Job crafting after making mistakes: can leadership be an obstacle?

Job crafting

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Abstract

Purpose — This study aims to explore how individual personal growth initiative (PGI) mediates the relationship between a positive error orientation and job crafting. Furthermore, it explores the moderating role of the feedback from the leader in this relationship.

Design/methodology/approach – Data was collected through a survey conducted on 209 international employees from multiple occupations.

Findings – A positive error orientation is indirectly related to job crafting through its relationship with PGI. Also, feedback from leadership has a negative effect on the relationship between a positive error orientation and PGI. Indeed, the mediation effect of PGI on the relationship between a positive error orientation and job crafting loses significance when the leadership feedback is high.

Practical implications – As far as job crafting is concerned, it is essential to develop an error management culture to promote proactive behaviors among individuals.

Originality/value — Although the literature tends to highlight the positive effects of receiving feedback from the leader on employee's professional development, this paper highlights the potential detrimental effects of leader feedback on PGI, therefore opening a new interesting area that demands attention.

Keywords Feedback, Job crafting, Error management, Personal growth initiative

Paper type Research paper

Introduction

Organizations are constantly confronted with errors while at the same time being under pressure to stay fit and adapt to the economic environment. Innovation, for example, is simply not possible without mistakes being made as the process of innovating involves acting in unfamiliar environments (Frese & Keith, 2015). Innovation and incremental improvement need not be applied solely to products or services, they can also be applied to an individual's engagement in behaviors aimed at changing one's job in idiosyncratic ways (i.e. job crafting). Despite the importance of previous studies on this matter, they do not clarify how an individual's attitude



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The Learning Organization Vol. 30 No. 4, 2023 pp. 465-479 Emerald Publishing Limited 0969-6474 DOI 10.1108/TLO-05-2022-0051 toward errors can influence job crafting, or the factors that mediate and influence this relationship. Our work addressed this gap, by looking into the relationship between a positive error orientation and job crafting, and we add to the literature by exploring the role of both personal growth initiative (PGI) and leader feedback in this relationship. It is important to consider how error orientation impacts job crafting for different reasons. First, error is an inalienable phenomenon in any organizations, and none is error-free. The fast pace and increasing complexity of today's organizations, makes them more prone to errors and mistakes. Simultaneously, individuals' soft skills are more and more valued by companies, Parallel to job and task-specific competences, skills such as resilience in the face of setbacks and errors, creativity to solve problems or proactivity to address relevant issues are many times what distinguishes workers in the war for employee talent. Hence, understanding how both can be linked, i.e. how error orientation influences job crafting, can inform companies about more effective approaches to deal with the inevitable errors, in what those competences are concerned. To the best of our knowledge, these variables have not vet received empirical attention. Furthermore, our theoretical framework is based on self-determination theory (SDT, Deci & Rvan, 2008; Rvan & Deci, 2000). Broadly speaking, SDT highlights that intrinsic motivation increases when individual's basic psychological needs, namely, competence, autonomy and relatedness, are met, which will create the conditions for proactive behaviors.

In this paper, we also explore two other variables as mediators and moderations of the main relationship above. Including these variables increases the complexity of the model, and also its ability to explore our phenomenon of interest in more detail, considering the process that explains the relationship between a positive error orientation and job crafting, and a contextual variable that can influence it. We chose two variables for different reasons. Personal growth initiative (PGI) is was included as it related to an individual-level variable that can explain the process by which a positive error orientation influences job crafting. A positive error orientation will increase individuals' perception of competence, as it allows for learning and development. Hence, it will foster the motivation to develop further and encourage a willingness to learn, which is conceptualized as PGI. Furthermore, PGI comprises skills (i.e. competences) and is considered to occur when individuals have enough autonomy to decide for themselves what, when and how to develop further. Thus, as PGI satisfies two basic psychological needs that may foster the motivation to engage in the process of cognitive, behavioral or affective change, it should, therefore, promote job crafting. The feedback from the leader is a team or organizational-level variable that can intrinsically motivate individuals to be proactive in engaging in self-improvement activities. More specifically, receiving feedback from the leader can build a sense of competence, as well as contribute toward developing autonomy and strengthening the relationship between leaders and followers.

The final model comprises, therefore, variables at different levels of theory, which result in different insights for organizations to derive actionable advice from. The existing knowledge about them and their relationships is described in the section below.

Theoretical background

Job crafting and positive error orientation

The process of self-initiated change that employees engage in to align their work with their personal preferences, motives and passions is called job crafting (Wrzesniewski & Dutton, 2001). It is important to note though, that job crafting is only about changing certain aspects at work, not redesigning one's job as a whole. Job crafting may appear in different forms, such as employees may change task-related aspects of their job (for example, altering the scope of work, lowering production numbers or focusing on other preferred tasks in general); they may alter certain relationships they have at work (for example, improving the quality of interaction, or choosing to interact less with people that cause them psychological

stress); or they may change cognitions about certain aspects, which is aimed at increasing the personal significance of one's work (Wrzesniewski & Dutton, 2001) (for example, fostering a new perception of one's job in terms of either seeing it as just a series of work tasks or seeing it as an integrated whole) Furthermore, an important part of job crafting is the perceived feeling of control, which again is an important antecedent for improved performance (Frese, 1987).

While crafting their jobs, it is likely that individuals will make mistakes and errors. For example, they might deliberately engage in networking with colleagues from a certain department and find that those individuals are unethical, or not concerned with the well-being of others. Or they might decide to reframe how they perceive an excessive workload by viewing it as a challenge and then fail to see that constant overwork will have a detrimental effect on their health and productivity. Hence, the way individuals deal with such errors can influence their ability to continue their job crafting endeavors. Error orientation is a personal disposition that refers precisely to the way individuals cope with and think about errors at work (Rybowiak, Garst, Frese, & Batinic, 1999). According to Lazarus and Folkman (1984), it can be conceptualized as a coping mechanism. For example, one way of coping with errors would be to cover them up, instead of openly communicating them or by seeking to stay calm in an erroneous situation to actively deal with it and learn from it.

Previous research has focused on how error orientation could influence task-related mistakes, such as quality noncompliance, or job-related problems (Lei, Naveh & Novikov, 2016; Frese & Keith, 2015). A positive error orientation, where errors are seen as an opportunity to learn and improve and not something to be ashamed of, in combination with the ability to reflect on one's errors and openly communicate them, was proven to have a positive influence on job performance (Frese & Zapf, 1994). Research individuals' reactions to errors have focused on its relationship to work engagement (Matsuo, 2019a, 2019b; Bipp & Demerouti, 2015; Maden, 2015; Chughtai & Buckley, 2011). Matsuo (2019b) found that learning goal orientation positively influences work engagement. Also, the work of Bipp and Demerouti (2015) found that learning goal orientation partially mediated the effects of work engagement on in-role job performance and innovative work behavior. Furthermore, job crafting was found to mediate the relationship between learning goal orientation and job crafting. Hence, when individuals perceive errors as opportunities to learn and develop, they are more willing to invest in job crafting, which supports the idea that a positive error orientation will also foster proactive job crafting behaviors.

This relationship can occur through different mechanisms. If a positive error orientation, by its definition, promotes learning, it consequently increases an individual's perception of competence. Competence is as a core psychological need that increases intrinsic motivation (Ryan & Deci, 2000). Consequently, individuals will feel more capable to proactively pursue developmental challenges because they believe they will be able to do so. A positive error orientation will promote a reflection upon mistakes, open discussions and learning. This will foster their perceived competence and, as a consequence, promote experimentation and crafting of certain work aspects as they will not fear potential mistakes. Hence:

H1. A positive error orientation is positively related to job crafting.

There are other factors, however, besides this direct relationship between a positive error orientation and job crafting that can explain the process by which this relationship occurs. Below, we focus on PGI as one of those factors.

Mediating role of personal growth initiative

PGI, is the "active, intentional engagement in the process of growth" (p. 184). It is an active concept, which entails aspects of proactive and self-starting behaviors (Frese & Fay, 2001),

and plays an essential part in an individual's development process, enabling people to cope more proactively with job difficulties, such as stressors or career changes (Frese & Fay, 2001). Because PGI entails autonomy and self-initiation, it is connected to intrinsically motivated action (Deci & Ryan, 1985).

PGI can be considered a set of skills for intentional change, such as readiness for change; planfulness, using resources (Robitschek & Hershberger, 2005). Individuals with a good development of these skills tend to report better psychological functioning (Chang & Yang, 2016), are better able to deal with and solve problems and have a sense of ability to control and impact their environment successfully (Hobfoll et al., 2003).

We expect PGI to mediate the relationship between error orientation and job crafting. First, we expect that a positive error orientation will also lead to an increased PGI. When individuals have a positive error orientation, they perceive failures as valuable for improving and learning. Therefore, they will be more willing to engage in intentional change and in experimenting using different resources and approaches to develop themselves, which is reflected in PGI (Frese & Fay, 2001). Second, because errors themselves can provide necessary information regarding the skills and knowledge that needs to be improved (Ivancic & Hesketh, 1995), they are an essential part of the personal development process. By being open to learn from errors, individuals will put themselves in the position to err more often, hence increasing the potential developmental feedback they can provide. This feedback can then leverage their PGI.

Next, PGI will encourage individuals to actively craft their work environment (Battistelli, Odoardi, Vandenberghe, Di Napoli, & Piccione, 2019), because it entails proactive behavior, which is at the core of job crafting as well. For example, Kulik, Oldham, and Hackman ((1987) suggest that the redesign of one's own job does not necessarily need management involvement, but rather happens on the basis of personal initiative. Thus, one of the central antecedents for job crafting is the personally initiated alteration of job characteristics and general proactive working behaviors (Tims, Bakker & Derks, 2012), here operationalized as PGI.

In short, a positive error orientation will most certainly influence the proactivity of employees (Frese & Fay, 2001) and enhance experimentation and PGI (Van Dyck, Baer, Frese & Sonnentag, 2005). This happens because a positive error orientation can satisfy the psychological needs of competence and autonomy, fostering intrinsic motivation (Ryan & Deci, 2002) and, consequently, proactivity and PGI (Rybowiak et al., 1999). At the same time, PGI plays an central role in job crafting behaviors, because individuals need to engage in voluntary and active change behavior to develop professionally and to craft their jobs (Battistelli, Odoardi, Vandenberghe, Di Napoli, & Piccione, 2019; Petrou, Demerouti, Peters, Schaufeli & Hetland, 2012). Based on these arguments, we propose the following hypothesis:

H2. Personal growth initiative mediates the positive effect of a positive error orientation on job crafting.

Role of feedback from leadership

Leaders can greatly influence the behavior, attitudes and overall performance of their subordinates. Based on a taxonomic approach, Morgeson, DeRue, and Karam ((2010) developed 15 key leadership functions, including the provision of feedback, defined as offering direct and clear information about effectiveness and work outcomes (Kanten, 2014). Supervisor feedback is a source of relevant information for employees that allows them to improve work methods (Zhou, 2003) and to work more autonomously as they become more competent in their tasks. Leaders, however, can use feedback not only to correct task-related

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Providing one's subordinates with regular feedback acts as input to the mechanisms that direct and control behavior (Bandura, 1986). Behavior regulation, in turn, is necessarily related to correcting a course of action when errors are found. Providing feedback allows individuals and teams to assess both their past and current actions and to adapt if needed to assure future success (Morgeson et al., 2010). Indeed, feedback allows individuals to compare actual outcomes with explicit standards of performance and consequently identify and correct errors (Shea & Howell, 1999).

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As stated in the previous section, we expect that when individuals have a positive error orientation, they will also be more likely to display PGI skills and behaviors. Adding to this, PGI will be even more developed when leaders are also able to provide feedback on individual behavior. This feedback will help individuals in understanding potential problems, reflect upon them, identifying areas for personal growth and improvement. Therefore:

H3. Leadership feedback increases the positive effect of a positive error orientation on personal growth initiative.

The overall theoretical model presented in Figure 1. Preacher, Rucker, and Hayes (2007) identified models configured thus as moderated mediation models. They also indicate that individual testing of the paths in H1 to H3, would be insufficient to establish moderated mediation effects. Therefore, there is a final hypothesis that specifies the moderated mediation effects presented in the research model:

H4. Leadership feedback moderates the indirect effect of a positive error orientation on job crafting through personal growth initiative, and this indirect effect will be more positive when leader feedback is high than when it is low.

Methodology

Sample and procedure

For data collection, an online questionnaire was developed and shared using Qualtrics®, one of the leading international experience management tools. The questionnaire was constructed in English, and we used a convenience sample by reaching out to professional contacts and by sharing the link to the survey on social media (i.e. LinkedIn, Facebook).

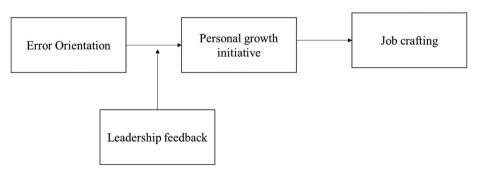


Figure 1. Research model – moderated mediation

Source: Authors' own work

Data collection took place during four months (mid-October to mid-February), and no reminders were sent to potential participants directly; instead, they were made in the distribution channels (i.e. social media used) every two to three weeks. The criteria for participating in the study was being over 18 years old, employed and working for at least 1 year, as the target population were general working individuals, without specific activity areas

In total, 209 people from 35 different countries participated in this research. Table 1 summarizes the sample characteristics.

Instruments

Positive error orientation was measured using the Error Orientation Questionnaire (Rybowiak et al., 1999), which comprises 37 items. Participants were asked specifically to think about their current workplace and say how errors and mistakes are being handled (ex. "I feel embarrassed, when I make an error") by choosing the best fitting answer from a five-level Likert scale ("does not apply at all" to "totally applies") (Cronbach's $\alpha = 0.80$).

PGI was measured by adapting the nine items of the PGI scale (Robitschek, 1998) from a life in general context to a work (ex. "I have a good sense of where I am headed at work"). The participants were then able to choose their answer from "Definitely agree" to "Definitely disagree" (Cronbach's $\alpha = 0.83$).

Job crafting was assessed using the 21 items of the job crafting scale (in a five-point Likert scale from "Never" to "Often") with four sub-scales, namely:

- (1) increasing social job resources ("I ask my supervisor to coach me");
- (2) increasing structural job resources ("I try to develop my capabilities");
- (3) increasing challenging job demands ("I try to make my work more challenging by examining the underlying relationships between aspects of my job"); and
- (4) decreasing hindering job demands ("I try to ensure that my work is emotionally less intense") (Cronbach's $\alpha = 0.83$).

Leadership feedback was measured using the sub-scale of the Team Leadership Questionnaire (Morgeson et al., 2010), with four items (ex. "Rewards the performance of team members according to performance standards"). Participants answered on a five-point Likert scale, and Cronbach's α was 0.84.

Gender (male/female/other/prefer not to answer) and age were used as control variables in all of the models tested. Due to the great diversity of countries included in the study, we performed a Levene's homogeneity of variance test based on the median (recommended for non-normal data distributions) with "country" as the factor variable. The values show no sample bias for job crafting (p = 0.6), error orientation (p = 0.78), PGI (p = 0.30) or leader's feedback (p = 0.52).

Results

The PROCESS Macro by Preacher and Hayes (2004) was also used to test the hypotheses. Therefore, model 4 was considered to test H1 and H2, model 1 for testing H3 and model 7 to test for the moderated mediation (H4) (Hayes, 2013). All analysis were made with 5000 bootstrap samples, which requires fewer assumptions such as normality of the distribution and yields the highest statistical power (Hayes, 2013; MacKinnon et al., 2002; MacKinnon et al., 2004).

Gender	%	Job crafting
Male Female Other	62.2 37.8 0	
Age 20-30 31-40 41-50 51-60 > 60	46.6 33 9 9.5 1.5	471
Country Germany Italy Poland The Netherlands Other	62 7.7 3.8 3.3 23.2	
Highest educational degree Master Bachelor High school or lower PhD	52.2 34.9 10.1 2.9	
Tenure in present company <1 year 1-3 years 4-6 years 7-10 years >10 years	26.8 46.9 12.4 6.2 7.7	
Size of the company 1–10 11–50 51–200 200–500 501–1,000 1,001–5,000 5,001–10,000 >10,000	5.7 26.3 21.1 9.6 7.2 6.7 4.3 17.2	
Type of industry IT and tech HR, recruiting and consulting Banking and FinTech E-commerce and retail Other Source: Authors' own work	15.79 9 7 7 61.21	Table 1. Sample characteristics

Descriptive statistics and correlations between the study's variables as well as between demographic ones, are displayed in Table 2.

The results of the simple mediation show support for H1 and H2. The findings revealed that error orientation significantly predicts job crafting both directly (b = 0.45, 95%CI: 0.27;0.62) and indirectly, via PGI (b = 0.20, 95%CI: 0.12; 0.31), therefore supporting H1 and H2, respectively.

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The results of the moderation analysis to test H3 can be seen in Table 3.

The interaction term shows statistical significance (b = -0.24; 95%: -0.46; -0.04), indicating that the leadership function of providing feedback is a significant moderator of the effect of error orientation on PGI. More specifically, when feedback is low (-1SD) or medium (0), the moderation effect is significant (b = 0.68; 95%: 0.41; 0.94 and b = 0.43; 95%: 0.22; 0.65, respectively. When feedback is high (+1SD), the effect becomes non-significant (b = 0.23; 95%: -0.07; 0.53). Considering these results, we used Johnson–Neyman's technique to identify the cut-off point of leader feedback, i.e. at what level of feedback individuals high and low in error orientation differ in PGI, and where the effect of error orientation on PGI becomes nonsignificant (4.43, p = 0.05). Figure 2 depicts the interaction and the Johnson–Neyman significance regions (to the left of the vertical full line, the significant region, to the right the nonsignificant one).

As we can see from the graph and the reported values, high values of leader feedback weaken the positive relationship between error orientation and PGI.

As for hypothesis H4, the index of moderated mediation shows significance (b = -0.09, 95%CI: -0.16; -0.01), meaning that the leadership function of providing feedback significantly moderates the indirect effect of error orientation on job crafting through PGI. Overall, the positive indirect effect of error orientation on job crafting through PGI is weakened when feedback is high (+1SD), becoming non-significant (b = 0.08; 95%: -0.02; 0.19). In situations where the leadership function of providing feedback is low (-1SD) or medium (0): (b = 0.23; 95%: 0.13; 0.34 and b = 0.16; 95%: 0.08; 0.24, respectively), leader feedback has a positive effect on the said relationship.

Table 4 present a summary of the hypotheses and results.

Variable	M	SD	1	2	3	4	5
1. Error orientation	3.3	0.36	0.00**				
2. PGI	4.8	0.65	0.30** 0.45**	0.45**			
3. Job crafting 4. Leader feedback	3.4 3.7	0.53 0.86	0.45**	0.45** 0.34**	0.40**		
5. Gender	3. <i>1</i> –	0.00	0.10	-0.12	0.40	-0.06	
6. Age	34.5	10.07	-0.04	0.30**	-0.10	-10	-24**

Table 2.Descriptive statistics and Pearson and Spearman's correlations

Notes: **Correlation is significant at the level of 0.01; *correlation is significant at the level of 0.05; N = 209; Gender: 1 = male, 2 = female, 3 = other

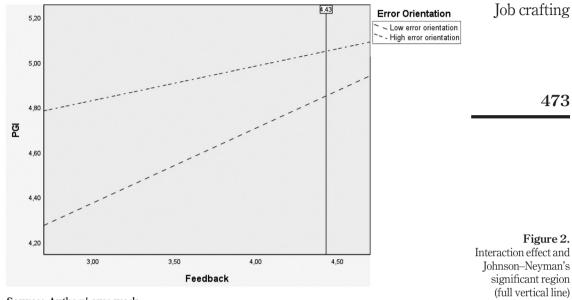
Source: Authors' own work

Predictor variable	В	SE	t	Þ	LLCI	ULCI
Error orientation	0.46	0.11	4.24	0.000	0.24 0.15 -0.46 0.01 -0.21	0.66
Leader feedback	0.24	0.05	5.38	0.000		0.33
Interaction	-0.24	0.11	-2.36	0.019		-0.04
Age	0.02	0.00	5.38	0.000		0.03
Gender	-0.05	0.08	-0.57	0.568		0.11

Table 3. Results of moderation analysis (*H3*)

Notes: LL = lower limit; CI = confidence interval; UL = upper limit. All predictor variables were mean-centered

Source: Authors' own work



Source: Authors' own work

Source: Authors' own work

Discussion

The overall goal of this research was to identify the effect of a positive error orientation on job crafting, through PGI. Furthermore, it was intended to address whether leadership feedback could positively influence this effect. The direct and indirect effects (H1 and H2, respectively) have been supported, but the moderation effect of leader feedback was found to be contrary to what was expected (i.e. the higher the feedback the weaker the positive relationship between error orientation and PGI).

Theoretically, according to a resources-based job crafting conceptualization, individuals can engage in two major types of job crafting, promotion-focused (i.e. increasing resources and/or challenging job demands) and prevention- focused (i.e. attempts to decrease hindering demands) (Demerouti et al., 2015). A positive error orientation builds on an

Hypothesis	Results
H1. A positive error orientation is positively related to job crafting	Supported
<i>H2.</i> Personal growth initiative mediates the positive effect of a positive error orientation on job crafting	Supported
H3. Leadership feedback increases the positive effect of a positive error orientation on personal growth initiative H4. Leadership feedback moderates the indirect effect of a positive error orientation on job crafting through personal growth initiative, and this indirect effect will be more positive when leader feedback is high than when it is low	Non-supported (significant moderation, but in the opposite direction than expected) Non-supported (significant moderation, but in the opposite direction than expected)

Table 4. Summary of study's hypotheses and results

individual's capacity to focus on work-related gains and to deal with non-gains proactively and not defensively. Hence, a positive error orientation may work as a protective factor that prevents individuals from engaging in prevention-focused job crafting to avoid potentially strenuous job characteristics or to make sure their needs are not frustrated. Contrastingly, a disposition to perceive losses and errors as potential learning opportunities can foster motivation to work toward satisfying their needs and not just ensure they will not be frustrated.

Our results may, therefore, add to what is known about promotion-focused job crafting by highlighting two potential individual antecedents. Indeed, the self-regulation strategies to engage in promotion-focused job crafting are related to an individual's growth and development needs and not on safety or security needs. When individuals express high levels of PGI, they are determined to improve themselves, to progress and thrive. Hence, they will be more likely to engage in expansion-oriented tasks, relational and cognitive crafting and pursuing an approach to positive end-states (Higgins, 1997), as they anticipate the pleasure to be derived from learning and growth (Lichtenthaler & Fischbach, 2019).

Furthermore, it can also be said that leadership feedback had a significant effect on the relationship between a positive error orientation and PGI. However, and against expectations, the effect it had was a negative one. Thus, when leader feedback increases and is especially high, the effect of error orientation on PGI decreases.

One simple methodological possibility to justify the decrease in the effect might be the fact that the leadership functions defined by Morgeson *et al.* ((2010) and referred to in this study, were designed within the context of team effectiveness. Therefore, these are behaviors that are directed at a group, while error orientation, PGI as well as job crafting are all individual actions. If a leader's behavior is focused on a whole team, error practices focusing on individual behavior might be less conspicuous to employees.

Another, and more conceptually interesting, possibility to explain the decrease could be that it is a compensation effect. When feedback is completely assured either by a formal leader or by someone close to the individual, the individual level of error orientation might become less important for the personal development of employees. For example, it has been shown by Birdi, Allan, and Warr ((1997) that perceived management support was positively related to self-reported voluntary activities in further job-related learning and development. This might imply that leadership functions have the chance to compensate for a lack of error orientation among their employees and thus, still promote work-related personal development. Receiving feedback is an essential part of an individual's learning process and, moreover, also promotes proactive self-management and the initiation of their own development (Deci, Connell & Ryan, 1989). If individuals are given constructive and regular feedback, it will help them understand and reflect on erroneous situations and lead to improvement, despite their general level of error orientation. Therefore, if continuous feedback is provided, it can support the personal development of employees while compensating for a negative attitude toward errors or error management practice.

Theoretically, self-leadership theory (Manz, 1986) could be considered in the future as an organizing framework for understanding self-directed behavior at work aimed at personal development and idiosyncratic change. Indeed, being focused on leading oneself toward improved performance even in tasks that are not necessarily motivating *per se*, speaks to the individual's attempt to both craft their job and develop skills that boost motivation. This proposal considers strategies for regulating one's behavior, such as: behavior focused strategies of self-management (for example, self-observation, self-criticism) that are closely related to positive error orientation and situational appraisal prior to change, and to the drive to change and grow; self-leadership also considers the fostering of positive affect by

engaging in natural rewards, which can be a byproduct of job crafting (because the change made to one's job can bring increased well-being, effectiveness or social connections); and finally, constructive thought strategies, by which individuals may influence their cognitions to induce thoughts that can pave the way for shaping a positive error orientation. Focusing on self-leadership can also have the advantage of rendering feedback from the (formal) leader less relevant, hence minimizing the potential detrimental effects found in PGI. Indeed, and going back to the resources-focused perspective on job crafting (Lichtenthaler & Fischbach, 2019), we can also argue that providing feedback can help individuals self-regulate as it becomes a source of security and safety. Having another person guiding and correcting one's activities and behaviors, when one has a positive mindset toward errors, can prevent individuals from proactively engaging in self-development as that other person has taken on that role. In sum, this theoretical framework could be further explored to encompass the constructs of job crafting, PGI at work and error orientation.

In addition to that, it should be taken into account that the sample age group was rather young, with an average age slightly below 35 years and almost one quarter of the sample saying they are a junior employee or young professional. Younger people might be more prone to erroneous situations in general as they are only at the beginning of their career, especially if they are engaging in many tasks for the first time. Because their learning curve is usually steeper than that of employees with more experience, there could also be other factors such as leadership interest that could influence their development, regardless of whether there is a general organizational openness toward errors, and despite their own individual error orientation.

In sum, our results contribute to the literature on job crafting by highlighting two potential individual dispositions that influence promotion-focused job crafting, and by exploring how external leadership can disrupt the process.

Practical implications

As both error orientation and PGI are dispositional variables (i.e. they relate to the individual's temperament and personality), they are difficult to directly be changed or trained. Hence, the organizations' role in facilitating a positive error orientation and PGI is promoting a safe environment for individuals, fostering experimentation and learning from mistakes, i.e. an error management culture. This can then be relevant for having employees able to craft their jobs, as showed by our data.

To develop an error management culture (Van Dyck, 2000; Van Dyck et al., 2005), managers and leaders have a pivotal role. They can shape routines, the way people talk to each other, or anything else that directly addresses the emotions of the individuals. For example, regular "failure parties" or "failure meetings" that allow safe and open communication, as well as reflection upon the erroneous situation and its antecedents can be implemented. Also, taking smaller actions could be helpful, such as having brief failure feedbacks each day, keeping team error diaries or affixing simple posters with quotes to the wall that encourage employees to report errors that have been made. To foster such ideas, it might also be necessary to hold group communication training sessions, write error protocols or implement an error-buddy system to remind and observe each other. It is important for a leader to act as a role model by openly communicating their own errors and failures and by discussing and encouraging others to acknowledge their mistakes.

From another perspective, and considering our results on the potential detrimental effect of leadership feedback on the relationship between a positive error orientation and PGI, leaders should also refrain from providing "too much" feedback to individuals who demonstrate a positive error orientation allowing individuals to reflect upon their mistakes and proactively decide where to invest effort for personal development. In these situations, becoming a less intervenient, yet available leader, may be a useful position. This can be achieved by asking reflective questions rather than providing directive feedback or asking individuals to come up with novel solutions.

Limitations and future research

First of all, the research follows a cross-sectional design with a convenience limited sample which limits the collected data to self-reports conducted during a single moment in time. For future research, it would be interesting to test whether employees' attitudes and perceptions change over time or whether they stabilize.

Furthermore, only one out of fifteen leadership functions was chosen for this research. This leaves many interesting ideas for future research to be carried out on the remaining ones as they play a relevant role in this model, especially when it comes to the organizational level. Some examples of the remaining leadership functions are establishing expectations and goals, sense-making, solving problems and monitoring the team. However, taking into account the difference between the leadership functions being directed to the group level. while other variables are focused on the individual, it would also make sense to measure dependent variables also on a team level. This would present a better picture of a team's perceptions of their working environment. Additionally, focusing on leadership styles, leadership personality traits, the *locus* of leadership or general leadership behavior might also shed light on how supervisors may impact the individual work-related personal development of their team members. Involving executives in this study will be of even greater importance when moving to the organizational culture level, specifically error management culture. Leadership behavior and organizational culture are closely connected, as leaders are the ones that set out their company's mission and goal, choose who will join the team and who will not and lead by example. This being so, they have a huge influence on how a certain culture evolves within the organizational context (Schein, 1990).

Going beyond that, future studies might even consider differences in national cultures as well. Work has never been more global than it is today and the number of internationally operating companies is increasing fast, while worldwide migration rises. Therefore, understanding cross-cultural differences with regard to how errors are being approached and dealt with among employees and how it may affect their work-related personal development may become a very present-day topic. More specifically, national culture dimensions (Hofstede, 2001) such as power distance or uncertainty avoidance can be considered as impacting the variables we studied. In societies high in power distance, where individuals accept and expect that power is unevenly distributed, individual growth initiative can be buffered by the need to follow the directions set by the hierarchy. In societies high in uncertainty avoidance, individuals tend to feel less comfortable with uncertainty, therefore less likely to engage in experimenting, innovating, changing and job crafting.

The contribution we make with this study is three-fold. First, focusing on variables related to individual proactivity, we explored how a positive attitude toward error contributes to the ability of employees to change their working conditions to increase work motivation and, ultimately, their effectiveness. Second, while previous literature has already highlighted the importance of PGI, the focus has been more on its relationship to organizational outcomes, such as productivity (for example, Thapa & Singh, 2020). Hence, we also explore the role of this personal development construct in the relationship between error orientation and job crafting. Third we delved into the role that leadership feedback plays in this relationship, exploring its potential in a moderated mediation model.

Understanding how leaders contribute toward increasing or mitigating the strength of individual error orientation with regard to change and learning attitudes and behaviors, to provide both scholars and practitioners with evidence that can be transferred to workplace practices.

Given the fact that errors will never fully disappear from occupational lives, a work environment in which it is possible to profit and learn from mistakes and collectively avoid making the same ones in the future becomes an essential management topic. Hopefully, other researchers will be motivated to pursue further research on this topic.

References

- Bandura, A. (1986). Social foundations of thoughts and action, NJ: Englewood Cliffs.
- Battistelli, A., Odoardi, C., Vandenberghe, C., Di Napoli, G., & Piccione, L. (2019). Information sharing and innovative work behavior: The role of work-based learning, challenging tasks, and organizational commitment. *Human Resource Development Quarterly*, 30(3), 361–381, doi: 10.1002/hrdq.21344.
- Bipp, T., & Demerouti, E. (2015). Which employees craft their jobs and how? Basic dimensions of personality and employees' job crafting behaviour. *Journal of Occupational and Organizational Psychology*, 88(4), 631–655, doi: 10.1111/joop.12089.
- Birdi, K., Allan, C., & Warr, P. (1997). Correlates and perceived outcomes of four types of employee development activity. *Journal of Applied Psychology*, 82(6), 845–857, doi: 10.1037/0021-9010.82.6.845.
- Chang, E. C., & Yang, H. (2016). Personal and family growth initiative as predictors of study engagement in chinese and American college students: Is there any evidence for group differences? Personality and Individual Differences, 102, 186–189, doi: 10.1016/j.paid.2016.07.004.
- Chughtai, A. A., & Buckley, F. (2011). Work engagement: Antecedents, the mediating role of learning goal orientation and job performance. Career Development International, 16(7), 684–705, doi: 10.1108/13620431111187290.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*, New York, NY: Springer Science + Business Media, doi: 10.1007/978-1-4899-2271-7
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne*, 49(3), 182–185, doi: 10.1037/a0012801.
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74(4), 580–590, doi: 10.1037/0021-9010.74.4.580.
- Demerouti, E., Bakker, A.B., & Gevers, J.M. (2015). Job crafting and extra-role behavior: The role of work engagement and flourishing. *Journal of Vocational Behavior*, 91, 87–96, doi: 10.1016/j. ivb.2015.09.001.
- Frese, M. (1987). A theory of control and complexity: Implications for software design and integration of computer systems into the workpalce., in Frese, M., Ulich, E., Dzida, W., (Eds), Psychological issues of human computer interaction in the work place, North-Holland Publishing Co., Amsterdam, The Netherlands, 313–337.
- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. in Triandis, M.C., Dunnette, M.C., & Hough, L.M. (Eds), *Handbook of Industrial and Organizational Psychology*, 4(2), Consulting Psychology Press, Palo Alto, CA, 271–340.
- Frese, M., & Fay, D. (2001). 4. Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior*, 23, 133–187, doi: 10.1016/S0191-3085(01)23005-6.
- Frese, M., & Keith, N. (2015). Action errors, error management, and learning in organizations. *Annual Review of Psychology*, 66(1), 661–687, doi: 10.1146/annurev-psych-010814-015205.

- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach, Guilford Press, New York.
- Higgins, E. T. (1997). Beyond pleasure and pain. American Psychologist, 52(12), 1280–1300, doi: 10.1037/0003-066X.52.12.1280.
- Hobfoll, S.E., Johnson, R.J., Ennis, N., & Jackson, A.P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632–643, doi: 10.1037/0022-3514.84.3.632.
- Hofstede, G. (2001). Culture's consequences, 2nd ed., Sage Publications.
- Ivancic, K., & Hesketh, B. (1995). Making the best of errors during training. Training Research Journal, 1, 103–125.
- Kanten, P. (2014). The antecedents of job crafting: Perceived organizational support, job characteristics and self-efficacy. European Journal of Business and Social Sciences, 3(5), 113–128, doi: 10.1146/annurev-psych-010814-015205.
- Kulik, C. T., Oldham, G. R., & Hackman, J. R. (1987). Work design as an approach to personenvironment fit. *Journal of Vocational Behavior*, 31(3), 278–296, doi: 10.1016/0001-8791(87) 90044-3.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping, Springer publishing company, New York.
- Lei, Z., Naveh, E., & Novikov, Z. (2016). Errors in organizations an integrative review via level of analysis, temporal dynamism, and priority lenses. *Journal of Management*, 42(5), 1315–1343, doi: 10.1177/0149206316633745.
- Lichtenthaler, P. W., & Fischbach, A. (2019). A meta-analysis on promotion- and prevention-focused job crafting. European Journal of Work and Organizational Psychology, 28(1), 30–50, doi: 10.1080/ 1359432X.2018.1527767.
- MacKinnon, D.P., Lockwood, C.M., Hoffman, J.M., West, S.G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83–104, doi: 10.1037/1082-989X.7.1.83.
- MacKinnon, D.P., Lockwood, C.M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39(1), 99–128, doi: 10.1207/s15327906mbr3901_4.
- Maden, C. (2015). Linking high involvement human resource practices to employee proactivity: The role of work engagement and learning goal orientation. *Personnel Review*, 44(5), 720–738, doi: 10.1108/PR-01-2014-0030.
- Manz, C.C. (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. Academy of Management Review, 11(3), 585–600, doi: 10.2307/258312.
- Matsuo, M. (2019a). Empowerment through self-improvement skills: The role of learning goals and personal growth initiative. *Journal of Vocational Behavior*, 115, 103311, doi: 10.1016/j. jvb.2019.05.008.
- Matsuo, M. (2019b). Effect of learning goal orientation on work engagement through job crafting: A moderated mediation approach. Personnel Review, 48(1), 220–233, doi: 10.1108/PR-11-2017-0346.
- Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, 36(1), 5–39, doi: 10.1177/0149206309347376.
- Park, S., & Park, S. (2021). Contextual antecedents of job crafting: Review and future research agenda. European Journal of Training and Development, 47(1/2), 141–165, doi: 10.1108/EJTD-06-2021-0071.
- Petrou, P., Demerouti, E., Peters, 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(8), 1120–1141, doi: 10.1002/job.1783.

- Preacher, K.J., & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. Behavior Research Methods, Instruments, & Computers, 36, 717–721, doi: 10.3758/BF03206553.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185–227, doi: 10.1080/00273170701341316.
- Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Development*, 30(4), 183–198, doi: 10.1080/07481756.1998.12068941.
- Robitschek, C., & Hershberger, A. R. (2005). Predicting expectations about counseling: Psychological factors and gender implications. *Journal of Counseling & Development*, 83(4), 457–469, doi: 10.1002/j.1556-6678.2005.tb00367.x.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78, doi: 10.1037/0003-066X.55.1.68.
- Rybowiak, V., Garst, H., Frese, M., & Batinic, B. (1999). Error orientation questionnaire (EOQ): Reliability, validity, and different language equivalence. *Journal of Organizational Behavior*, 20(4), 527–547, doi: 10.1002/(SICI)1099-1379(199907)20:4<527::AID-JOB886>3.0.CO;2-G.
- Shea, C. M., & Howell, J. M. (1999). Charismatic leadership and task feedback: A laboratory study of their effects on self-efficacy and task performance. The Leadership Quarterly, 10(3), 375–396, doi: 10.1016/S1048-9843(99)00020-X.
- Schein, E. (1990). Organizational culture. American Psychologist, 45(2), 109–119, doi: 10.1037/0003-066X.45.2.109.
- Thapa, A., & Singh, G. (2020). Resilience, Personal Growth Initiative and Employees Productivity at Workplace, e-journal First Pan IIT International Management Conference 2018.
- Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, 80(1), 173–186, doi: 10.1016/j.jvb.2011.05.009.
- Van Dyck, C. (2000). Putting errors to good use: Error management culture in organizations, KLI, Amsterdam.
- Van Dyck, C., Baer, M., Frese, M., & Sonnentag, S. (2005). Organizational error management culture and its impact on performance: A two-study replication. *Journal of Applied Psychology*, 90(6), 1228–1240, doi: 10.1037/0021-9010.90.6.1228.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *The Academy of Management Review*, 26(2), 179–201.
- Zhou, J. (2003). When the presence of creative coworkers is related to creativity: role of supervisor close monitoring, developmental feedback, and creative personality. *Journal of Applied Psychology*, 88(3), 413–422, doi: 10.1037/0021-9010.88.3.413.

Further reading

Hayes, A. F., & Preacher, K. J. (2012). SPSS MEDIATE macro syntax reference. Lievegoed, B. C. (1980). *The developing organisation*, Celestial Arts, Millbrae, CA.

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