Job design in blue- and white-collar jobs: the influence of transformational leadership on job crafting and i-deals

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Abstract

Purpose – Whereas job crafting and idiosyncratic deals (i-deals) have primarily been studied in white-collar jobs, there is a lack of research on job design in less skilled and highly structured work. Our study addresses this gap by analyzing the effects of transformational leadership on job crafting and i-deals in blue- and white-collar jobs.

Design/methodology/approach – To test our hypotheses, we surveyed 285 employees (31.9% blue-collar employees and 68.1% white-collar employees) in the German craft industry, using structural equation modeling for data analysis.

Findings – Our results show that transformational leadership is a strong predictor of job crafting and i-deals but that its influence depends on the occupational group. More specifically, the moderating role of the occupational group in the relationship between transformational leadership and job crafting differs regarding job crafting’s dimensions. Concerning i-deals, transformational leadership’s influence on both development and task i-deals is stronger in white-collar jobs than it is in blue-collar jobs.

Practical implications – The study provides new insights into the important role of the work context in which leadership takes place. In particular, these insights can guide leaders in how to manage different occupational groups to engage them in proactive behaviors.

Originality/value – This study is the first to compare the contextual roles of blue- and white-collar jobs with regard to job design. By examining the influence of transformational leadership on job crafting and i-deals in two occupational groups, our study contributes to research on the role of work context in the effectiveness of transformational leadership in encouraging employees to engage in proactive behaviors.

Keywords Job design, Blue-collar jobs, White-collar jobs, Transformational leadership, Job crafting, Idiosyncratic deals

Paper type Research paper

Introduction

Changing social values are among the many causes of employees’ demanding more individualization in their work. Because traditional top-down job design offers limited opportunities to individualize working conditions, employees tend to redefine and modify...
their working roles from the bottom up (Hornung et al., 2010). One way employees customize their work is by engaging in proactive behavior, which Crant (2000, p. 436) defines as “taking initiative in improving current circumstances or creating new ones”. In doing so, employees can adapt their working conditions and work content to their individual needs, interests, and abilities (e.g. Oldham and Hackman, 2010; Rousseau et al., 2006; Tims and Bakker, 2010).

Job crafting and idiosyncratic deals (i-deals) as forms of proactive behavior have received increasing research interest over the past 20 years. Both concepts differ from traditional job design as a top-down process (Hornung et al., 2010). While job crafting describes changes in jobs that employees initiate themselves (Wrzesniewski and Dutton, 2001), i-deals refer to personalized agreements between employees and their employers (Rousseau et al., 2006). Both forms of proactive behavior can have positive effects for employees and organizations. For example, studies show that job crafting and i-deals can increase motivation and commitment to the organization, thus reducing turnover intention (e.g. Rofcanin et al., 2016; Zhang and Li, 2020). These advantages are particularly attractive for organizations that operate in industries that suffer from shortages of skilled workers. By encouraging employees to adapt their work to their personal needs and preferences, organizations may be able to motivate and retain valuable employees.

Research in organizational behavior highlights the role of leaders in employees’ proactive behavior, as leaders can increase their employees’ proactive behavior by providing an autonomous work environment and offering support (e.g. Parker et al., 2006), by fostering their engagement in their work (e.g. Den Hartog and Belschak, 2012), or by considering employees’ needs. Research on both job crafting and i-deals suggests positive associations with leader behaviors, especially transformational leadership behaviors, as these leaders tend to give employees a high degree of job autonomy that is essential for proactive behavior to emerge (e.g. Den Hartog and Belschak, 2012; Liao et al., 2016). However, research has not addressed the question of how effective transformational leadership is in promoting proactive behaviors, such as job crafting and negotiating i-deals, among different occupational groups.

Against the backdrop that employees of different occupational groups are embedded in different work contexts characterized by different contextual factors (Johns, 2006, 2018), organizational behavior research would expect differences in behaviors and their outcomes for employees of these groups. In fact, this strand of research has so far emphasized that the work context plays an important role in determining the meaning of the behavior and how it occurs and relates to other variables (Johns, 2006). Given that the review by Morgeson et al. (2010) stresses that the work context can serve as a main or moderating factor of job design, research on both job crafting and i-deals increasingly calls for contextualized study designs (e.g. Anand and Rofcanin, 2022; Luu and Djurkovic, 2019; Park and Park, 2023; Tims et al., 2022; Zhang and Parker, 2019) to develop a comprehensive understanding of these concepts (Johns, 2006, 2018). In particular, the i-deals literature, with its so-far limited number of studies that shed light on specific occupational groups (e.g. Bal and Boehm, 2019; Hornung et al., 2009; Hornung et al., 2014), requires a stronger focus on specific work contexts.

Looking more closely at the work contexts in which job design has been studied so far, it is striking that there is a lack of research on job design in the highly structured work that is common in blue-collar jobs (e.g. Anand and Rofcanin, 2022; Hornung et al., 2014; Lazazzara et al., 2020). Blue-collar employees are usually faced with physical and/or hierarchical constraints (Schreurs et al., 2011), whereas white-collar employees are likely to have more opportunities to customize their working conditions (Lips-Wiersma et al., 2016). Given the differences between blue- and white-collar jobs, it is reasonable to expect that the extent to which leaders can promote proactive behavior varies with the occupational groups. Hence, the aim of our study is to analyze the influence of transformational leadership on job crafting and i-deals in blue- and white-collar jobs.
Theoretical background and development of hypotheses

Blue- and white-collar jobs

The distinction between blue- and white-collar jobs is well established in the literature. In terms of the content of work, blue-collar employees perform more physical labor, which tends to be monotonous and repetitive (Hu et al., 2010), while white-collar employees usually handle more complex and varied tasks (Morgeson and Humphrey, 2006; Huang, 2011). The work done in white-collar jobs primarily involves intangible, abstract objects like data, concepts, knowledge, and information, while blue-collar employees tend to work with concrete objects like materials, machines, and tools (e.g. Schreurs et al., 2011). Since blue-collar jobs are likely to involve the processing of tangible materials, the work is measurable and assessable by both the employer and customers. White-collar jobs typically involve processing information, a task that is largely intangible and unmeasurable (Lips-Wiersma et al., 2016).

Job resources also differentiate blue-collar from white-collar jobs, defined as physical, psychological, social, or organizational aspects of the job used by employees to achieve goals, manage demands, and promote personal growth (Bakker and Demerouti, 2007). Nielsen and Abildgaard (2012) show that blue-collar employees are given fewer opportunities to decide with whom they work, and they work under clear instructions and structures that limit their ability to influence their structural working conditions. These findings and blue-collar employees’ greater dependence on their employers and customers suggest that they are likely to have fewer job resources than white-collar employees do, which limits their ability to proactively design their jobs.

In addition, studies comparing the effects of interventions promoting proactive behavior across different occupational groups (e.g. Gordon et al., 2018; Oprea et al., 2019) indicate that the work context in which the intervention is delivered can have a considerable impact on its outcomes on the individual level. This is in line with the theoretical considerations of Johns (2006), who distinguishes different “faces of context” and understands the context, for example, as a cross-level effect. Morgeson et al. (2010) also emphasize that work contexts can influence job-design characteristics and individual-level outcomes.

Job crafting and i-deals

Research shows evidence of the shift in job design from a top-down to a more proactive, bottom-up approach (e.g. Oldham and Hackman, 2010). Job crafting and i-deals are established concepts regarding employees’ proactive behavior that share a key conceptual similarity: they both align working conditions with individual needs and preferences (e.g. Rousseau et al., 2006; Tims and Bakker, 2010).

Job crafting includes changes to the job that aim to positively affect the meaning and identity of work, i.e. the way in which individuals attempt to create positive images of themselves at work (Wrzesniewski and Dutton, 2001). Tims and Bakker (2010) see job crafting as changing jobs’ resources and demands by creating a fit between individuals and the requirements they must meet. Engaging in job crafting is possible without the employer’s or supervisor’s awareness (Tims and Bakker, 2010), as neither is involved in the job crafting (Wrzesniewski and Dutton, 2001; Zhang and Parker, 2019).

Job crafting comprises both approach behaviors and avoidance behaviors (Tims and Bakker, 2010; Wrzesniewski and Dutton, 2001). While approach crafting refers to modifying job resources and/or demands to increase the positive or desirable aspects of work, avoidance crafting refers to changing job resources and/or demands to avoid the negative aspects of work (Bruning and Campion, 2018). In light of the ongoing debate that addresses whether avoidance crafting constitutes proactive behavior at all (Zhang and Parker, 2019), our study focuses on approach crafting as it considers the influence of transformational leadership on employees’ proactive behavior.
Approach crafting can be divided into three dimensions: increasing structural job resources, increasing social job resources, and increasing challenging job demands (Tims et al., 2012). Expanding one’s self-development opportunities and autonomy on the job are examples of increasing structural job resources. Asking others for feedback on one’s job performance or for coaching are examples of increasing social job resources. Increasing challenging job demands can involve taking on extra tasks or initiating new projects (e.g. Tims et al., 2012; Zhang and Parker, 2019).

Rousseau et al. (2006, p. 978) define i-deals as “personalized agreements of a nonstandard nature between individual employees and their employers regarding terms that benefit each party”. I-deals are characterized by three principal features: a unique individual agreement that is reached between an employee and his or her employer, special resources given to one employee that are not available to all employees, and benefits for both the employee and the employer (Rousseau et al., 2006). An i-deal offers a “win-win”, which can be explained on the grounds of the norm of reciprocity: an employee who proactively negotiates an i-deal expects the employer to grant it based on the contributions the employee has made to the organization, while an employer expects that the employee will respond to the i-deal with positive behaviors that favor the organization (Liao et al., 2016).

Research identifies several types of i-deals in terms of their content, including development i-deals, task i-deals, flexibility i-deals, and financial i-deals. Given the focus on job design, this study investigates development i-deals and task i-deals. Development i-deals are personalized opportunities for an employee’s training and development, while task i-deals are agreements that allow an individual to take on special tasks (Liao et al., 2016). Both types of i-deals relate to employees’ skills and responsibilities and are aimed at making work more intrinsically motivating by improving employees’ perceptions of their work and increasing their job satisfaction, job performance, and commitment to the organization (e.g. Hornung et al., 2010, 2014; Rofcanin et al., 2016). In addition, these types of i-deals have been shown to be negotiated in various work contexts, whereas the negotiation of flexibility i-deals, for example, is to a great degree limited by structural conditions such as fieldwork (Hornung et al., 2009, 2010). Therefore, development i-deals and task i-deals are suitable types of i-deals to be investigated in different occupational groups.

The influence of transformational leadership on job crafting and i-deals in blue- and white-collar jobs

Employees’ proactive behavior has been shown to positively influence their job performance and commitment (Crant, 2000; Thomas et al., 2010). According to the model of proactive motivation, three proactive motivational states (“can do”, “reason to”, and “energized to”) determine the proactive motivation and goal processes upon which proactive behavior is built (Parker et al., 2010). Research on the underlying mechanisms of employee proactivity has shown that transformational leadership, in particular, as opposed to the other leadership styles of the Full Range-Leadership model (Avolio and Bass, 1991), i.e. transactional and passive leadership, can enhance all three proactive motivational states (Bazzoli and Curcuruto, 2021). Thus, leaders can promote employee proactivity through transformational leadership (Den Hartog and Belschak, 2012). Accordingly, this leadership style is being discussed as an important antecedent of employee proactivity in different research streams, such as research on management and occupational and organizational psychology (e.g. Adhyke et al., 2023; Ashfaq et al., 2023; Schmitt et al., 2016).

Bass’ (1985) model of transformational leadership distinguishes four components of transformational leadership: idealized influence, inspirational leadership, intellectual stimulation, and individualized consideration. Idealized influence refers to transformational leaders’ putting their own interests behind the interests of the group, conveying enthusiasm,
and exemplifying positive behavior. Transformational leaders show inspirational leadership by demonstrating a vision and showing how it can be reached. Intellectual stimulation refers to leaders’ breaking with established patterns of thinking and providing new insights. Finally, individualized consideration occurs when leaders act as coaches and supporters of employees’ individual development and promote employees individually (Bass, 1999).

Although job crafting is considered a bottom-up approach that leaders may or may not see happening (Tims and Bakker, 2010; Wrzesniewski and Dutton, 2001), studies demonstrate that leaders can also facilitate employees’ job crafting (e.g. Kim and Beehr, 2018, 2019). Research on transformational leadership emphasizes leaders’ potential to provide employees with the motivation they need to engage in job crafting, suggesting in particular that transformational leadership plays an essential role in promoting employees’ approach crafting (Hetland et al., 2018).

Furthermore, by increasing structural job resources, transformational leaders can encourage employees to use their capacities fully and to develop new capabilities. For instance, painting a positive image of the future and showing how to achieve it provides guidance for employees. Referring to the Job Demands-Resources model, increasing structural resources can also help employees achieve their goals, manage demands, and grow (Bakker and Demerouti, 2007), thus fulfilling their need for achievement and growth. Transformational leaders stand up for their employees’ interests, personify desirable values through exemplary behavior, and trigger employees’ identification with them. These leader behaviors may result in employees’ job-crafting behaviors related to increasing social job resources, such as seeking feedback, looking to the leader for inspiration, or asking the leader for coaching. Finally, transformational leaders can encourage their employees to leave proven patterns of thinking and look for new challenges so they gain control over their individual development. Extant research has shown that transformational leaders can encourage their employees to take the initiative in looking for job challenges by taking on extra tasks or starting new projects (Naeem et al., 2021). Taken together, the behaviors of transformational leaders—modeling exemplary behavior, conveying enthusiasm, challenging intellectually, and demonstrating a vision (Bass, 1999)—encourage employees to engage in approach crafting. Therefore, we hypothesize:

**H1a.** Transformational leadership is positively related to the three dimensions of approach crafting, i.e. increasing structural job resources, increasing social job resources, and increasing challenging job demands.

Proactivity among employees can also be triggered by leaders’ individualized approach to employees. Transformational leaders see their employees in terms of their individual personalities, needs, and skills and position themselves as mentors or coaches supporting their employees’ development (Bass, 1999). One way for leaders to take an individual approach to their employees is to convey openness to employees’ negotiation of individual arrangements related to their development and/or assignments. Thus, leaders can support their employees’ individual growth by acting as bargaining partners on behalf of the employer and approving the resulting i-deals (e.g. Hornung et al., 2009).

Although evidence on leadership styles’ impact on i-deals is scarce, research demonstrates that negotiation of i-deals is more likely when leaders and their employees have relationships that feature trust and social exchange (e.g. Hornung et al., 2010, 2014; Rosen et al., 2013). Therefore, employee-oriented leadership is positively related to development i-deals (Hornung et al., 2011), as these leaders are interested in their employees’ well-being, strive for good relationships, and work to support them (Judge et al., 2004). Similarly, leaders’ empathy, which comprises the dimensions of perspective-taking and empathetic concern, is positively associated with the successful negotiation of development i-deals (Rao and Kunja, 2019). Both employee-oriented leadership and
empathic leadership have facets that are consistent with transformational leadership, particularly with regard to individualized consideration.

Both development i-deals and task i-deals involve employees’ duties, skills, and responsibilities, but the focus of development i-deals lies on career progress through training and development, while task i-deals involve changes in the content of employees’ jobs (Hornung et al., 2014). Because these two kinds of i-deals are closely related, we expect leadership’s effects on both types of i-deals to be similar.

Transformational leaders may promote the negotiation of i-deals among employees by emphasizing the importance of individual growth and skill development, so they may provide employees with the prospect of successfully negotiating an i-deal, which may increase employees’ willingness to do so. Therefore, we hypothesize:

**H1b.** Transformational leadership is positively related to the two types of i-deals, i.e. development i-deals and task i-deals.

Research on blue- and white-collar jobs suggests that transformational leadership’s influence on employees’ job designs differs between the occupational groups. Since blue-collar employees’ work is usually measurable and transparent, employers and customers have more opportunities to monitor their work than they do the work of white-collar employees (Tarafdar and Saunders, 2022). Blue-collar workers depend heavily on employers and customers, so the degree to which these employees are able to customize their jobs is limited (Demerouti et al., 2020). The limited scope for action in blue-collar jobs also entails less freedom for their leaders in advancing their employees’ development, as these leaders have limited opportunities to encourage blue-collar employees to adapt their work to their individual needs and preferences by engaging in job crafting or negotiating i-deals. In contrast, because of white-collar employees’ greater scope for action, their leaders have more opportunities to support their employees’ efforts to individualize their jobs. Hypotheses 2a and 2b reflect this reasoning:

**H2a.** The occupational group moderates the positive relationship between transformational leadership and the three dimensions of approach crafting, i.e. increasing structural job resources, increasing social job resources, and increasing challenging job demands, such that the relationships are stronger for white-collar employees than they are for blue-collar employees.

**H2b.** The occupational group moderates the positive relationship between transformational leadership and the two types of i-deals, i.e. development i-deals and task i-deals, such that the relationships are stronger for white-collar employees than they are for blue-collar employees.

Figure 1 illustrates our conceptual model.

**Method**

**Procedure and sample**

We collected data from an online survey conducted between July and October 2021. Our study’s target group were blue- and white-collar employees in the German craft industry. We distributed the survey through various institutions and associations, such as German craft institutions, purchasing groups, and trade magazines.

We excluded three responses from the 288 employees who completed our survey because these respondents failed one or both attention checks. Our final sample consists of 285 respondents, of which 49.5% are women. The respondents’ mean age is 40.24 years (SD = 11.58), 37.9% had completed vocational training, and 8.4% had a university degree. Blue-collar jobs are held by 31.9% of the respondents, while 68.1% work in white-collar jobs.
The average size of the organizations that employ the respondents is 46 employees, but more than half of the respondents (54.7\%) work in organizations that employ between 10 and 49 employees. The respondents’ average tenure is 10.81 years ($SD = 9.98$). They are employed predominantly in the plumbing, heating, and air conditioning sectors, but they are also employed in a variety of other craft disciplines, such as the electrical trade, carpentry, or the glazier trade.

**Measures**

All measures, of which there is no validated German version yet, were translated from English to German using a translation/back-translation procedure (Brislin, 1986). We conducted a pre-test with representatives of the craft industry (e.g. fitters, office workers, and managing directors) to test the survey’s comprehensibility in terms of language and content. We also reviewed the applicability to the craft industry of the measure that captures work-related tasks (Herr et al., 2015a, b) and made linguistic and conceptual adjustments.

We determined the respondents’ occupational group using the occupational title they provided in the form of a free-text answer. Respondents also specified whether their work activities were physical activities, office-based activities, or both. If the respondents chose “both”, they were asked to indicate the percentage distribution of their work between physical and office-based activities. Respondents also indicated on a three-point scale from 1 (“never”) to 3 (“often”) the frequency with which they performed each of nine types of activities (e.g. “repair, maintenance, and servicing”). In collaboration with representatives of the craft industry, we modified the work-related tasks proposed by Herr et al. (2015a, 2015b) to reflect the tasks performed by employees of craft disciplines. We used this scale when we could not clearly assign a respondent to a blue-collar or white-collar job based on the occupational title and type of work activity.

We measured transformational leadership using the validated German version of the Transformational Leadership Inventory (Podsakoff et al., 1996; translation by Heinitz and Rowold, 2007). This inventory contains 22 items that respondents answered using a five-point scale ranging from 1 (“never”) to 5 (“always”) to indicate how often their leaders showed a certain kind of behavior. Leadership behavior is described by six dimensions: articulating a vision (five items: e.g. “Paints an interesting picture of the future for his employees”), providing an appropriate model (three items: e.g. “Provides a good model for me to follow”), fostering acceptance of group goals (four items: e.g. “Encourages his employees to be ‘team players’”), high performance expectations (e.g. “Shows his employees that he expects a lot from them”), individualized support (four items: e.g. “Shows respect for my personal

![Figure 1. Conceptual model](image-url)
feelings”), and intellectual stimulation (three items: e.g. “Has stimulated me to think about old problems in new ways”). The confirmatory factor analysis indicates a composite second-order factor of transformational leadership that is composed of five dimensions, excluding the dimension for high performance expectations. The scales’ Cronbach’s α was high (0.95).

We assessed job crafting using the Job Crafting Scale (JCS) from Tims et al. (2012), which was translated into German by Lichtenthaler and Fischbach (2016). While the JCS contains 21 items, we used only the items that correlate closely with motivation to use approach crafting based on Elliot’s (2006) approach-avoidance motivation theory and that are grouped under approach crafting (e.g. Bipp and Demerouti, 2015; Bruning and Campion, 2018). Approach crafting has three subscales, which we measured with five items each using a five-point scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”): increasing structural job resources (e.g. “I try to develop my capabilities.”; Cronbach’s α = 0.76), increasing social job resources (e.g. “I ask my supervisor to coach me.”; Cronbach’s α = 0.75), and increasing challenging job demands (e.g. “When an interesting project comes along, I offer myself proactively as project coworker.”; Cronbach’s α = 0.71). To improve the homogeneity of the scales, we eliminated four items from the hypotheses-testing: two items that measure increasing structural job resources, one item that measures increasing social job resources, and one item that measures increasing challenging job demands.

We captured i-deals using eight items developed by Hornung et al. (2014) and Tang and Hornung (2015). The measure required the respondents to indicate the extent to which they had successfully negotiated individual arrangements regarding development opportunities (five items: e.g. “Customized learning and qualification opportunities”; Cronbach’s α = 0.92) and job tasks (three items: e.g. “Personally motivating job tasks”; Cronbach’s α = 0.86). Respondents rated the extent to which they had obtained those i-deals on a five-point scale that ranged from 1 (“does not apply at all”) to 5 (“fully applies”).

We used attention checks to identify inattentive respondents so we could remove their surveys from the statistical analyses (Maniaci and Rogge, 2014). In addition, we recorded demographic variables for the purpose of describing the sample: gender, age, highest educational degree, organizational tenure, organization size, and craft discipline.

**Statistical analysis and results**

We employed multi-group confirmatory factor analysis using structural equations to test measurement invariance (Baumgartner and Steenkamp, 1998). We tested for configural invariance (i.e. equivalence in factor structure) and metric invariance (i.e. equivalence in factor loadings). Since scalar invariance (i.e. equivalence of item intercepts or thresholds) is required if multi-group comparisons of factor means are performed, and this study examined relational equivalence (comparing the relationships between latent variables across both groups), testing for scalar invariance was not required. We used the Comparative Fit Index (CFI), the Tucker Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the χ² test to test measurement invariance (Hu and Bentler, 1999).

The configural invariance model (unconstrained baseline model) fit the data well (χ² = 2024.13, df = 1280.0, χ²/df = 1.58, CFI = 0.90, TLI = 0.89, and RMSEA = 0.05), so configural invariance was supported. To test for metric invariance, we constrained the measurement weights across the two groups before comparing the constrained baseline model (metric invariance model) and the unconstrained baseline model (configural invariance model). The χ²-difference-test was not statistically significant (Δχ² = 40.294, p = 0.062), so differences between blue- and white-collar employees were not due to measurement invariance.

Table 1 presents the means, standard deviations, and correlations among the variables for blue- and white-collar employees. The two types of employees showed equal distributions of
all variables except for transformational leadership and increasing structural job resources, as the mean score for transformational leadership of white-collar employees ($M = 3.66$) was significantly higher than that for blue-collar employees ($M = 3.43$, $U = 7,474$, $p < 0.05$), and blue-collar employees engaged in increasing structural job resources ($M = 4.50$) significantly more often than white-collar employees did ($M = 4.32$, $U = 7,226$, $p < 0.05$). As expected, transformational leadership correlated positively with increasing social job resources ($r = 0.49$ and $r = 0.51$, both $p < 0.001$), with increasing challenging job demands ($r = 0.18$ and $r = 0.14$, both $p < 0.05$), with development i-deals ($r = 0.19$, $p < 0.01$; $r = 0.23$, $p < 0.05$), and with task ideals ($r = 0.47$ and $r = 0.47$, both $p < 0.001$). The correlation between transformational leadership and increasing structural job resources was significantly positive for white-collar employees ($r = 0.25$, $p < 0.001$) and non-significant for blue-collar employees ($r = 0.11$, n.s.).

We also conducted Confirmatory Factor Analysis (CFA) to test for the constructs’ factorial structure. CFA results are presented in Table 2. We compared five alternative

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>$d_f$</th>
<th>$\chi^2/d_f$</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
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<td>6-factor model$^a$</td>
<td>3207.66</td>
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<td>3-factor model$^c$</td>
<td>3379.11</td>
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<td>3-factor model$^d$</td>
<td>4768.37</td>
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<td>2.419</td>
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<td>single-factor model$^e$</td>
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<td>3.430</td>
<td>0.68</td>
<td>0.66</td>
<td>0.07</td>
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**Note(s):** $^a$Transformational leadership as a second-order construct; increasing structural job resources, increasing social job resources, increasing challenging job demands, development i-deals, and task i-deals as first-order constructs

$^b$Transformational leadership as a second-order construct; increasing structural job resources and development i-deals are loaded on one factor; increasing challenging job demands, increasing social job resources, and task i-deals as first-order constructs

$^c$Transformational leadership, job crafting and i-deals as second-order constructs

$^d$Transformational leadership, job crafting, and i-deals as first-order constructs

$^e$All variables are loaded on a single factor

$N = 285$

**Source(s):** Created by the authors
models to test the robustness of our proposed structural model. The selection of the alternative models was based on theoretical considerations and correlations among the variables. For example, we tested a model in which increasing structural job resources and development i-deals were loaded on one factor, which was due to their conceptual similarity and their high correlation. The proposed six-factor model with transformational leadership as a second-order construct and the dimensions of approach crafting and i-deals as first-order constructs was confirmed as the best-fitting structural model. To assess common-method variance, we performed Harman’s Single Factor Test, which determines whether a single factor explains the majority of the variance observed (Podsakoff et al., 2003). One factor explained only 34% of the variance, so we concluded that common-method variance is not a major concern in our model.

In testing the hypotheses, we performed Structural Equation Modeling (SEM) using SPSS AMOS 29. Given that SEM estimation is susceptible to deviation from multivariate normality, the data were assessed for multivariate normality. The critical ratio of Mardia’s multivariate kurtosis was higher than the critical value of 1.96, indicating that the data do not support the multivariate normality assumption. To minimize the effects of non-normality, Maximum Likelihood (ML) estimation with the bootstrap resampling method was used (e.g. Blunch, 2013; Hancock and Liu, 2012; Nevitt and Hancock, 2001). Figure 2 displays the standardized path estimates for the latent-variable path model. The model fit of the path model was good ($\chi^2$ (1944, $N = 285$) = 3411.51, $p = 0.000$, CFI = 0.90, TLI = 0.90, and RMSEA = 0.04).

Table 3 shows the bootstrapped path estimates ($\hat{\beta}$), standard errors (SE), and 95% bias-corrected confidence intervals.

The results show that transformational leadership is significantly related to increasing structural job resources ($\hat{\beta} = 0.271, p < 0.001$), increasing social job resources ($\hat{\beta} = 0.656, p < 0.001$), increasing challenging job demands ($\hat{\beta} = 0.297, p < 0.001$), development i-deals ($\hat{\beta} = 0.589, p < 0.001$), and task i-deals ($\hat{\beta} = 0.608, p < 0.001$). Hence, hypotheses 1a and 1b are supported.

![Figure 2](image_url)

**Note(s):** $N = 285$; total sample (bold), blue-collar employees (standard font), white-collar employees (italic). ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$

**Source(s):** Created by the authors
We conducted multi-group analyses to test the moderating role of the occupational group (Byrne, 2016), as this approach estimates the path coefficients of distinct groups more efficiently than analyzing each group separately does (Arbuckle, 1997). Conducting multi-group analysis allows for the identification of model relationships that differ significantly between the occupational groups (Sarstedt et al., 2021), providing a more comprehensive understanding of the occupational group’s impact on the different dimensions of approach crafting and i-deals. As our study differentiates between blue- and white-collar jobs, we categorized the sample into these two groups. In the first step, we used the chi-square difference test to compare the unconstrained model to the constrained model, which constrains all paths between the two groups so they are equal, and found that the differences in model fit were not statistically significant ($\Delta \chi^2 = 54.70, \Delta df = 74, p = 0.955$). In the second step, to investigate the moderating effect of the occupational group, we constrained each path coefficient separately to be equal across blue- and white-collar employees. Significant differences between the fit of the constrained model and that of the unconstrained model indicate that the occupational group has a moderating effect on that path. The results are shown in Table 4.

The results of the multiple-group analysis show that the relationship between transformational leadership and increasing structural job resources is significantly stronger for white-collar employees ($\beta = 0.348, p < 0.001$) than it is for blue-collar employees ($\beta = 0.174$, n.s.), while the opposite is the case in the relationship between transformational leadership and increasing social job resources, where the relationship is significantly stronger for blue-collar employees ($\beta = 0.727, p < 0.001$) than it is for white-collar employees ($\beta = 0.611, p < 0.001$). We found no significant difference in the strength of the relationship between increasing challenging job demands for blue- ($\beta = 0.351, p < 0.05$) and white-collar employees ($\beta = 0.268, p < 0.01$), so hypothesis 2a is partially supported.

<table>
<thead>
<tr>
<th>Path</th>
<th>Total sample</th>
<th>Blue-collar employees</th>
<th>White-collar employees</th>
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<tbody>
<tr>
<td>TF $\rightarrow$ STJ</td>
<td>0.271</td>
<td>0.174</td>
<td>0.348</td>
</tr>
<tr>
<td>TF $\rightarrow$ SOJ</td>
<td>0.656</td>
<td>0.727</td>
<td>0.611</td>
</tr>
<tr>
<td>TF $\rightarrow$ CD</td>
<td>0.297</td>
<td>0.351</td>
<td>0.268</td>
</tr>
<tr>
<td>TF $\rightarrow$ DI</td>
<td>0.589</td>
<td>0.561</td>
<td>0.611</td>
</tr>
<tr>
<td>TF $\rightarrow$ TI</td>
<td>0.608</td>
<td>0.598</td>
<td>0.643</td>
</tr>
</tbody>
</table>

**Note(s):** $\beta$: standardized estimates; S.E.: standard errors; BC CI: Bias-corrected confidence interval; TF: transformational leadership; STJ: increasing structural job resources; SOJ: increasing social job resources; CD: increasing challenging job demands; DI: development i-deals and TI: task i-deals

**Source(s):** Created by the authors

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**Note(s):** $\beta$: standardized estimates; S.E.: standard errors; BC CI: Bias-corrected confidence interval; TF: transformational leadership; STJ: increasing structural job resources; SOJ: increasing social job resources; CD: increasing challenging job demands; DI: development i-deals and TI: task i-deals

**Source(s):** Created by the authors
The influence of transformational leadership on both development i-deals and task i-deals is significantly stronger for white-collar employees ($\beta = 0.643$ and $0.611$, both $p < 0.001$) than it is for blue-collar employees ($\beta = 0.598$ and $0.561$, both $p < 0.001$), so hypothesis 2b is supported.

**Discussion**

Our empirical analysis of the influence of transformational leadership on job crafting and i-deals in blue- and white-collar jobs has two key findings: transformational leadership is a strong predictor of job crafting and i-deals and the influence of transformational leadership on these forms of proactive behavior differs with respect to the occupational group. According to this, transformational leadership of employees from different occupational groups is differentially effective in promoting employees’ proactive behaviors.

Testing hypothesis 1a revealed that transformational leadership is significantly related to all of the job-crafting dimensions that we investigated, but the strength of the relationships differs. Transformational leadership’s relationship with increasing social job resources is substantially stronger than its relationship with increasing structural job resources and increasing challenging job demands. This finding is in line with studies that show transformational leadership as a particularly strong predictor of increasing social job resources (Hetland *et al.*, 2018; Oprea *et al.*, 2022).

With respect to i-deals, testing hypothesis 1b revealed that transformational leadership has a strong relationship with both development i-deals and task i-deals. Our finding is in accordance with studies that demonstrate that leaders and their relationships with employees are strong predictors of employees’ engagement in development i-deals and task i-deals (e.g. Hornung *et al.*, 2011; Ho and Tekleab, 2016; Rao and Kunja, 2019). By paying attention to employees’ individual needs, transformational leaders encourage employees to negotiate i-deals that can help them achieve personal development goals and make their work more intrinsically motivating (Hornung *et al.*, 2014; Liao *et al.*, 2016).

The results of our study provide new insights into the variance in the influence of transformational leadership in motivating employees to engage in proactive behaviors depending on the occupational group. Testing hypothesis 2a revealed that the relationship between transformational leadership and increasing structural job resources is significant for white-collar jobs but not for blue-collar jobs. As structural job resources relate to changing how work is done (Tims *et al.*, 2013), the reason for the non-significant relationship for blue-collar employees may be that they tend to be independent from their leaders during

<table>
<thead>
<tr>
<th>Model (M)</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>RMSEA</th>
<th>NFI</th>
<th>IFI</th>
<th>CFI</th>
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<th>$\Delta df$</th>
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<td>0.90</td>
<td>0.90</td>
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<td>–</td>
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<td>$M_c$</td>
<td>3466.21</td>
<td>2018</td>
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<td>0.80</td>
<td>0.90</td>
<td>0.90</td>
<td>6.923**</td>
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</tr>
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</table>

**Note(s):** U: unconstrained; C: constrained; TF: transformational leadership; STJ: increasing structural job resources; SOJ: increasing social job resources; CD: increasing challenging job demands; DI: development i-deals; TI: task i-deals; RMSEA: root mean square error of approximation; NFI: normed fit index; IFI: incremental fit index and CFI: comparative fit index

***$p < 0.001$, **$p < 0.01$ and *$p < 0.05$**

**Source(s):** Created by the authors
their daily work routines, such as when blue-collar employees work on site with customers while their leaders work in an office (Saari et al., 2022). In contrast, transformational leadership has a significant positive relationship with increasing structural job resources for white-collar employees, as their leaders increase the autonomy, self-efficacy, and engagement that enable white-collar employees to craft their jobs (Oprea et al., 2022). Our results also revealed that the relationship between transformational leadership and increasing social job resources is stronger for blue-collar employees than it is for white-collar employees, as these leaders encourage their employees to seek feedback and advice from others rather than to change structural aspects of their job. Accordingly, transformational leadership is particularly effective for blue-collar employees, encouraging them to proactively expand their social networks. We find no significant difference between the occupational groups with regard to the relationship between transformational leadership and increasing challenging job demands, suggesting that transformational leaders inspire both kinds of employees to take on novel tasks and to widen their skills and grow personally (Tims et al., 2013). Therefore, when it comes to motivating employees to make their work more challenging and exciting, the transformational leadership approach is equally effective for both blue- and white-collar employees.

Testing hypothesis 2b revealed significant differences between the likelihood that blue-collar- and white-collar employees pursue development i-deals and task i-deals. Although the relationships between transformational leadership and development i-deals and task i-deals are significantly positive for both occupational groups, they are stronger for white-collar employees. Thus, transformational leaders of white-collar employees are more successful than transformational leaders of blue-collar employees in encouraging their employees to negotiate developmental and/or task i-deals. It is suggested that leaders of white-collar jobs have more opportunities to advance their employees’ development and motivation by granting them i-deals. A possible explanation for this finding is that blue-collar employees often work on-site with customers, so they have fewer interactions with their leaders than white-collar employees do (Saari et al., 2022). Above that, Herr et al. (2015b) revealed that white-collar employees place comparably higher value on the role of their superiors in general, so transformational leaders of white-collar employees may have a higher impact on their followers with regard to the negotiation of i-deals.

In addition to the findings from testing the hypotheses, this study provides valuable insights into transformational leadership and job design in different occupational groups. The results of the mean comparisons show that white-collar employees perceive their leaders as significantly more transformational than blue-collar employees do. Our finding is in line with empirical evidence that blue-collar employees tend to receive less support from their leaders than white-collar employees do (Väänänen et al., 2004). In small and family-owned firms like the craft enterprises on which we focused, white-collar employees are often led by the enterprises’ owners (Gottschalck et al., 2020), while blue-collar employees, whose jobs tend to be operational, lower-level jobs, are not. It is reasonable to suggest that leaders of blue-collar employees do not tend to be transformational because these leaders’ primary job is to clarify tasks, make corrections, and provide incentives, which are the core elements of transactional leadership (Burns, 1978; Mesu et al., 2015).

Our findings also provide evidence on the prevalence of job crafting and i-deals in different occupational groups. With the exception of increasing structural job resources, which is more prevalent among blue-collar employees, we found no significant differences in the prevalence of the other dimensions of job crafting or types of i-deals we studied. This result is remarkable, as researchers have questioned the transferability of findings about the prevalence of job crafting and i-deals across occupational groups (e.g. Hornung et al., 2009, 2014; Lazazzara et al., 2020). However, our study only considered those job-crafting dimensions and types of i-deals that are readily applicable to both blue- and white-collar
employees. For example, it is likely that flexibility i-deals are more widespread among white-collar employees than they are among blue-collar employees because the latter often face constraints on temporal and spatial flexibility, such as the need to use stationary materials, machines, and tools (e.g. Schreurs et al., 2011) and the need to interact with customers on site (Hornung et al., 2009, 2014).

Theoretical contributions and practical implications
This study contributes to research in several ways. By examining the influence of transformational leadership on job crafting and i-deals in two occupational groups, our study provides new insights into the role of work context in the effectiveness of transformational leadership in encouraging employees to engage in proactive behaviors.

By comparing the relationship between transformational leadership and job crafting in blue- and white-collar jobs, we extend the knowledge of the role of the work context in this relationship. Our results show that both blue- and white-collar employees craft their jobs and that the extent to which transformational leadership can promote this proactive behavior differs across job-crafting dimensions. Whereas some studies examine job crafting in the context of blue-collar jobs (Nielsen and Abildgaard, 2012; Demerouti et al., 2020; Taraifar and Saunders, 2022), to our knowledge, this study is the first to compare the contextual roles of blue- and white-collar jobs with regard to job crafting. By making this direct comparison, we shed light on the role of the work context and its conditions in employees’ engagement in bottom-up job design. Moreover, our study contributes to the validation of research findings on the relationship between transformational leadership and job crafting (Hetland et al., 2018; Naeem et al., 2021; Oprea et al., 2022).

Our study also sheds light on the role of the work context in the negotiation of i-deals. By comparing the relationship between transformational leadership and i-deals in blue- and white-collar jobs, we show that the extent to which transformational leaders promote i-deals differs across occupational groups. This study also extends research on the role of leadership in the negotiation of i-deals. Despite several calls for more research on how leaders shape i-deal negotiation processes (e.g. Liao et al., 2016; Meuser and Cao, 2022), empirical studies in this field remain scarce. Scrutinizing the role of transformational leadership in the success of i-deal negotiations contributes to what we know about one of the most consequential leadership styles in the 21st century (Siangchokyoo et al., 2020). Our results show that transformational leaders are effective in encouraging their employees to negotiate development i-deals and task i-deals.

From a practical perspective, the results of our study can sensitize leaders to pay more attention to the work context in which their behavior is to be effective. Due to the different contextual factors that not only employees but also leaders in different occupational groups are exposed to, such as the extent of job resources (Nielsen and Abildgaard, 2012), the influence of leadership on employee behavior may vary. Given our findings on the differences in the influence of transformational leadership on employees’ job crafting and i-deal negotiation depending on employees’ affiliation to an occupational group, leaders should be aware of the occupational group their employees belong to. With this in mind, they should define what goals they want to achieve in terms of proactive employee behavior through transformational leadership and examine whether this goal can be effectively achieved within this occupational group. For example, the finding of the non-significant relationship between transformational leadership and the job-crafting dimension of increasing structural job resources in blue-collar jobs indicates that leaders may use leadership approaches other than transformational leadership to encourage their blue-collar employees to change structural job resources. In terms of changing work structures, leadership approaches such as transactional leadership, which is characterized by a clear communication of instructions and expectations (Bass and Avolio, 1994), could be useful.
Furthermore, our study’s findings can guide organizations in how to approach job crafting and i-deals as forms of employees’ proactive behavior. Since both job crafting and i-deals are ways for employees to achieve a person-job fit and a more fulfilling and motivating work experience (e.g. Hornung et al., 2014; Vogel et al., 2016), thus reducing turnover (e.g. Rofcanin et al., 2016; Zhang and Li, 2020), organizations can benefit from supporting these forms of proactive behavior. The results of our study highlight that transformational leaders can positively influence employees' engagement in job crafting and i-deal negotiations. Transformational leadership is not innate but rather consists of behaviors that can be developed (Bass and Avolio, 1990). Accordingly, organizations can use leadership training, feedback, and coaching to encourage their leaders to engage in transformational leadership behaviors (e.g. Lacerenza et al., 2017).

Prior intervention studies have shown that leadership development programs (e.g. one- or two-day programs with subsequent feedback or coaching sessions) significantly contribute to advancing leadership skills with respect to transformational leadership behaviors (e.g. Cohrs et al., 2020; Kelloway et al., 2000) and are positively related to employee outcomes, including their commitment, development, and performance (e.g. Barling et al., 1996; Dvir et al., 2002). Above that, these leadership development programs can be a powerful tool to sensitize leaders to their important role in fostering employees’ proactive behavior. Since our study reveals that blue-collar employees perceive their leaders as less transformational than white-collar employees do, leaders of blue-collar employees, in particular, should seek and receive support in advancing their leadership skills.

With regard to job crafting, the most critical transformational leadership behaviors to support this form of proactive behavior are providing an autonomous work environment, fostering employees’ engagement by demonstrating a vision and conveying enthusiasm, modeling exemplary behavior, and challenging intellectually (Oprea et al., 2022). Leaders should act as coaches and mentors to help their employees meet their needs for achievement and growth (Hetland et al., 2018). With regard to i-deals, in addition to the aforementioned transformational leadership behaviors, leaders' individualized consideration is particularly important to encourage employees to initiate i-deal negotiations (Liao et al., 2016). Hence, by providing personalized support, leaders can enhance employees’ willingness to seek individualized arrangements with regard to their personal development (Karakitapoğlu-Aygün et al., 2023).

Limitations and directions for future research
Like all studies, this study is not without limitations. First, we used cross-sectional survey data, which does not allow us to draw conclusions regarding causality. Future longitudinal studies could contribute to validating our findings on transformational leadership’s relationships with job crafting and i-deals using, for example, diary studies to investigate the antecedents and outcomes of daily job crafting and i-deals (Demerouti et al., 2015; Hetland et al., 2018; Rofcanin et al., 2021).

Another limitation concerns the discriminant validity of job crafting and i-deals as constructs. Although the six-factor model that differentiates three job-crafting dimensions and two types of i-deals was the best-fitting structural model in this study, the strong correlation between the job-crafting dimension of increasing structural job resources and development i-deals ($r = 0.9, p < 0.001$) raises a question concerning whether the respondents understood them as separate constructs. As increasing structural job resources refers to developing capabilities and learning new things at work, it is reasonable that the understanding of this dimension coincides with the understanding of development i-deals. Employees may perceive the negotiation of development i-deals as part of their engagement in increasing structural job resources. As far as we know, only one other study empirically
investigates job crafting and i-deals in the same research context (Rofcanin et al., 2016), so more research on the constructs’ discriminant validity would be of value.

In addition, it has to be acknowledged that, due to the study’s focus on transformational leadership, the question of how other leadership styles, in particular those of the Full-Range-Leadership model (Avolio and Bass, 1991), influence job crafting and i-deals in blue- and white-collar jobs remains unanswered. Against the background that the results of this study revealed that blue-collar employees perceive their leaders as less transformational than white-collar employees do, it is an interesting approach for future research to investigate the prevalence of other leadership styles, especially transactional leadership, in blue- and white-collar jobs and to analyze how other leadership styles are related to employees’ proactive behavior. A comparison of different leadership styles’ effectiveness in fostering employees’ proactive behavior in different occupational groups allows for more nuanced insights and more specific practical guidance for organizations.

Generalizability is also an issue of concern. We conducted this study in the German craft industry and collected data mainly from small and medium-sized enterprises. Therefore, the representativeness of our sample is limited, and the results may differ in other contexts. For example, leaders’ psychological impact on employees may be stronger in smaller organizations than it may be in larger organizations, as leaders work more closely with employees than those in larger organizations do (Mesu et al., 2015). The results may also differ in other industries. For example, the structural conditions of blue-collar jobs in large manufacturing companies (e.g. shift work) differ from those of the blue-collar jobs we investigated in this study, which were largely characterized by fieldwork. Future studies should investigate the relationships addressed in this study in larger organizations and in other industries.

References


Personnel Review


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