). Still, the results must be interpreted carefully and future research could benefit from the integration of more objective measurements methods. For instance, to measure emotional exhaustion company records of absenteeism can be consulted.

An interesting suggestion for future research is to examine whether the relationship between job crafting and well-being is, next to authenticity, also mediated by P-E fit. Research of Van den Bosch (2016) showed that authenticity mediated the relationship between P-E fit and well-being, so it is plausible that job crafting is associated with increased authenticity through a better P-E fit.

Study Implications

This study adds to the existing literature on job crafting by identifying authenticity as one of the psychological processes underlying the positive effect of job crafting on occupational well-being. The results showed that authenticity mediated the relationship between job crafting and well-being. In addition, the finding that crafting social resources is

unrelated to authenticity and emotional exhaustion may contribute to theorizing about the role of crafting social resources (specifically performance feedback) as a potential ‘two-edged sword’. Furthermore, the finding that crafting hindering demands is positively related to emotion exhaustion may help clarify the role of this specific form of job crafting for employee well-being.

From a practical point of view, this study has also some important implications. The results suggest that it is essential for managers to provide opportunities and to encourage employees to craft their structural resources and challenging demands, in order to increase feelings of authenticity and consequently occupational well-being. However, it seems that crafting hindering demands should not be encouraged, because of the potential negative effects on authenticity and well-being (see also Brenninkmeijer & Hekkert-Koning, 2015; Petrou et al., 2012; Tims et al., 2013). With the encouragement of crafting social resources our results suggest that one must be careful, because crafting social resources may have both a positive and a negative effect on the level of authenticity and well-being of employees.

Conclusion

The present study has provided more insight into the relationships between job crafting, age, authenticity, work engagement and emotional exhaustion. The results imply that crafting structural resources and challenging demands may be successful in increasing authenticity and well-being, whereas crafting hindering demands does not appear to have these positive outcomes. In addition, crafting social resources may both have a positive and negative influence. These insights show again the importance of job crafting on favourable work outcomes and show the importance of job crafting on the experience of one’s true self. This may stimulate managers to encourage constructive forms of job crafting and may stimulate employees to proactively participate in beneficial job crafting behaviours. In short,

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in order to boost work engagement, employees should proactively shape their true self at work!

References

- Akkermans, J., Brenninkmeijer, V., Schaufeli, W. B., & Blonk, R. W. B. (2015). It's all about careerSKILLS: Effectiveness of a career development intervention for young employees. *Human Resource Management, 54*, 533– 551. doi:10.1002/hrm.21633
- Bakker, A. B. & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology, 22*, 309-328. doi:10.1108/02683940710733115
- Bakker, A. B., Tims, M., & Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations, 65*, 1359–1378. doi:10.1177/0018726712453471
- Bakker, A. B., Rodríguez-Muñoz, A., & Sanz Vergel, A. I. (2016). Modelling job crafting behaviours: Implications for work engagement. *Human Relations, 69*, 169-189. doi:10.1177/0018726715581690
- Barrett-Lennard, G. T. (1998). *Carl Rogers' helping system: Journey & substance*. London, UK: Sage Publications.
- Brenninkmeijer, V., & Hekkert-Koning, M. (2015). To craft or not to craft: the relationships between regulatory focus, job crafting and work outcomes. *Career Development International, 20*, 147-162. doi:10.1108/CDI-12-2014-0162
- Caplan, R. D. (1983). Person-environment fit: Past, present and future. In C. L. Cooper (Ed.), *Stress research* (pp. 35–78). New York, NY: Wiley.
- Cummings, T., & Worley, C. (2015). *Organization development and change*. Stamford, CT: Cengage Learning.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology, 86*, 499-512. Doi:10.1037//0021-9010.86.3.499

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

- Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment, 19*, 12-23. doi:10.1037/0021-9010.19.1.12
- Demerouti, E. (2014). Design your own job through job crafting. *European Psychologist, 19*, 237-247. doi:10.1027/1016-9040/a00018
- Erickson, R., & Wharton, A. S. (1997). Inauthenticity and Depression: Assessing the Consequences of Interactive Service Work. *Work and Occupations, 24*, 188-211. doi:10.1177/0730888497024002004
- Franzese, A. T. (2007). *To thine own self be true? An exploration of authenticity* (Doctoral dissertation). Retrieved from https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/431/D_Franzese_Alexis?sequence=1
- Grant, A. M., & Parker, S. K. (2009). Redesigning work design theories: The rise of relational and proactive perspectives. *Academy of Management Annals, 3*, 273–331. doi:10.1080/19416520903047327
- Harju, L. K., Hakanen, J. J., & Schaufeli, W. B. (2016). Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. *Journal of Vocational Behavior, 95-96*, 11-20. doi:10.1016/j.jvb.2016.07.001
- Harter, S. (2002). Authenticity. In C. R. Snyder, & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 382-394). Oxford, UK: Oxford University Press.
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York, NY: The Guilford Press.
- Ito, M., Horikoshi, M., & Kodama, M. (2009). A cross-sectional survey of age and sense of authenticity among Japanese. *Psychological reports, 105*, 575-581. doi:10.2466/PRO.105.2.575-581

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

- Jurado, M. B., & Rosselli, M. (2007). The elusive nature of executive functions: a review of our current understanding. *Neuropsychology review, 17*, 213-233.
doi:10.1007/s11065-007-9040-z
- Kooij, D. T. A. M., Tims, M., & Akkermans, J. (2017). The influence of future time perspective on work engagement and job performance: the role of job crafting. *European Journal of Work and Organizational Psychology, 26*, 4-15.
doi:10.1080/1359432X.2016.1209489
- Metin, U. B., Taris, T. W., Peeters, M. C., van Beek, I., & Van den Bosch, R. (2016). Authenticity at work—a job-demands resources perspective. *Journal of Managerial Psychology, 31*, 483-499. doi:10.1108/JMP-03-2014-008
- Petrou, P., Demerouti, E., Peeters, M. C. W., Schaufeli, W. B., & Hetland, J. (2012). Crafting a job on a daily basis: Contextual correlates and the link to work engagement. *Journal of Organizational Behavior, 33*, 1120– 1141. doi:10.1002/job.1783
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology, 88*, 879-903. doi:10.1037/0021-9010.88.5.879
- Reis, G., Trullen, J., & Story, J. (2016). Perceived organizational culture and engagement: the mediating role of authenticity. *Journal of Managerial Psychology, 23*, 379-407.
doi:10.1108/JMP-05-2015-0178
- Roberts, B. W., & DelVecchio, W. F. (2006). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin, 126*, 3-25. doi:10.1037/0033-2909.126.1.3

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.

doi:10.1037/0003-066X.55.1.68

Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of applied Psychology, 90*, 1217-1227.

doi:10.1037/0021-9010.90.6.1217

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). Maslach Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory—Test manual* (3th ed., pp. 22-26). Palo Alto, CA: Consulting Psychologists Press.

Schaufeli, W. B., & Van Dierendonck, D. (2000). *Handleiding Utrechtse burnout schaal*. Lisse, NL: Swets Test Publishers.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire a cross-national study. *Educational and Psychological Measurement, 66*, 701-716. doi:10.1177/0013164405282471

Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and work engagement: three of a kind or three different kinds of employee well-being? *Applied Psychology: an international Review, 57*, 173-203.

doi:10.1111/j.1464-0597.2007.00285.x

Schmid, P. F. (2005). Authenticity and alienation: Towards an understanding of the person beyond the categories of order and disorder. In S. Joseph, & R. Worsley (Eds.), *Person-centred psychopathology* (pp. 75–90). Ross-on-Wye, UK: PCCS Books.

Seidler, A., Thinschmidt, M., Deckert, S., Then, F., Hegewald, J., Nieuwenhuijsen, K., & Riedel-Heller, S. G. (2014). The role of psychosocial working conditions on burnout

- and its core component emotional exhaustion—a systematic review. *Journal of Occupational Medicine and Toxicology*, 9, 1-13. doi:10.1186/1745-6673-9-10
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton-Mifflin.
- Spector, P. E. (2006). Method variance in organizational research: truth or urban legend? *Organizational Research Methods*, 9, 221-232. doi:10.1177/1094428105284955
- Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *South African Journal of Industrial Psychology*, 36, 1-9.
doi:10.4102/sajip.v36i2.841
- Tims, M., Bakker, A.B. and Derks, D. (2012). Development and validation of the job crafting scale, *Journal of Vocational Behavior*, 80, pp. 173-186.
doi: 10.1016/j.jvb.2011.05.009
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being, *Journal of Occupational Health Psychology*, 18, 230-240. doi:10.1037/a0032141
- Tims, M., Bakker, A. B., Derks, D., & Van Rhenen, W. (2013). Job Crafting at the Team and Individual Level: Implications for Work Engagement and Performance. *Group & Organization Management*, 38, 427-454. doi:10.1177/1059601113492421
- Van Beek, I., Hu, Q., Schaufeli, W. B., Taris, T. W., & Schreurs, B. H. J. (2012). For fun, love, or money: what drives workaholic, engaged, and burned-out employees at work? *Applied Psychology: An International Journal*, 6, 30-55.
doi:10.1111/j.14640597.2011.00454.x

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

- Van den Bosch, R., & Taris, T. W. (2014). Authenticity at work: Development and validation of an individual authenticity measure at work. *Journal of Happiness Studies*, *15*, 1-18. doi:10.1007/s10902-013-9413-3
- Van den Bosch, R., & Taris, T. W. (2014) The Authentic Worker's Well-Being and Performance: The Relationship Between Authenticity at Work, Well-Being, and Work Outcomes. *The Journal of Psychology*, *148*, 659-681.
doi:10.1080/00223980.2013.820684
- Van den Bosch, R. (2016). *Authenticity at work*. (Unpublished doctoral dissertation). Retrieved from file:///C:/Users/Gebruiker/Downloads/vandenBosch%20(1).pdf
- Van den Heuvel, M., Demerouti, E., & Peeters, M. C. W. (2015). The job crafting intervention: Effects on job resources, self-efficacy, and affective well-being. *The British Psychological Society*, *88*, 511-532. doi:10.1111/joop.12128
- Vogt, K., Hakanen, J. J., Brauchli, R., Jenny, G. J., & Bauer, G. F. (2016). The consequences of job crafting: A Three-wave study. *European Journal of Work and Organizational Psychology*, *25*, 353-362. doi:10.1080/1359432X.2015.1072170
- Wood, A. M., Linley, A. P., Maltby, J., Baliouisis, M. and Joseph, S. (2008). The authentic personality: a theoretical and empirical conceptualization and the development of the authenticity scale, *Journal of Counseling Psychology*, *55*, 385-399.
doi:10.1037/0022-0167.55.3.385
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, *26*, 179-201.
doi:10.5465/AMR.2001.4378011

Appendix

Table 7

Factor loadings of the Job Crafting scale (Tims et al., 2010).

Item	Factor			
	1	2	3	4
<i>Increasing structural job resources</i>				
1. I make sure that I use my capacities to the fullest ^a				
7. I decide on my own how I do things ^a				
4. I try to develop myself professionally				-0.82
9. I try to learn new things at work				-0.70
13. I try to develop my capabilities				-0.79
<i>Increasing social job resources</i>				
3. I ask colleagues for advice			-0.51	-0.42
6. I ask whether my supervisor is satisfied with my work			-0.80	
10. I ask others for feedback on my job performance			-0.71	
12. I look to my supervisor for inspiration			-0.69	
17. I ask my supervisor to coach me			-0.81	
<i>Decreasing hindering job demands</i>				
18. I make sure that my work is mentally less intense		0.74		
11. I try to ensure that my work is emotionally less intense		0.79		
2. I manage my work so that I try to minimize contact with people whose problems affect me emotional		0.67		
15. I organize my work so as to minimize contact with people whose expectations are unrealistic		0.65		
8. I try to ensure that I do not have to make many difficult		0.57		

decisions at work

21. I organize my work in such a way to make sure that I do 0.53

not have to concentrate for too long a period at once

Increasing challenging demands

20. When an interesting project comes along, I offer myself 0.75

proactively as project co-worker

16. When there is not much to do at work, I see it as a 0.71

chance to start new projects

14. I regularly take on extra tasks even though I do not 0.64

receive extra salary for them

19. I try to make my work more challenging by examining 0.61

the underlying relationships between aspects of my job

5. If there are new developments, I am one of the first to

learn about them and try them out^a

Note. Only factors above > 0.40 are reported, $N = 436$.

^aThis item was excluded from the analysis due to loadings on non-intended dimensions.

Questionnaires

Onderzoek naar de relatie tussen 'job crafting', authenticiteit en welbevinden

Geachte deelnemer,

Hartelijk dank dat u (wederom) meewerkt aan het onderzoek naar job crafting! Het doel van huidig onderzoek is inzicht krijgen in de relatie tussen 'job crafting' (fysieke en mentale aspecten van werk in overeenstemming brengen met persoonlijke voorkeuren), authenticiteit en welbevinden.

Aan het begin van de vragenlijst worden een aantal achtergrondgegevens gevraagd. De overige vragen hebben betrekking op uw werk. Indien u op dit moment niet werkzaam bent, denk dan terug aan eerdere functies die u uitgeoefend heeft. De informatie die u verstrekt, zal geheel anoniem en strikt vertrouwelijk behandeld worden. Dit betekent dat de resultaten alleen verwerkt worden door de Universiteit Utrecht en niet worden gekoppeld aan (uw inschrijving bij) Derks & Derks B.V.

Het invullen van de vragenlijst neemt ongeveer 15 minuten van uw tijd in beslag. Over uw antwoorden hoeft u niet lang na te denken, het gaat om uw eerste ingeving. Bovendien bestaan er geen goede of foute antwoorden. Let op: u kunt geen vragen overslaan. Voor de verwerking van de data is het van belang dat u alle vragen invult. Verder is het goed om te weten dat u niet terug kunt naar een vorige pagina. Wanneer u de vragenlijst heeft ingevuld, is het voor de verwerking van antwoorden noodzakelijk op 'verzenden' te klikken.

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Uiteraard is deelname geheel vrijblijvend en kunt u gedurende het onderzoek op elk moment stoppen. Uw gegevens worden dan niet verwerkt. Wanneer u voor, tijdens of na het onderzoek vragen of suggesties heeft, kunt u mij bereiken via Anneke@derksenderks.nl. Zodra u naar de volgende pagina gaat, stemt u in met deelname aan dit onderzoek. Alvast hartelijk dank hiervoor!

Met vriendelijke groet,

Anneke den Hartog

Masterstudente Sociale- en Organisationspsychologie aan de Universiteit Utrecht en stagiaire bij Derks & Derks B.V.

In samenwerking met: dr. Veerle Brenninkmeijer

Onderzoekbegeleidster Universiteit Utrecht

drs. Jan Derks

Directeur Derks & Derks B.V.

Persoonlijke code

Hieronder vragen wij u of u een persoonlijke code aan wilt maken. Met behulp van deze code kunnen we de antwoorden koppelen aan eventueel eerder gegeven antwoorden (indien u vorig jaar heeft meegewerkt aan het onderzoek) of bij eventueel vervolgonderzoek uw antwoorden koppelen. Op deze manier blijft uw anonimiteit gewaarborgd. Deze code wordt niet verbonden aan Derks & Derks en zal uitsluitend beheerd worden door de Universiteit Utrecht.

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

De persoonlijke code bestaat uit de 4 cijfers van uw geboortedag, de eerste letter van de voornaam van uw vader, gevolgd door de eerste letter van de voornaam van uw moeder.

Voorbeeld: Is uw geboortedag 6 oktober, de voornaam van uw vader Bert en de voornaam van uw moeder Jannie, dan wordt uw persoonlijke code dus: 0610BJ

Indien u ons wilt helpen door een persoonlijke code aan te maken en uw anonimiteit te waarborgen, vul deze dan hieronder in.

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Achtergrondgegevens

- | | |
|--|---|
| 1. Wat is uw geslacht? | Man/vrouw |
| 2. Wat is uw leeftijd? | |
| 3. Wat is uw hoogst afgeronde opleiding? | Lagere school
MAVO, LBO, VMBO
HAVO, MBO
VWO
HBO
WO |
| 4. Heeft u een leidinggevende functie? | Ja/nee |
| 5. Bent u zelfstandig ondernemer? | Ja/nee |
| 6. Voor hoeveel uur per week heeft u contractueel een aanstelling? | |
| 7. Hoeveel jaar bent u werkzaam? | 0 tot 2 jaar
2 tot 5 jaar
5 tot 10 jaar
> 10 jaar |

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

8. Hoeveel jaar bent u werkzaam in uw huidige functie?
9. Tot welke functiegroep behoort uw functie?
- QA / regulatory affairs
 - Technisch
 - Sales / marketing
 - Medische expert
 - IT
 - HRM
 - Inkoop
 - Financiën
 - Administratief
 - Planning / logistiek
 - R&D
 - QC / laboratorium
 - Management / directie
 - Overig
10. In welke branche bent u momenteel werkzaam?
- Voedingsmiddelenindustrie
 - Farma / Biotechnische
 - Industrie
 - Gezondheidszorg
 - Medical Devices / Laboratoriumbenodigdheden
 - Overig

Job Crafting: Job Crafting Scale

JOB CRAFTING, AGE, AUTHENTICITY, ENGAGEMENT AND EXHAUSTION

De volgende uitspraken gaan over uw gedrag op werk. Kies bij iedere stelling het antwoord dat op u van toepassing is.

1. Ik zorg ervoor dat ik mijn capaciteiten optimaal benut.
2. Ik zorg ervoor dat ik niet teveel hoef om te gaan met personen wier problemen mij emotioneel raken.
3. Ik vraag collega's om advies.
4. Ik probeer mezelf bij te scholen.
5. Als er nieuwe ontwikkelingen zijn, sta ik vooraan om ze te horen en uit te proberen.
6. Ik vraag of mijn leidinggevende tevreden is over mijn werk.
7. Ik zorg ervoor dat ik zelf kan beslissen hoe ik iets doe.
8. Ik zorg ervoor dat ik minder moeilijke beslissingen in mijn werk hoef te nemen.
9. Ik probeer nieuwe dingen te leren op mijn werk.
10. Ik vraag anderen om feedback over mijn functioneren.
11. Ik zorg ervoor dat ik minder emotioneel inspannend werk moet verrichten.
12. Ik zoek inspiratie bij mijn leidinggevende.
13. Ik probeer mezelf te ontwikkelen.
14. In neem geregeld extra taken op me hoewel ik daar geen extra salaris voor ontvang.
15. Ik zorg ervoor dat ik niet teveel hoef om te gaan met mensen die onrealistische verwachtingen hebben.
16. Als het rustig is op mijn werk, zie ik dat als een kans om nieuwe projecten op te starten.
17. Ik vraag mijn leidinggevende om mij te coachen.
18. Ik zorg ervoor dat ik minder geestelijk inspannend werk hoef te verrichten.
19. Ik probeer mijn werk wat zwaarder te maken door de onderliggende verbanden van mijn werkzaamheden in kaart te brengen.

20. Als er een interessant project voorbij komt, bied ik mezelf proactief aan als projectmedewerker.

21. Ik zorg ervoor dat ik me niet lange tijd achter elkaar hoef te concentreren.

Antwoordschalen: 1= nooit, 2= soms, 3= regelmatig, 4= vaak, 5= heel vaak

Authenticiteit: Individual Authenticity Measure at Work

De volgende stellingen hebben betrekking op uw meest recente **werksituatie**.

Probeer bij het beantwoorden zo goed mogelijk voor te stellen in hoeverre de stellingen op u van toepassing zijn geweest in de laatste vier weken.

1. Andere mensen beïnvloeden mij sterk op mijn werk.
2. Op mijn werk gedraag ik me op de manier welke van mij wordt verlangd.
3. Ik word sterk beïnvloed door wat anderen op mijn werk vinden.
4. Ik vind het gemakkelijker om goed op te schieten met mensen op mijn werk wanneer ik mezelf ben.
5. Ik houd op mijn werk vast aan de overtuigingen waar ik in geloof.
6. Op mijn werk blijf ik trouw aan wie ik ben.
7. Ik voel me op mijn werk niet verbonden met wie ik echt ben.
8. Op mijn werk gedraag ik me in overeenstemming met mijn eigen waarden en overtuigingen.
9. Ik voel me op mijn werk vervreemd van mijzelf.
10. Op mijn werk voel ik me afgesloten van wie ik werkelijk ben.
11. Op mijn werk heb ik de behoefte om te doen wat anderen van mij verwachten.
12. Ik voel me op mijn werk niet zoals ik werkelijk ben.

Antwoordschalen: 0= helemaal niet op mij van toepassing, 1, 2, 3= neutraal, 4,5 en 6= helemaal op mij van toepassing.

Bevlogenheid: Utrecht Work Engagement Scale

De volgende uitspraken gaan over de manier waarop u uw werk beleeft en hoe u zich daarbij voelt. Kies bij elke uitspraak het voor u best passende antwoord.

1. Op mijn werk bruis ik van energie.
2. Als ik werk voel ik me fit en sterk.
3. Als ik 's morgens opsta heb ik zin om aan het werk te gaan.
4. Ik ben enthousiast over mijn baan.
5. Mijn werk inspireert mij.
6. Ik ben trots op het werk dat ik doe.
7. Ik ga helemaal op in mijn werk.
8. Mijn werk brengt mij in vervoering.
9. Wanneer ik heel intensief aan het werk ben, voel ik mij gelukkig.

Antwoordschalen: 0= nooit, 1= sporadisch (een paar keer per jaar of minder), 2= af en toe (eens per maand of minder), 3= regelmatig (een paar keer per maand), 4= dikwijls (eens per week), 5= zeer dikwijls (een paar keer per week) en 6= altijd (dagelijks)

Emotionele Uitputting: Utrechtse Burnout Schaal

1. Ik voel me mentaal uitgeput door mijn werk.
2. Een hele dag werken vormt een zware belasting voor mij
3. Ik voel me 'opgebrand' door mijn werk.
4. Aan het einde van de werkdag voel ik me leeg.

5. Ik voel me vermoeid als ik 's morgens opsta en er weer een werkdag voor me ligt.

Antwoordschalen: 0= nooit, 1= sporadisch (een paar keer per jaar of minder), 2= af en toe (eens per maand of minder), 3= regelmatig (een paar keer per maand), 4= dikwijls (eens per week), 5= zeer dikwijls (een paar keer per week) en 6= altijd (dagelijks).

Afsluiting

Tot slot willen wij graag weten via welke weg u op de hoogte bent gebracht van deze vragenlijst?

- Derks & Derks B.V.
- Social media (persoonlijke pagina van Anneke)
- Persoonlijk benaderd door de enquêteur
- Anders, namelijk.....

Indien u geïnteresseerd bent in de resultaten van dit onderzoek, kunt u uw e-mailadres hieronder invullen. Uw e-mailadres wordt niet gekoppeld aan uw persoonlijke gegevens, waardoor uw anonimiteit gewaarborgd blijft. Naar verwachting ontvangt u de resultaten in augustus 2017.

Als u in de toekomst wilt meewerken aan dit onderzoek, kunt u hieronder uw e-mailadres invullen. Uw mailadres zal strikt vertrouwelijk behandeld worden en uitsluitend gebruikt worden voor een eventuele vervolgmeting.

Hartelijk dank voor uw deelname en vergeet niet op 'verzenden' te klikken!