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EDITORIAL

Addressing Well-Being in a Changing Workforce

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The topic of well-being in the workplace has gain significant attention from researchers and organizations due to its impact on workforce productivity and the costs associated with managing mental health challenges. In recent years, the body of literature on this topic has expanded considerably, emphasizing the effects of evolving workforce dynamics following the COVID-19 pandemic. Key changes in what is called the ‘post-pandemic workforce’ (Wang et al., 2023) include increased remote work, flexible work arrangements, and virtual team collaboration, business disruption and operational changes (Khor et al., 2023). Additionally, growing uncertainty, coupled with the increasing integration of artificial intelligence and automation across industries, has reshaped work environments at almost every level (Wang et al., 2023).

Scholars consistently highlight the negative consequences these changes have on employee well-being. These include feelings of job insecurity, social isolation, stress and anxiety, as well as emotional exhaustion (Wang et al., 2023). Furthermore, findings from large-scale global surveys bring out that employees across the world report experiencing these consequences, suggesting that the impact of these new organizational policies and work arrangements is widespread.

According to the Gallup 2024 Report - *State of the Global Workplace*, 20% of the world’s employees experience daily loneliness, equating to 1 in 5 employees. The prevalence of loneliness is slightly higher

(22%) among workers under 35 years old and increases further (25%) for individuals who work exclusively from home. In contrast, only 16% of those who never work from home report experiencing significant loneliness at work on the day prior to the survey (Gallup, 2024). Workplace loneliness comes from feelings of isolation and lack of meaningful relationships with colleagues and/ or supervisors.

Another concerning result is the decline in young employees’ (<35 years old) well-being in 2023 compared to 2022 (Gallup, 2024). This decline, measured through life evaluations, daily negative emotions, burnout, and perceived organizational support, underscores the need for targeted interventions. Employees who are actively disengaged from their work report significantly higher daily negative experiences - including stress (54%), anger (32%), and worry (52%) -compared to those actively engaged. Interestingly, these percentages are even higher than those reported by the unemployed (Gallup, 2024).

The Gallup study also highlights that unemployment exacerbates loneliness, with 32% of unemployed adults reporting frequent loneliness compared to 20% of those employed. This finding suggests that work can have a positive impact on well-being, but this benefit diminishes if individuals experience loneliness in the workplace.

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Loneliness in the workplace

Discussions about the effects of loneliness often refer to a seminal study by Berkman and Syme (1979). A nine-year follow-up study examined mortality rates across age and gender groups, focusing on four key types of social connections: marriage, contact with close friends and relatives, church membership, and group membership (both formal and informal). Men who were unmarried, those who reported fewer contacts with relatives, or weren't church members showed significantly higher mortality rates. Among women, the married ones didn't have significantly lower rates of mortality than married ones. However, women with frequent contact with relatives, church membership, or participation in group activities exhibited notably lower mortality rates compared to those with lower social connections (Berkman & Syme, 1979).

More recent studies support these findings, consistently linking loneliness to both mental and physical health challenges. Loneliness has been associated with increased risk of cardiovascular disease (Paul et al., 2021), elevated mortality risk (Henriksen et al., 2019), immune dysfunction, and metabolic syndromes (Hawkey, 2022). Meta-analyses demonstrate that loneliness exerts moderate to strong effects on depression, anxiety, suicidality, and overall mental health and well-being (Park et al., 2020). Studies investigating loneliness in the workplace further indicate that loneliness correlates with lower job performance and satisfaction, poorer quality of work relationships (Bryan et al., 2023), increased stress and burnout, and reduced general well-being (Bryan et al., 2023).

Loneliness consistently and negatively influences job satisfaction among employees. In a national representative longitudinal sample of Dutch employees investigated each year for a period of nine years, Lowman and colleague (2023) found that the effect of loneliness on job satisfaction remains over time, suggesting that loneliness can be a permeating force with a detrimental influence on how employees perceive their job and, consequently, engage with their work.

Given the critical impact of loneliness, organizational intervention should focus on fostering an environment that facilitate connections, collaboration and support among members. Managers seem to play an important role in any well-being intervention. Scholars indicates that managers who promote open communication and actively support their teams help create a sense of psychological safety, which reduces feelings of isolation (Edmondson, 2018). Managerial practices such as regular check-ins, empathetic listening, and recognizing employees' efforts contribute to enhanced feelings of connection and belonging. Additionally, leaders who model vulnerability by admitting mistakes and inviting feedback foster a culture of trust and inclusivity, Edmondson (2018) state.

To sustain even further the importance of managers' behaviours, studies suggest that poor management practices can exacerbate loneliness and dissatisfaction. Lack of managerial support has been linked to high rates of burnout, reduced motivation, and lower workplace cohesion (Kossek et al., 2021). For remote or hybrid teams, managers can address loneliness by using technology to facilitate and to maintain team interactions, such as holding regular virtual team events, and promoting informal social interactions (e.g., virtual coffee chats) (Wang et al., 2021).

Engagement and psychological climate as moderators of workplace well-being

Research also highlights the importance of managerial engagement in promoting organizational well-being. Work engagement is defined as the energy, dedication, and involvement employees invest in their work (Schaufeli & Bakker, 2004), and it has been positively associated with job satisfaction, organizational commitment, organizational citizenship behaviour and even productivity (Schaufeli & Bakker, 2004). The Gallup Report (2024) show that when managers are engaged is more likely that employees will also be engaged, with a correlation of $r = .58$ (calculated at country-level). This finding

suggests that the role of managers in driving employee engagement and well-being, especially considering the evolving dynamics of today's workforce. Some authors argue that the managers account for approximately 70% of team engagement (Clifton, & Harter, 2019), emphasizing that managerial influence can outweigh other antecedents, such as job characteristics, in determining employee engagement.

Although the concept of a "culture of engagement" (Shuck & Reio, 2013) has been overlooked in research, recent literature emphasizes that employee well-being in the workplace can be nurtured through supportive leadership, coupled with reasonable job demands, and organizational policies that promote work-life balance (Monteiro & Joseph, 2023). These findings align with the growing recognition of the manager's role in shaping not only employee engagement but also overall organizational health and culture.

Further exploration into interventions designed to enhance employee well-being reveals a variety of organizational strategies. Quigley et al. (2022) categorized these interventions into several types, including health promotion programs, physical activity interventions, leadership support programs, flexible working arrangements, emotional well-being initiatives, or participatory interventions. Their study demonstrates that interventions aimed at improving well-being through manager support lead to greater employee satisfaction and a decrease in emotional exhaustion. However, these positive outcomes are often mediated by changes in the workplace culture (Quigley et al., 2022). Specifically, support from supervisors, relevant and constructive feedback from managers, policies that promote work-life balance, and justice of managerial practices appear to be key drivers of employee well-being, all these factors being closely linked to the psychological climate within the workplace. In conclusion, managerial engagement is a central pillar in fostering a culture of well-being and in creating a supportive organizational environment that encourages work-life balance, fairness, and a positive psychological climate.

Implications for organizations

The increased prevalence of remote and hybrid work, flexible work arrangements, digital technologies and automation do constitute significant challenges for employees. Coping with these changes and challenges can have detrimental influence on employees' well-being, who experience loneliness and feelings of isolation, stress and anxiety, and disengagement from their work. As recent surveys show, negative experiences at work are reported by employees worldwide (Gallup, 2024).

Organizations can tackle these challenges by recognizing the critical role managers plays in supporting their team members' well-being and by promoting a culture of engagement. They can invest in leadership development programs that focus on developing managerial skills such as empathetic communication, providing support, providing and encouraging constructive feedback, promoting work-life balance, creating opportunities for interactions and team support. These practices not only help employees feel supported but also foster a sense of belonging, which can combat feelings of isolation and boost overall engagement. Managers act as models for their subordinates, they are more likely to inspire similar levels of engagement in their teams, which, in turn, enhances job satisfaction and organizational commitment.

Another key implication for organizations is the need for comprehensive and targeted well-being interventions. Policies that encourage flexibility, support of employees mental health, and a balanced approach to work and life demands can create a psychological safe climate and a culture that foster engagement. For young employees, particularly those under 35 who reported frequent experiences of loneliness in the workplace (Gallup, 2024), targeted interventions could include mentorship opportunities, career development support, and contexts for peer interactions and social connections. Fostering employee well-being is not a one-time initiative but a continuous process that requires attention to managerial engagement, workplace culture, and supportive policies to support a more resilient workforce.

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RESEARCH ARTICLE

Distinguishing Gratitude and Feedback at Work: Implications for Employees' Burnout and Physical Symptoms

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Abstract

Few studies examined the effects of receiving gratitude in organizational contexts. Moreover, no studies determined whether the effects of received gratitude at work are distinct from those of feedback. In this study, we tested whether received gratitude protects employees from burnout and physical symptoms. Moreover, we argued that received gratitude and feedback are qualitatively different types of job resources that should interact with different types of job demands in predicting employees' strain. Specifically, we hypothesized that received gratitude would interact with emotional demands, whereas feedback would interact with role ambiguity. A sample of 550 Romanian employees participated in the research. Only gratitude was a significant predictor of exhaustion and physical symptoms. Both received gratitude and feedback negatively predicted disengagement. No significant interaction effects with job demands were found. Taken together, the results suggest that received gratitude is distinct from feedback and that it may more strongly relate to employees' health.

Keywords

received gratitude, feedback, job demands, burnout, physical symptoms

Prior research suggests that gratitude plays a significant role in enhancing both well-being and performance within workplace settings. Most studies focused on the positive outcomes of *being* or *feeling* grateful and found that employees who were higher in trait and state gratitude reported a number of positive outcomes, such as increased levels of job satisfaction and work engagement, lower

levels of burnout and depression, as well as more organizational citizenship behaviors (e.g., Cain et al., 2019; Guan & Jepsen, 2020; Spence et al., 2014). Fewer studies investigated the effects of *receiving* gratitude in the workplace (i.e., being the target of another person's expressed gratitude). However, the existing findings suggest that receiving gratitude at work (from the

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supervisor, colleagues, or beneficiaries/clients) is linked to higher levels of motivation, work engagement and performance, as well as positive spillover to employees' family lives (Lee et al., 2018; Ni et al., 2022; Nicuță et al., 2024; Tang et al., 2022). Therefore, although expressions of gratitude were given relatively little attention by researchers in work and organizational psychology, there is promise in exploring their association with various employee outcomes.

To contribute to the literature on received gratitude in the workplace, the aim of the present study was three-fold. First, we built on the job demands-resources (JD-R) model (Demerouti et al., 2001) and sought to test whether received gratitude, which we conceptualized as a job resource, could potentially prevent or reduce burnout and the physical symptoms which are often associated with burnout. Despite the extensive research on burnout, investigating the factors that help protect against it remains essential, as employees experiencing burnout are known to have heightened levels of anxiety and depression (Koutsimani et al., 2019), an increased risk of developing serious health conditions, such as cardiovascular disease (John et al., 2024), and greater susceptibility to accidents and injuries (Nahrgang et al., 2011). Additionally, burnout negatively impacts job performance, is linked to increased absenteeism, and contributes to higher turnover rates (Swider & Zimmerman, 2010), resulting in significant costs for companies (e.g., Han et al., 2019). To our knowledge, while some studies suggest that receiving gratitude may protect employees from burnout and the health problems that accompany it, the existing findings are inconsistent (e.g., Converso et al., 2015; Starkey et al., 2019). Therefore, further research is needed to clarify the role of received gratitude in mitigating burnout. The second aim of this study was to isolate the effects of received gratitude from the effects of feedback. Although there is some degree of overlap between these concepts, no previous study attempted to determine whether received gratitude relates to employee ill-being, over and above the effects of feedback. Finally, a third objective of the study was to

determine whether received gratitude might reduce the negative impact of high job demands on employees' strain. Building on the demand-induced strain compensation (DISC) model (de Jonge & Dormann, 2003), we argued that one notable distinction between received gratitude and feedback might be that they are different types of job resources, which interact with different types of job demands in predicting employees' burnout and physical symptoms. In the following sections, we provide an overview of the theoretical models and empirical evidence that underpinned our hypotheses.

1.1 Received Gratitude as a Protective Job Resource – Associations with Burnout and Health Problems

According to the JD-R model (Demerouti et al., 2001), work environment characteristics, although very diverse across different types of occupations, can be classified as either job demands or job resources. Job resources are valued aspects of the job that help employees fulfill their work-related goals, as well as promote their personal development (Demerouti et al., 2001; Schaufeli & Taris, 2014). Consequently, job resources have beneficial outcomes. They help employees develop more personal resources and lead to increased work engagement and organizational commitment, as well as improved job performance (Bakker et al., 2014). Although job resources were theorized to be more closely linked to positive outcomes, they were also shown to protect against burnout. Meta-analytic work suggests that employees who have access to more job resources (such as autonomy, social support, opportunities for development, etc.) are less likely to develop burnout (Crawford et al., 2010; Lesener et al., 2019). This seems due to the fact that job resources help fulfill employees' basic needs for autonomy, competence, and relatedness, thus slowing down the energy depleting process that leads to the emergence of burnout (Van den Broeck et al., 2008).

In this study, we argue that received gratitude could also be conceptualized as a job

resource and should, therefore, mitigate employee burnout, as well as the physical health complaints that accompany it. A number of previous studies provide direct and indirect evidence for the relationship between receiving expressions of gratitude and employee burnout. First, receiving gratitude at work was shown to have an energizing effect on employees. Two studies conducted by Tang et al. (2022) found that receiving gratitude from patients creates personal resources for nurses and doctors, in the form of increased relational energy. Otherwise put, in days when employees received more appreciation from their patients, they reported feeling invigorated by the interaction with the beneficiaries of their work. Zhan et al. (2023) also found that received gratitude from patients protects nurses from ego depletion. Further, previous evidence suggests that, in a similar manner to other job resources, received gratitude promotes the satisfaction of employees' basic psychological needs (Nicuță et al., 2024). Employees themselves seem to acknowledge the benefits of receiving gratitude in the workplace. A survey conducted on palliative care professionals indicated that a majority of them considered that receiving gratitude from patients and their relatives is a source of support in difficult times, that it reduces burnout and protects against compassion fatigue (Aparicio, Centeno, Juliá, & Arantzamendi, 2022).

Insofar as we are aware, to date, only Converso et al. (2015) have made an attempt to explicitly investigate the effect of received gratitude at work on burnout. The results of their research indicated that received gratitude was negatively related to emotional exhaustion and depersonalization in some participants (i.e., oncology nurses), but not in others (i.e., emergency nurses). These inconsistent findings suggest that there is a need for more research regarding the effect of received gratitude on employees' burnout. In this study, we sought to test whether the protective effect of gratitude at work would also extend to other categories of employees. In line with the JD-R model (Bakker et al., 2014; Demerouti et al., 2001) and the empirical evidence presented above, we hypothesized that received gratitude would be negatively related to burnout (H1).

Previous studies grounded in the JD-R model also showed that, in addition to preventing burnout, job resources predict fewer health problems in employees (e.g., Martinussen et al., 2007; Mayerl et al., 2016; Schaufeli & Bakker, 2004). In this study, we sought to investigate whether received gratitude could play a similar protective role in relation to employees' health. Two previous studies tested whether receiving gratitude at work could be related to employees' health complaints. One study found that nurses who felt that they were more appreciated at work also reported lower back pain intensity and less impairment related to lower back pain (Elfering et al., 2017). Further, in a weekly diary study conducted on acute care nurses, Starkey et al. (2019) investigated the effect of receiving gratitude expressions on sleep quality and adequacy, headaches, and healthy eating. The results showed that, at the week level, there was a positive, yet small correlation between received gratitude and sleep quality. However, received gratitude at work was indirectly related to the other health measures through satisfaction with quality care. In weeks when nurses received more gratitude, they evaluated the results of their work more positively, which in turn resulted in improved sleep adequacy, less frequent headaches, and more attempts to eat healthily.

Much like the research investigating the effect of received gratitude on burnout, these studies were conducted on a very specific category of employees (nurses) and reported mixed results (i.e., received gratitude was significantly associated with some symptoms but only indirectly associated with others). Moreover, these studies did not include a comprehensive measure of health complaints and focused on very specific symptoms (e.g., lower back pain, headaches). Therefore, in our study, we aimed to add to the literature by investigating how receiving gratitude relates to employees' physical symptoms in a diverse sample of employees. Drawing on past research that highlighted the health-protective nature of job resources for employees, we expected that received gratitude at work would be negatively related to employees' health symptoms (H2).

1.2 Disentangling the Effects of Received Gratitude from the Effects of Feedback

When investigating the effects of expressions of gratitude in the workplace, it is worth examining whether they are different from those of feedback. Previous studies indicate that feedback is a valuable job resource. Consistent evidence suggests that employees who received more feedback in their workplace were at a lower risk of experiencing burnout (e.g., Bakker et al., 2005; Gong et al., 2017; Kozak et al., 2013; Schaufeli et al., 2009; Xanthopoulou et al., 2007) and reported better general health (Kozak et al., 2013; Schaufeli & Bakker, 2004). Most of these studies did not differentiate between positive and negative feedback and defined feedback as the quantity and quality of information employees received about their performance (from the job itself, from the supervisor or coworkers etc.). However, it is important to note that feedback consisting solely of unfavorable comments can be associated with increased burnout (van Emmerik et al., 2004; Xing et al., 2021). In this paper, we refer to feedback as highlighting both positive and negative aspects of one's performance.

Expressions of gratitude might be considered a sub-type of feedback, seeing that they inherently communicate to the employees that others evaluated their performance favorably. In fact, a study using focus groups found that employees sometimes used the terms “gratitude” and “feedback” interchangeably (Beck, 2016). Therefore, one could ask – is received gratitude old wine in new bottles? Are “received gratitude” and “feedback” alternative terms that describe the same situations? The same study seems to offer a tentative answer to this question. Participants in Beck's research acknowledged that while feedback places a greater emphasis on assessment, receiving gratitude indicates that the manager “went out of their way to let [the employees] know [their] efforts were appreciated” (p. 343). When asked about the significance of gratitude relative to feedback, the majority of the participants in Beck's survey answered that they were equally important. These results seem to suggest that

showing gratitude in the workplace alongside feedback serves a distinct purpose and is not redundant. Therefore, in this study, we expected that received gratitude would have a significant effect on employees' burnout and physical health, even after controlling for the effect of feedback.

1.3 The Moderating Effect of Received Gratitude and Feedback on the Relationship between Job Demands and Employees' Burnout

The JD-R theory (Bakker et al., 2014) argues that job demands initiate a health impairment process. In order to cope with job demands, employees need to exert significant physical and mental effort, which ultimately drains their energy. Previous literature consistently indicated that high levels of job demands (e.g., role ambiguity, role conflict, or emotional demands) predicted burnout (see Alarcon, 2011; Lesener et al., 2019 for meta-analyses). Moreover, employees who have to deal with significant job demands for extended periods of time are more at risk of developing physical symptoms (e.g., Bakker et al., 2010; Chen & Kao, 2012; Moreno-Jiménez et al., 2012; Roelen et al., 2008).

However, in a work environment where job demands are accompanied by abundant job resources, the psychological and physical costs of job demands might be diminished. According to the JD-R theory (Bakker et al., 2014), job resources are expected to moderate the negative impact of job demands on burnout. Nonetheless, empirical evidence regarding the buffering role of job resources in the relationship between job demands and burnout is mixed. In line with the theoretical model, a number of studies reported that job demands had a weaker effect on employees' burnout when job resources were high (e.g., Bakker et al., 2005; Fadare et al., 2022; Xanthopoulou et al., 2007). In contrast, some research reported non-significant interaction effects (e.g., Hartwig et al., 2020; Martinez et al., 2023), whereas other studies reported evidence for a reverse buffering effect. For instance, in a meta-analysis conducted by Mathieu et al. (2019), the authors found that

emotional support buffered the effect of stressors on strain in about half of the studies that were included in the analysis, whereas an exacerbating effect was reported by the rest of the studies.

The DISC model (de Jonge & Dormann, 2003; de Jonge et al., 2008) might shed some light on these conflicting results. According to the de Jonge & Dormann, when employees are confronted with a job demand, they will first rely on their internal resources in order to manage this situation. If this attempt is not successful (i.e., the internal resources are depleted), the employees will turn to matching external resources as a way to compensate for the negative impact of the job demand. Only when such matching job resources do not exist will the employees resort to non-matching job resources. For example, according to the model, the effect of emotional job stressors on employees' burnout is more likely to be attenuated by emotional, rather than cognitive, job resources. This situation is called "a double-match of common kind". In addition, the triple match principle posits that interaction effects between job demands and job resources are more likely to occur when the outcome variable is qualitatively similar to the demands and resources that were taken into consideration (e.g., the interaction between *emotional* job demands and *emotional* job resources in predicting *emotional* exhaustion).

As outlined in the introduction, in this study we aimed to test whether received gratitude might buffer the impact of job demands on employees' burnout and physical symptoms. Previously, Converso et al. (2015) found that received gratitude did not significantly interact with psychological demands in predicting either emotional exhaustion or depersonalization. However, the relatively small number of participants in Converso et al.'s study increases the probability of a false negative error. Therefore, research conducted on larger samples is needed regarding the possible moderating effect of received gratitude in the relationship between job demands and burnout. Moreover, the non-significant interaction reported by Converso et al. could be due to the fact that there was no match between the job demands that the authors

evaluated and received gratitude, as a job resource. Defined as the mental effort employees require in order to fulfill their duties, psychological demands seem to be a cognitive stressor, which might be less likely to be buffered by gratitude.

In this study, we drew on the DISC model (de Jonge et al., 2008) and argued that another distinction between received gratitude and feedback might lie in the fact that they are qualitatively different types of job resources which buffer the adverse impact of different types of job demands. Specifically, because feedback provides employees with information about their performance, as well as how they could improve their work in the future, it could be regarded as a cognitive resource and should protect against the negative impact of high cognitive demands. A number of cognitive job demands were previously described in the literature, such as time pressure, role conflict, role ambiguity, complex problem solving, or vigilance (e.g., Abbasi & Bordia, 2019). In this paper, we specifically tested the interaction between feedback and role ambiguity. Unlike other cognitive job demands (e.g., complex problem solving), role ambiguity can arise in virtually any profession—from entry-level positions to managerial roles—whenever there is a lack of clarity in the duties that need to be fulfilled by an employee. We also chose role ambiguity as a cognitive demand in this study because we believe that there is a better match between feedback and role ambiguity than between feedback and other job demands (e.g., vigilance). This is because feedback addresses employees' uncertainties, providing them with guidance on how to perform their tasks and/or information about expected results.

Compared to feedback, gratitude expressions appear to place less emphasis on analysing past performance and providing recommendations for the future. Previous literature indicates that expressions of gratitude are linked to perceptions of interpersonal warmth and serve as a means to strengthen social bonds (e.g., Williams & Bartlett, 2015). Consequently, we propose that expressions of gratitude act as an emotional resource that interacts with emotional demands rather than with cognitive demands. For example, managing a class of unruly

students may imply both emotional and cognitive demands for teachers. When parents express appreciation for a teacher's patience and dedication, they do not offer advice on managing student behavior (which would help alleviate the cognitive demands). Instead, parents' gratitude highlights the value of the teacher's efforts, helping them feel understood and more connected to their beneficiaries. This connection may provide the teacher with the resources needed to better navigate the emotional demands of their role.

To summarize, given the differences between feedback and gratitude, in this study we expected that received gratitude would alleviate the negative impact of emotional job demands (rather than cognitive demands) on employee burnout and physical symptoms, whereas feedback should diminish the negative effects of high cognitive job demands (i.e., role ambiguity) (H3).

2. Method

2.1 Participants and Procedure

The sample consisted of 550 Romanian employees (75.1 % female), aged between 20 and 73 years ($M = 37.51$, $SD = 10.71$). In terms of education, 1.6% had completed lower secondary education, 23.3% had a high school diploma, 1.6% had pursued tertiary non-university education, 35.1% had a Bachelor's degree, and 38.4% had a Master's degree (or higher). Participants had an average tenure in their current organizations of 8.22 years ($SD = 8.52$). They were employed in a variety of professions (e.g., in healthcare, education, hospitality, finance, engineering, retail, etc.) and were working for both state institutions (34.7%) and private organizations (65.3%). Most participants reported having full-time jobs (94%) and reported holding non-management roles (78.9%).

Undergraduate psychology students enrolled in a Work Psychology course helped recruit the participants. Students were asked to contact one or two people within their social network who might have been willing to participate in a psychological study that investigated employee health. The only requirements for participation in the study were being at least 18 years of age and having

been employed for at least 6 months at the time of the research. Written informed consent was obtained from those interested in taking part in the study. The questionnaires were then completed online. Participant anonymity was guaranteed. Students were provided course credit as compensation for their assistance in recruiting participants.

2.2 Instruments

Unless otherwise specified, for all questionnaires, items were rated on a scale from 1 = *completely disagree* to 5 = *completely agree*.

Received Gratitude

Received gratitude was measured using a scale adapted from Tang et al. (2022). The scale consists of 3 items, asking participants to indicate the extent to which they receive appreciation in their workplace from their colleagues, supervisor, or beneficiaries (e.g., "My beneficiaries are grateful to me."). The items were added up into a total score ($\alpha = .93$).

Feedback

The extent to which participants received feedback regarding their work was measured using the Feedback from Others subscale from the Work Design Questionnaire (Morgeson & Humphrey, 2005). The scale consists of 3 items (e.g., "I receive a great deal of information from my manager and coworkers about my job performance"), which were summed up to form a total score ($\alpha = .81$).

Job Demands

Two job demands were measured in this study. We used scales from the Copenhagen Psychosocial Questionnaire, third version (Burr et al., 2019) to evaluate emotional demands (3 items; e.g., "Do you have to deal with other people's personal problems as part of your work?"; $\alpha = .84$) and role ambiguity (by reverse coding 3 items that measured role clarity; e.g., "Do you know exactly which areas are your responsibility?"; $\alpha = .84$). The scales had good internal consistency ($\alpha = .84$ for both scales).

Burnout

Burnout was measured using the Oldenburg Burnout Inventory (Halbesleben & Demerouti, 2005). The 16-item questionnaire assesses employees' levels of exhaustion (e.g., "There are days when I feel tired before I arrive at work.") and disengagement (e.g., "Lately, I tend to think less at work and do my job almost mechanically.") ($\alpha = .81$ for disengagement; .83 for exhaustion).

Physical symptoms

Physical symptoms were assessed with a shortened version of the Physical Symptoms Inventory (PSI; Spector & Jex, 1998). The scale comprises 12 items, which represent various physical symptoms (e.g., "headache", "tiredness or fatigue"). Participants are asked to indicate how often they experienced each of these symptoms during the last 30 days, using a scale from 1 = *not at all* to 5 = *every day*. A total score was computed by summing up all items ($\alpha = .86$).

2.3 Overview of the Analyses

Preliminary analyses were run to determine whether participants' socio-demographic and work-related factors (i.e., age/ tenure, gender, type of employer, type of position) were related to the main variables of the study. Zero-order correlations among the study variables were then computed. Hierarchical regression analyses were used to test the main effects of received gratitude, feedback, and the two job demands on employees' exhaustion, disengagement, and physical symptoms, as well as the interactions between job resources and job demands in predicting these criteria.

3. Results

3.1 Preliminary Analyses

Correlation analyses revealed that employees' tenure was negatively related to exhaustion ($r = -.137$) and disengagement ($r = -.208$), all $ps < .001$. Moreover, men reported less exhaustion than women – $M(SD)_{\text{men}} = 20.21$ (6.22) vs $M(SD)_{\text{women}} = 22.23$ (6.12), $t(548) = -3.31$, $p = .001$. Male participants also reported less physical symptoms compared with female participants – $M(SD)_{\text{men}} = 23.44$ (8.39) vs $M(SD)_{\text{women}} = 27.07$ (8.71),

$t(548) = -4.26$, $p < .001$. Employees who worked for private companies reported more exhaustion than employees working for state institutions – $M(SD)_{\text{private}} = 22.44$ (6.34) vs $M(SD)_{\text{state}} = 20.38$ (5.71), $t(548) = 3.74$, $p < .001$. They also reported more disengagement – $M(SD)_{\text{private}} = 22.09$ (6.67) vs $M(SD)_{\text{state}} = 18.08$ (5.53), $t(453.52) = 7.52$, $p < .001$ and more physical symptoms – $M(SD) = 26.84$ (9.02) vs $M(SD) = 24.91$ (8.14), $t(423.20) = 2.54$, $p = .01$, compared with employees working in state institutions. No other relationships were significant. Given the results of the preliminary analyses, we controlled for employees' gender, tenure and type of employer in the regression analyses.

3.2 Correlations among Job Resources, Job Demands, Burnout and Physical Symptoms

Descriptive statistics and zero-order correlations among the main study variables are displayed in Table 1. There was a positive association between received gratitude and feedback. Both received gratitude and feedback were negatively associated with exhaustion, disengagement, and physical symptoms. Job demands (emotional demands and role ambiguity) were positively associated with the dimensions of burnout, as well as physical symptoms.

3.2 Regression Analyses

In order to test the hypotheses, three hierarchical regression models were run (one for each dependent variable). In the first step, socio-demographic and work-related variables were entered in the model. In the second step, we entered received gratitude, feedback, and job demands. Finally, in the third step, the interaction terms were added. The variables were mean-centered before computing the cross-product terms.

The full results of these analyses are presented in Table 2. Participants' gender ($\beta = .15$, $b = 2.21$, $p < .001$), tenure ($\beta = -.10$, $b = -.06$, $p = .01$), and type of employer ($\beta = .13$, $b = .17$, $p < .001$) accounted for 5% of the variation in exhaustion. Adding received gratitude, feedback, emotional demands and role ambiguity to the model explained an

Table 1. Means, Standard Deviations, and Correlations among the Main Variables of the Study

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Received gratitude	14.64	4.02					
2. Feedback	9.74	3.19	.603***				
3. Emotional demands	8.82	3.72	-.095*	.025			
4. Role ambiguity	5.05	2.45	-.381***	-.269***	.146***		
5. Exhaustion	21.72	6.20	-.414***	-.221***	.351***	.381***	
6. Disengagement	20.70	6.57	-.491***	-.360***	.173***	.430***	.671***
7. Physical symptoms	26.17	8.77	-.241***	-.118**	.270***	.286***	.564***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

additional 30% of the variation in exhaustion. Received gratitude was the most important predictor of employees' exhaustion ($\beta = -.33$, $b = -.51$, $p < .001$). Emotional demands ($\beta = .30$, $b = .51$, $p < .001$) and role ambiguity ($\beta = .18$, $b = .45$, $p < .001$) were positive predictors in this model. Feedback was not a significant predictor of exhaustion ($\beta = .03$, $b = .08$, $p = .53$). Introducing the interaction terms to the model in the third step did not explain more of the variation in employees' exhaustion. Therefore, we found no evidence for the moderating role of received gratitude/feedback in the relation between job demands and exhaustion.

The socio-demographic variables explained 9% of the variation in disengagement, with tenure ($\beta = -.13$, $b = -.08$, $p = .001$) and the type of employer ($\beta = .25$, $b = .346$, $p < .001$) (but not gender) being significant predictors. Job resources and job demands accounted for an additional 28%. The results were similar to those obtained in the case of exhaustion. Specifically, received gratitude was the most important predictor of disengagement ($\beta = -.32$, $B = -.53$, $p < .001$). Feedback was a marginally significant and

negative predictor ($\beta = -.07$, $b = -.15$, $p = .07$), whereas role ambiguity ($\beta = .19$, $b = .53$, $p < .001$) and emotional job demands ($\beta = .15$, $b = .27$, $p < .001$) were positive predictors of disengagement. Entering the interaction terms to the model did not result in an improvement of the model. None of the interaction terms were significant predictors of disengagement.

The socio-demographic variables accounted for 4% of the variation in physical symptoms. Gender ($\beta = .18$, $b = 3.81$, $p < .001$) and the type of employer ($\beta = .10$, $b = 1.83$, $p = .02$) were the significant predictors in this first step of the model. Adding job demands and job resources to the model explained an additional 14% of the variation in physical symptoms. Emotional demands ($\beta = .23$, $b = .54$, $p < .001$) were the most important predictor, followed by received gratitude ($\beta = -.17$, $b = .38$, $p < .001$) and role ambiguity ($\beta = .16$, $b = .60$, $p < .001$). Feedback was not a significant predictor of physical symptoms ($\beta = .03$, $b = .08$, $p = .53$). Entering the interaction terms in the third step of the model did not account for additional variation in the criterion variable.

Table 2. Results of the Hierarchical Regression Analyses Testing the Hypotheses

Predictor	Exhaustion			Disengagement			Physical symptoms	
	Controlled variables	Main effects model	Moderation model	Controlled variables	Main effects model	Moderation model	Main effects model	Moderation model
Gender	.15***	.15***	.15***	-.02	-.00	-.00	.18***	.18***
Tenure	-.10*	-.08*	-.09*	-.13**	-.10**	-.10**	-.04	-.04
Employer	.13**	.13**	.13**	.25***	.20***	.20***	.09*	.09*
Received gratitude	-.33***	-.33***	-.33***	-.32***	-.32***	-.32***	-.17***	-.16**
Feedback	.03	.03	.03	-.07	-.07	-.07	.03	.03
Emotional demands	.30***	.30***	.30***	.15***	.15***	.15***	.23***	.23***
Role ambiguity	.18***	.18***	.17***	.19***	.19***	.20***	.16***	.18***
Received gratitude x emotional demands			-.01		-.03	-.03		-.09
Received gratitude x role ambiguity			-.03		-.00	-.00		.01
Feedback x emotional demands			.02		.01	.01		.07
Feedback x role ambiguity			.02		.03	.03		.04
adjusted R ²	.05	.35	.35	.09	.37	.37	.18	.18
Δ R ²		.30	.00		.28	.00	.14	.00
F change		64.57***	.26		62.07***	.43	24.91***	1.14

Note. The values represent unstandardized coefficients. * $p < .05$, ** $p < .01$, *** $p < .01$

Discussion

Even though some progress has been made in recent years regarding the study of gratitude in the workplace, this area of research is still underexplored. To advance the literature, the present study aimed to investigate how receiving gratitude relates to employees' burnout and physical symptoms, as well as whether received gratitude might moderate the impact of job demands on employees' strain. While seeking to provide answers to these research questions, we also explored a) whether the effects of receiving gratitude are significant after accounting for feedback and b) whether gratitude and feedback might be distinguished from one another by the way they interact with different types of job stressors.

In line with our hypotheses (H1 & H2), correlation analyses indicated that received gratitude was negatively linked to both burnout dimensions, as well as to the physical symptoms reported by the participants. These results suggest that received gratitude is comparable to other job resources investigated under the JD-R framework (Bakker et al., 2014), which were consistently shown to prevent and reduce employee strain (Crawford et al., 2010; Lesener et al., 2019). Moreover, these findings support and extend previous empirical work (Converso et al., 2015; Elfering et al., 2017; Starkey et al., 2019), by showing that the protective effects of receiving gratitude are applicable to a wider range of employees, not just to those whose jobs are in healthcare. Future studies might investigate possible moderators in these relationships. For example, Tang et al. (2022) found that occupational identity amplified the effect of received gratitude from patients on employees' relational energy. In a similar manner, it could be that the positive effect of received gratitude on burnout is stronger for employees who define themselves based on their professional group.

Correlation analyses showed that feedback was also negatively related to exhaustion, disengagement, and physical symptoms, a result which was previously reported by other studies (e.g., Kozak et al., 2013; Schaufeli et al., 2009). However, when both received gratitude and feedback were entered in the

regression analyses, only received gratitude remained a significant predictor of exhaustion and physical symptoms. Both received gratitude and feedback negatively predicted employee disengagement, although the effect of feedback was only marginally significant. These results suggest that, when ill-being is considered as an outcome, employees might derive more benefit from receiving gratitude than from receiving feedback. Compared with received gratitude, feedback might be less strongly associated with exhaustion and physical symptoms because of its dual nature. On the one hand, feedback replenishes employees' energy resources because it provides a sense of validation by conveying to the employees that they are competent and valued. On the other hand, feedback also includes details about what needs to be improved; thus, further effort is required from the employees to address those issues (which might actually contribute to their exhaustion). Moreover, it is possible that feedback has a reduced impact compared with gratitude because it is a standard practice in most organizations and it is something that employees are entitled to receive. In contrast, employees do not typically expect gratitude from supervisors and colleagues, which may enhance its effect. Supporting this notion, previous qualitative research indicates that the element of surprise in expressions of gratitude can make them more impactful and memorable. In their study on palliative care professionals, Aparicio, Centeno, Robinson, & Arantzamendi (2022) found that unexpected expressions of gratitude, which seemed undeserved in relation to the work the employees believed they had contributed, held special significance for the participants and left a lasting impression. More work is needed in order to determine what factors might explain the differential impact of gratitude and feedback on employees' burnout and health.

Contrary to our hypothesis, we did not find support for the moderating role of either received gratitude or feedback in the relation between job demands and burnout/ physical symptoms. Both matching (e.g., received gratitude x emotional demands) and non-matching (e.g., received gratitude x role ambiguity) interaction terms were non-

significant in the regression analyses, suggesting that feedback and received gratitude do not buffer the impact of job stressors, regardless of whether they are qualitatively similar or not. These results diverge from the interaction effects that are proposed within the JD-R model (Demerouti et al., 2001), but align with a growing number of empirical studies reporting job resources did not mitigate the adverse effects of job demands (e.g., Converso et al., 2015; Hartwig et al., 2020; Martinez et al., 2023). Future research could consider conducting a more in-depth analysis of the relationship between gratitude, job demands, and employees' strain. First, according to the DISC model (de Jonge et al., 2008), the chances of finding significant interactions would have been higher if the outcomes had also matched the demands and the resources (i.e., the triple matching effect). In this paper, we tested a double-match of common kind, i.e., the interaction between similar types of job demands and job resources, without considering the match with the outcome (e.g., the scale used to measure exhaustion includes items which refer to emotional, cognitive, and physical exhaustion, aligning with a broader conceptualization of this dimension of burnout as proposed within the JD-R model). Had moderation emerged under these conditions, it would have been a notable finding, suggesting a particularly robust interaction effect even without isolating emotional exhaustion or fully matching the outcome to the investigated resources and demands. Future studies might however employ measures of emotional exhaustion when testing the interaction between received gratitude and emotional demands. Second, it is worth pointing out that this study assessed a limited number of job demands. Future research might investigate whether received gratitude interacts with other job characteristics in predicting employees' strain. For example, one could wonder whether receiving gratitude from one's beneficiaries/clients could buffer against the negative effects of a lack of formal recognition. Third, future studies might test whether the moderating effect of received gratitude in the relationship between job demands and burnout depends on the characteristics of the employee. It might be that received gratitude

has a buffering effect for some employees, but not for others. For example, using a large sample of faculty members, Xu & Payne (2020) found that task discretion (as a job resource) had a buffering effect in the relationship between task ambiguity (as a job demand) and employee well-being only for employees who were low in self-efficacy. Similarly, employees who are low in self-efficacy could derive greater benefit from receiving appreciation in the workplace, seeing that such recognition would serve to reaffirm their competencies.

This study has a number of theoretical and practical implications. From a theoretical standpoint, the present research represents the first attempt to disentangle the effect of received gratitude from those of feedback. The results advance our understanding of received gratitude in the workplace, by showing that it is distinct from feedback and that it might have stronger effects against burnout and physical symptoms than feedback. From a practical perspective, the results of this study suggest that an organizational culture which promotes gratitude might result in important benefits for employees, as well as for the organization as a whole. By protecting employees from exhaustion and disengagement, expressions of appreciation could help prevent the costs associated with burnout, translating into improved mental health and job performance, decreased levels of absenteeism, increased job satisfaction, and better employee retention (Alarcon, 2011; Koutsimani et al., 2019; Swider & Zimmerman, 2010). Consequently, efforts directed at making expressions of gratitude more frequent within organizations could be one inexpensive way to improve employees' well-being. To date, most interventions were developed with the aim of increasing employees' own *felt* gratitude (e.g., Adair et al., 2018; Komase et al., 2019; Locklear et al., 2021). However, the existent interventions could be easily adapted so that they also target *received* gratitude. For example, gratitude letters were shown to decrease burnout in those employees who wrote them (Adair et al., 2018). This intervention could be modified to also include a second part, where the letter is actually sent to its intended recipient. It could be expected that receiving such gratitude letters would also positively

impact employees' burnout. In addition to highlighting the benefits of cultivating gratitude, these findings suggest that organizations looking to reduce employee burnout should consider lowering demands, as simply providing more resources may not be a sufficient buffer to protect employees from the adverse effects of high job demands.

This research is not without limitations. First, the study used a cross-sectional design that does not allow causal inferences. Consequently, longitudinal and experimental studies are needed to establish whether received gratitude is a determinant of employees' burnout. Secondly, the use of self-report measures might artificially increase the associations among the variables. Future studies might consider including objective measures of employees' health status and test whether they are linked to received gratitude. Third, another potential limitation of this study is linked to the recruitment of participants via undergraduate psychology students, which may have negatively affected the diversity of the sample. Although the sample included employees with diverse professional backgrounds, most participants had relatively high levels of education and held positions that required specialized knowledge and skills. Therefore, the results should be generalized with caution to other categories of employees. This homogeneity may be attributed to the fact that the sample was primarily drawn from the students' friends and family networks. Future studies should consider using other recruitment strategies and testing these hypothesis on samples with different characteristics (e.g., unskilled and part-time workers).

To conclude, the results of the present study suggest that gratitude in the workplace is a resource that could play an important role in protecting employees' health. Expressions of gratitude are more than conventional etiquette: they signal that the employees' contributions are important and appreciated, thus preventing depletion and disengagement, as well as the physical symptoms that accompany them. New interventions might be developed based on these findings in order to take advantage of the positive effects of received gratitude in organizational settings.

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RESEARCH ARTICLE

From Workaholism to Work Performance through Burnout and Self-undermining

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Abstract

Workaholism is a widely spread phenomenon that affects the lives and work performance of thousands of employees. Based on the Job Demands-Resources and Conservation of Resources theories, this study aimed to analyze the serial mediation effect of burnout and self-undermining behaviors on the relationship between workaholism and work performance. We collected data from 175 employees who worked in different areas and tested a serial mediation model. Our results suggest that there is no direct relationship between workaholism and performance, but this relation is fully mediated. Burnout and self-undermining mediated this relationship separately as well as serially. These results show that employees need effective ways of dealing with and preventing workaholism before it can lead to burnout or self-undermining and affect their well-being and their performance at work.

Keywords

workaholism, burnout, self-undermining, performance, serial mediators.

1. Introduction

Workaholism poses a serious risk among employees and can lead to a variety of negative consequences. These consequences can be seen in different areas of a person's life. In the work context, workaholics experience lower levels of job satisfaction and higher levels of job stress and engage more frequently in counterproductive work behaviors (Clark et al., 2016). Regarding the family context, workaholism negatively relates to family satisfaction and family functioning. The focus

of this research paper is, however, on the individual level. More specifically, the relationship between workaholism, burnout, and self-undermining and how these affect an employee's work performance. According to the literature, workaholism is positively related to burnout and negatively related to physical health, life satisfaction, and mental health (Clark et al., 2016). Many studies have investigated the relationship between workaholism and work performance in recent years. However, there is no consensus on whether this relationship is positive, or

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negative, or if there is one. This study adopts the negative view of workaholism and operates on the assumption that there is a direct and negative relationship between the two. Moreover, we analyze the negative indirect relationship between these variables, investigating burnout and self-undermining as serial mediators.

Workaholism is a widespread phenomenon among employees since approximately 14% of them engage in excessive and compulsive work behaviors, according to a recent meta-analysis published by Andersen et al. (2023). Workaholism implies feeling compelled to work due to internal pressures, the existence of persistent and frequent thoughts about work when not working, and working beyond what is expected despite the possibility of suffering negative consequences (Clark et al., 2016). Workaholics view work as something that needs to be done rather than a way of obtaining satisfaction. That's why some of the negative consequences a workaholic person can suffer from are a decrease in work satisfaction, high levels of stress, work-family conflict, increased burnout, decreased physical and psychological health, and decreased satisfaction with life (Clark et al., 2016). Despite the growing interest, there is not a consensus in the literature regarding how workaholism should be conceptualized and measured. For the purposes of this study, we will use a topical approach of workaholism; it is defined as a multidimensional construct consisting of: 1) an internal pressure to work (motivational dimension), 2) persistent and uncontrollable thoughts about work (cognitive dimension), 3) feeling negative emotions when not working or when being prevented from working (emotional dimension) and 4) excessive work, that exceeds what is necessary and expected (behavioral dimension) (Clark et al., 2020).

Recently, the Job Demands-Resources theory (JD-R; Bakker & Demerouti, 2017) has been extended to introduce personal factors beyond contextual factors (job resources and demands). Job demands are defined as those aspects of the job that require sustained effort and are associated with different physiological or psychological costs (Bakker & Demerouti,

2017). Job resources represent aspects of the job that aid individuals in achieving objectives, reducing job demands and their associated costs, or aspects that lead to personal growth and development (Bakker & Demerouti, 2017). Beyond these contextual factors, personal resources and demands have been included in the model. Introducing these factors was necessary because they influence an individual's way of working. Personal demands are defined as 'the requirements that individuals set for their own performance and behavior that force them to invest effort in their work and are therefore associated with physical and psychological costs' (Barbier et al., 2013, p. 751). Workaholism could be considered a personal demand according to the JD-R (Bakker & Demerouti, 2017) theory because it implies an internal pressure to work and uncontrollable thoughts about work, which determines employees to work excessively and compulsively (Vîrgă & Sîrboiu, 2012). In addition, Andreassen, Hetland, and Pallesen (2010) presented workaholism as an aspect developed by employees to satisfy their basic needs. For example, because of the fact that, at present, most of the time is spent at work, one of the basic needs of the employee is to feel competent. Workaholism gives them this possibility because the employee considers the work excessive to be what ensures their success. Thus, workaholism appears as personal demands developed by employees to feel comfortable with themselves but also with the work of those who achieve it.

The JD-R theory (Bakker & Demerouti, 2017) can best explain the complex relationships between workaholism, burnout, and performance. According to this theory, employees' work performance can be stimulated through a motivational process, or it can be inhibited through a health-impairment process. The motivational process describes the way in which job resources lead to an increase in motivation, which leads to an increase in work engagement, which in turn leads to an increase in work performance. On the other hand, the health impairment process implies a relationship between job demands and burnout, leading to a decrease in work performance and employee health.

Regarding workaholism and burnout, the relationship between the two constructs is positive, and has been demonstrated by longitudinal studies. These studies indicate a positive association between weekly job demands and weekly burnout in employees who have high levels of chronic burnout (Bakker et al., 2022). Burnout is an occupational syndrome characterized by emotional exhaustion and depersonalization, which appears in the work context, and it includes four symptoms: exhaustion, mental distance, and cognitive and emotional impairment (Schaufeli et al., 2019). The exhaustion and lack of energy affect an individual's ability to regulate their cognitive and emotional processes, and the mental distance serves as a coping mechanism to reduce exhaustion. This mental distance works as an inefficient mechanism that impairs the employees' ability to distance themselves from work in order to reduce exhaustion (Schaufeli & De Witte, 2023).

The relationship between workaholism and work performance is controversial, since there is no consensus between authors. Currently, there are three different views on workaholism: a positive, negative, and an insignificant one. Depending on the view and definition of the concepts that are adopted by authors, the results can differ. According to a recent meta-analysis, the instruments that were utilized to measure the concepts moderate this relationship (Cheng & Gu, 2022). Specifically, working excessively and working compulsively are both not correlated with task performance, but they are positively correlated with contextual performance (Gorgievski et al., 2010). The present study operates with a different definition of workaholism, which takes into consideration different dimensions of workaholism. Also, performance was conceptualized as in-role performance, which entails completing the tasks that the individual has been assigned (Williams & Anderson, 1991).

The association between burnout and self-undermining is controversial because although the two concepts are associated positively (Bakker & Wang, 2019), the JD-R theory indicates that burnout could lead to maladaptive behaviors (like the ones characteristic of self-undermining) while also

supporting the idea that self-undermining is the one that contributes to the increase in the level of burnout. This confusion has been clarified by a recent longitudinal study, which indicates that burnout is the one that leads to the maladaptive behaviors that characterize self-undermining (Bakker et al., 2022). Self-undermining represents those behaviors that 'create obstacles that may undermine performance' (Bakker & Costa, 2014, p. 115). These behaviors could be inefficient communication, making mistakes, and instigating conflicts. All these behaviors can create new obstacles that require an individual's attention and energy. Burned-out employees tend to make more mistakes and communicate inefficiently, which generates work conflicts. This premise lies at the base of our argument that burnout and self-undermining could be the key to explaining the relationship between workaholism and work performance.

The relationship between workaholism and self-undermining has not been studied in recent years. However, based on the Conservation of Resources (COR; Hobfoll, 2001) theory, we can describe the loss cycle created by demands, burnout, and self-undermining. High demands lead to burnout, which leads to self-undermining, which in turn creates more job demands. Bakker, Xanthopoulou, and Demerouti (2022) show that job demands are most strongly associated with self-undermining in individuals with a high level of chronic burnout. This loss cycle, which is based on the COR theory (Hobfoll, 2001), is described in multiple studies (Bakker & Costa, 2014; Bakker et al., 2023). Bakker and Costa (2014) concluded that this cycle is strengthened by chronic burnout. Until now, the loss cycle has been studied through the lens of job demands, but we can also include personal demands in it. Therefore, we expect that workaholism, which represents a personal demand, predicts burnout, which in turn predicts self-undermining, which then creates more demands.

Self-undermining is negatively related to work performance, and it has been demonstrated by Bakker and Wang (2019) based on the JD-R theory. Moreso, Roczniowska and Bakker (2021) used a longitudinal design to analyze the relationship

between self-undermining and performance, and the effect self-regulation has on this relationship. The authors collected data from 81 medical nurses at three moments of the day (before work, while at work, and after work) through daily journals. In doing so, they discovered that the ability to self-regulate before work is negatively associated with self-undermining, and it indirectly predicts daily work performance, but only in individuals with a decreased level of burnout. This study further shows the complex relationships between burnout, self-undermining, and performance that need to be studied.

Although many studies have investigated workaholism in recent years, the relationships between workaholism, burnout, self-undermining, and work performance have yet to be included in one model. The goal of the current study is to explain the complex relationships between these concepts in the parsimonious model and understand the mechanism that links workaholism to performance. In the proposed model, this mechanism is represented by the two serial mediators: burnout and self-undermining. This way, we can establish the direct and indirect relationships between the two variables.

The objective of this study is to analyze the relationships between workaholism, burnout, self-undermining, on the one hand, and work performance, on the other hand. Based on the JD-R and COR theories, we conceptualize and test a model that looks at the complex relationships between all the above-mentioned variables. Additionally, the purpose is to explain the serial mediation roles of burnout and self-undermining in the relationship between the two variables, by testing a model that analyzes direct and indirect relationships. This model stipulates that workaholism positively predicts burnout, which positively predicts self-undermining, which in turn negatively predicts performance.

The present study brings several different contributions to the literature. Firstly, we used a new instrument to measure workaholism (Multidimensional Workaholism Scale ; Clark et al., 2020), considering four dimensions. This measure offers a more nuanced understanding of the phenomenon and allows us to analyze the motivational, cognitive, and emotional dimensions on the one hand, and the behavioral dimension, on the other. Secondly, we use a new instrument to measure burnout (Burnout Assessment Tool; Schaufeli et al., 2019). This instrument introduces a new definition of burnout, based on four distinct dimensions: exhaustion, mental distance, emotional, and cognitive impairment. One of the advantages of this instrument is that it assesses the syndrome itself (through a total score) as well as its core components (dimensions). Thirdly, we analyze burnout and self-undermining, in order to establish an indirect relationship between workaholism and work performance. The two variables could be the key to explaining the relationship between workaholism and work performance. Fourth, this study reveals the mediation role of burnout and/or self-undermining between workaholism and performance, separately and also as serial mediators. These relations are new in the literature, and our study adds value to this field.

Based on the JD-R and COR theories and previous research, the following hypotheses have been proposed:

Hypothesis 1. Workaholism is associated negatively with work performance.

Hypothesis 2. Burnout mediates the relationship between workaholism and work performance.

Hypothesis 3. Self-undermining mediates the relationship between workaholism and work performance.

Hypothesis 4. Burnout and self-undermining both mediate the relationship between workaholism and work performance.

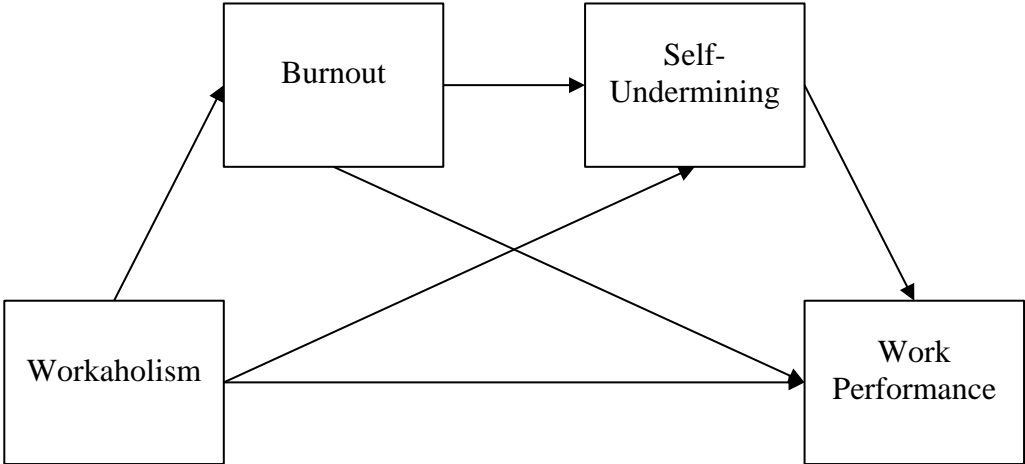


Figure 1. Hypothetical Model

2. Methods

2.1. Design

The present study is correlational. The predictor is workaholism, and the outcome is work performance. The mediating role of burnout and self-undermining was investigated to better understand the relationship between these two variables. A serial mediation model was tested.

2.2. Procedure

Data was collected from employees of different companies who received an online questionnaire and were asked to fill it out. The questionnaire was distributed on social media platforms using the snowball method. All participants were informed about the study's objective and risks and consented to participate. They were also informed that their participation is completely voluntary and they can withdraw at any point. Moreover, they were assured that their anonymity would be protected. To ensure that the participants were reading the items attentively, two control questions were included (for example: „If you are reading this item, select option 2 (disagree).”) in two different sections of the questionnaire. To be included in the study, participants needed to be employed, have at least six months of experience on that job, and answer at least one of the two control

questions correctly. Gender, age, and job seniority were measured to describe the sample.

2.3. Participants

Data has been collected from 186 participants. After excluding the participants who didn't have at least 6 months of experience on the job and the ones who answered incorrectly on both control questions, the sample consisted of 175 participants. 65.1% of participants were women, while men represented only 34.3% of the participants, and 0.6% identified with a different gender. Looking at the age, the sample consisted of people aged between 20-66 years old ($M = 41.86, SD = 13.67$). Most participants have a bachelor's degree (50.9%), while 30.3% have completed their studies after finishing university, 13.1% have graduated high school, and 5.7% have completed post-secondary studies. Participants had different experience levels, ranging from 6 months to 43 years ($M = 20.5, SD = 13.30$). Regarding their current place of employment, people had between 6 months and 42 years of experience ($M = 10.78, SD = 10.38$). 86.9% of the participants worked full-time, while 73.1% of them worked on-site, 20.6% had a flexible schedule, and 6.3% worked from home.

2.4. Instruments

Workaholism was measured using The Multidimensional Workaholism Scale (MWS; Clark et al., 2020). This scale contains 16 items that are divided into four subscales: motivation, cognition, emotion, and behavior. Participants were instructed to indicate their degree of agreement with every statement on a scale from 1 (*never true*) to 5 (*always true*). Examples of items are: “I work because there is a part inside of me that feels compelled to work.” or “When most of my coworkers will take breaks, I keep working.”. Cronbach’s α for this scale is 0.93, which indicates high fidelity.

Burnout was measured using the short version of the Burnout Assessment Tool (BAT; Schaufeli et al., 2019). This scale contains 12 items that measure four dimensions of burnout: exhaustion, mental distance, cognitive impairment, and emotional impairment. Participants were instructed to indicate their degree of agreement with every statement on a scale from 1 (*never*) to 5 (*always*). A couple of examples include: „At work, I feel mentally exhausted.” and „When I’m working, I have trouble concentrating.”. The scale presented a high level of fidelity (Cronbach’s $\alpha = 0.84$).

Self-undermining was measured using the Self-Undermining Scale (SUS; Bakker & Wang, 2019). This scale contains six items that measure dysfunctional behaviors that impede a person’s progress at work. Participants were instructed to indicate their degree of agreement with every statement on a scale from 1 (*never*) to 5 (*very often*). Some examples of items are: “I create confusion when I communicate with others at work.” and „I admit that I create conflicts.”. This scale presented a relatively good level of fidelity (Cronbach’s $\alpha = 0.68$).

Work performance was measured using the scale developed by Williams and Anderson (1991). The scale contains seven items that measure task performance. Participants were instructed to indicate how well they think they do certain tasks on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). A couple of examples include: „I fulfill responsibilities

specified in the job description.” or “I meet the formal performance requirements of the job.” The scale’s level of fidelity was slightly above the accepted limit (Cronbach’s $\alpha = 0.65$). The analysis indicated that there was a problematic item (“I engage in activities that affect my performance assessment directly.”). After removing said item, the scale’s reliability increased greatly (Cronbach’s $\alpha = 0.82$).

2.5. Data Analysis

The correlations between the study variables, namely workaholism, burnout, self-undermining, and work performance, were analyzed using Pearson correlation coefficients. Two-tailed correlations were calculated between all the variables of the study. The analysis was performed using the Statistical Package for Social Sciences (SPSS) v23 program. The adopted significance level was $p < 0.05$.

To test the serial mediation model, we used the PROCESS macro, which is an extension of SPSS. This meant using a bootstrapping procedure by Hayes (2022), using one predictor (workaholism), two mediators (burnout and self-undermining), and one outcome (work performance). The confidence intervals were calculated at 95% and were based on bias-corrected bootstrap analysis with 5000 repetitions to analyze indirect effects.

3. Results

Table 1 shows the correlation analysis between all variables and descriptive statistics. Workaholism correlated positively with burnout ($r = 0.26$, $p < .05$) and self-undermining ($r = 0.35$, $p < .001$). However, it did not correlate with work performance ($r = -0.03$, $p > .05$). Burnout correlated positively with self-undermining ($r = 0.51$, $p < .001$) and negatively with work performance ($r = -0.30$, $p < .001$). Finally, self-undermining also correlated negatively with work performance ($r = -0.32$, $p < .001$). Overall, medium and strong correlations can be observed among the variables in the model.

Table 1. *Correlations and Descriptive Statistics for the Variables Included in the Study*

Variable	1	2	3	4	M	SD
1. Workaholism	-				2.41	0.82
2. Burnout	0.26*	-			2.06	0.56
3. Self-undermining	0.35**	0.51**	-		1.83	0.47
4. Work performance	-0.03	-0.30**	-0.32**	-	4.49	0.51

Note: n = 175; **p* < .05, ***p* < .001

To begin with, the relationship between workaholism and work performance was analyzed. Table 2 shows that our first hypothesis is not supported by the data, specifically workaholism does not negatively correlate with, nor does it predict work performance (*b* = 0.07, *p* > 0.05). Next, we analyzed burnout as our first mediator for the relationship between workaholism and work performance. Workaholism was significantly related to burnout (*b* = 0.18, *p* < 0.01), and burnout was, in turn, significantly associated with work performance (*b* = -0.19, *p* < 0.05). Also, burnout mediated the relationship between workaholism and work performance (*b* = -0.03, 95% CI [-0.079, -0.003]). The results are in line with our second hypothesis and support this.

Further, we analyzed self-undermining as our second mediator for the aforementioned relationship. Workaholism was significantly related to self-undermining (*b* = 0.13, *p* < 0.001), and self-undermining was significantly associated with work performance (*b* = -0.28, *p* < 0.01). Moreover, self-undermining mediated the relationship between the two variables (*b* = -0.04, 95% CI [-0.084, -0.009]). Thus, the data supports our third hypothesis.

Finally, the total indirect effect was negative. The sequential indirect effect of workaholism on work performance, through burnout and self-undermining, respectively, was significant (*b* = -0.02, 95% CI [-0.043, -0.004]). Thus, the data support our fourth hypothesis.

Table 2. *Direct and indirect effects of the mediation model (PROCESS)*

Variables	Coeff.	SE	<i>p</i>	BC Bootstrap 95% CI		
				LLCI	ULCI	
The direct effect of:						
MWS->PM	0.07	0.05	0.145	-0.02	0.16	
MWS->BAT	0.18	0.05	0.001	0.08	0.28	
MWS->SUS	0.13	0.04	0.000	0.06	0.21	
BAT->PM	-0.19	0.08	0.016	-0.34	-0.04	
BAT->SUS	0.38	0.05	0.000	0.27	0.49	
SUS->PM	-0.28	0.09	0.004	-0.46	-0.09	
The indirect effect of:						
MWS->BAT->PM	-0.03	0.02		-0.08	-0.00	
MWS->SUS->PM	-0.04	0.02		-0.08	-0.01	
MWS->BAT->SUS->PM	-0.02	0.01		-0.04	-0.00	

Note. n = 175; MWS = workaholism; BAT = burnout; SUS = self-undermining; PM = work performance;

4. Discussion

This study examined the direct and indirect effects of workaholism on work performance. Based on JD-R and COR theories, the indirect effect was investigated by testing the serial mediation effect of burnout and self-undermining on the relationship between workaholism and performance.

Firstly, we found that workaholism does not directly correlate with work performance. This is not surprising, given that the relationship between these two concepts still needs to be clarified. On the one hand, these results do not align with some of the past research that found a negative correlation between the two (Van Beek et al., 2013). On the other hand, some authors have stated this

relationship's insignificance (Clark et al., 2016; Balducci et al., 2021). There are two possible alternative explanations for this result. According to Cheng and Gu's meta-analysis (2022), the instrument used to measure these variables moderates the relationship between them. This is especially relevant in this case since we used a new measure of workaholism, which uses a different operationalization of the concept. Another explanation is given by Hockey (1997), who states that work performance might not be affected by stress or high workload because the individual implements compensatory behaviors. For example, even though the individual continues to perform, he feels the consequences of workaholism at a psychological or physical level.

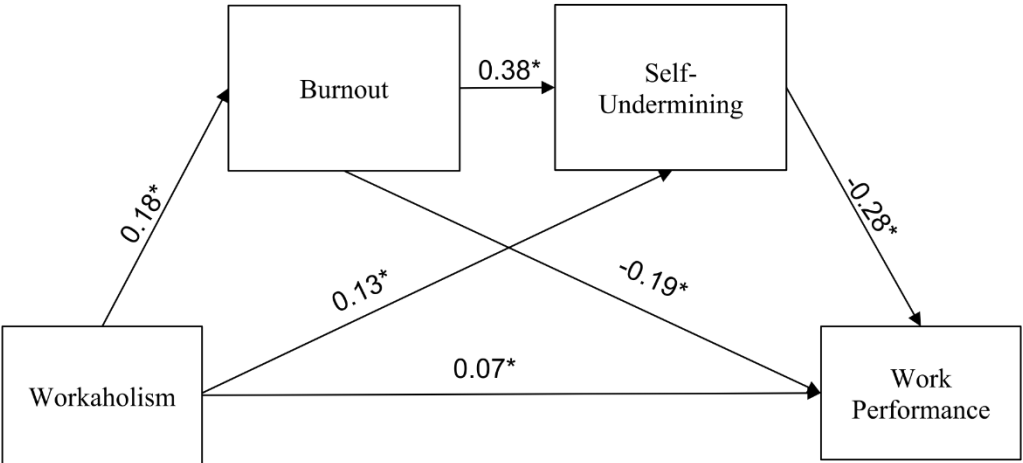


Figure 2. Tested Model

Secondly, burnout mediated the relationship between workaholism and work performance. This means that employees who feel compelled to work because of internal pressures, having persistent and frequent thoughts about work when not working, tend to experience high levels of exhaustion, mental distance, and cognitive and emotional impairment, which lead to a decrease in work performance. So, burnout, as a form of well-being, mediates the relationship between workaholism, as a personal demand, and work performance. During our literature search, we did not find any studies that tested burnout as a mediator in this relationship, and our

research added value to the literature and put light on the new role of burnout – as a mediator - in the relationship between workaholism and performance. Moyer and colleagues (2017) revealed that workaholic tendencies are a predictor of burnout. According to the COR theory, stress results when employees experience a loss or threat of a loss. Workaholics invest an excessive amount of time and energy into their work, reduce their participation in recovery activities, and are often left feeling burnt out (Schaufeli et al., 2009). The relationship between burnout and job performance has been demonstrated meta-analytically in time

(Corbeanu et al., 2023; Taris, 2006). According to the authors, there is a relation between all three dimensions of burnout and job performance, but it is moderated by the instrument used to measure burnout. This study uses a different operationalization of burnout, a new approach that includes dimensions such as exhaustion, mental distance, and cognitive and emotional impairment, but the relationship remains significant and negative.

Thirdly, self-undermining mediated the relationship between workaholism and work performance. Hence, employees who tend to excessively work and therefore lack sufficient time and resources to recovery after work also tend to engage in self-undermining behaviors, such as creating confusion and conflicts, which leads to decreased work performance. The mediator role of self-undermining has not been studied before, and although neither has been the negative link between workaholism and self-undermining, our findings are in line with the assumption at the base of the COR theory (Hobfoll, 2001). The theory describes a loss cycle created by high demands. Our results suggest that we could also include personal demands in this cycle. In particular, a personal demand, like workaholism, leads to high levels of burnout, which in turn creates more self-undermining behaviors. Consequently, these behaviors create more demands. The relationship between self-undermining and work performance is negative, as expected, and the results are in line with previous findings (Bakker & Wang, 2019).

Finally, burnout and self-undermining mediated the relationship between workaholism and work performance serially. This serial mediation model has not been studied before. Taking that into consideration, the results are as we expected. Specifically, employees who often continue to work despite potential negative consequences become exhausted and start mentally distancing themselves from their work and can even suffer from cognitive or emotional disorders. Therefore, they start engaging in self-undermining behaviors (such as creating stress and confusion at work), which leads to a decrease in work performance. Based on the JD-R theory, workaholism positively

predicted burnout (Bakker et al., 2022), burnout positively predicted self-undermining behaviors (Bakker & Wang, 2019; Bakker et al., 2022), according to the COR theory, which in turn negatively predicted work performance (Bakker & Wang, 2019). This shows that workaholism does, in fact, indirectly predict work performance.

Theoretical and Practical Implications

A study such as this one brings different contributions to the theory and practice of organizational psychologists. The first contribution is to the JD-R theory because this study introduces burnout and self-undermining as simple mediators but also serial mediators in the relationship between workaholism and performance. Thus, it underlines the relationship between a personal demand (workaholism) and a maladaptive strategy (self-undermining), mediated by burnout, confirming the loss cycle according to the COR theory (Hobfoll, 2001). In other words, working excessively and compulsively leads to experiencing symptoms of burnout, which in turn leads to engaging in self-undermining behaviors. Our second contribution to the JD-R theory is the analysis of the relationship between self-undermining and work performance. Self-undermining represents behaviors that may undermine performance, and as it turns out, there is a negative relationship between the two. Specifically, employees who engage in self-undermining behaviors tend to make mistakes, create conflicts at work, and not communicate efficiently. This affects their ability to finish their tasks and to work with others, which in turn leads to a decrease in work performance.

The practical contribution this study brings is in the field of recruitment and selection. Based on the relationships between the variables in the model, measuring workaholism is essential in selection. This can facilitate the identification of those individuals whose behaviors could be damaging to their well-being and their work performance. This underlines the importance of measuring workaholic tendencies in the selection process. In cases where high scores of workaholism can be observed, the candidates

can be eliminated from the selection process. This leads us to our second contribution, which is based on the fact that we used a new workaholism measure developed by Clark and colleagues (2020). This instrument would be useful in a selection context, because it uses a multidimensional model that offers a more nuanced approach to workaholism, measuring the motivational, cognitive, emotional, and behavioral components of the construct. The third practical contribution relates to improving employees' well-being and performance. After identifying the relationships between workaholism, burnout, maladaptive behaviors, and performance, we can focus our attention on finding ways to combat the negative effects. This way, companies can collaborate with experts in order to develop workshops with psycho-educational content that focus on recognizing the signs and symptoms of workaholism, burnout, and self-undermining. Once employees learn to recognise the problem, they can focus on solving it. Van Gordon and his colleagues (2017) developed an intervention for workaholics based on awareness, and they observed an improvement in symptomatology, work satisfaction, and work engagement. In addition, they found that the individuals started investing less time in their work without their performance decreasing. Regarding burnout, a meta-analysis looked at the effect four different types of interventions had on a general burnout score, and the three dimensions of the construct – exhaustion, depersonalization, and personal accomplishment (Maricuțoiu et al., 2014). The results indicated that the interventions had a statistically significant and small effect on the general burnout score and the exhaustion dimension. Moreover, three of the four types of intervention seemed to have a significant effect on exhaustion. Interventions based on relaxation techniques were the most effective, followed by interventions aimed at developing work-related skills and CBT-based interventions (Maricuțoiu et al., 2014). Employers need to identify the people at risk for burnout, and then provide them with resources to help decrease their level of stress. Roczniewska and Bakker (2021) suggest that self-undermining

behaviors are a sign to look for when trying to identify individuals at risk. The authors found that the capacity to self-regulate before work is negatively related to self-undermining behaviors and that chronic burnout moderates this relationship. This means that self-regulation strategies might be the key to dealing with self-undermining behaviors at work.

Limits and Suggestions for Future Research

The results of this study should be analyzed while considering several limitations. Most importantly, we cannot draw any causal conclusions in this research because the correlational design does not allow us to make any inferences about which behavior precedes the other. Longitudinal studies need to be conducted in order to shed some more light on the complexity of the relationship between workaholism and performance via burnout and self-undermining. Additionally, since there is no consensus between authors regarding the direct relationship, further research should focus on identifying other potential mediators, as well as establishing the order in which the two appear, in order to clear up some of the confusion.

Another limitation of this study is represented by the fact that the data is self-reported. It is essential for some data to be collected directly from the participants because we are interested in how they perceive themselves. For example, it is helpful to use self-report questionnaires when we're talking about workaholism and burnout. However, when it comes to self-undermining behaviors and work performance, another individual's point of view could prove to be relevant. An individual's colleagues can tell us more about certain self-undermining behaviors that they engage in. Moreover, colleagues or supervisors can offer us more information about an individual's work performance. Future studies could incorporate some more objective measures of the aforementioned variables.

Conclusion

In conclusion, the data supports the model that we analyzed. Specifically, the relationship between workaholism and work performance is serially mediated by burnout and self-undermining. This means that high levels of workaholism predict high levels of burnout, which predicts a high frequency of self-undermining behaviors, which in turn predicts a decrease in in-role work performance. These results suggest that we need effective ways of dealing with the consequences of workaholism before it can negatively affect the individual's physical and psychological health and performance at work.

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RESEARCH ARTICLE

Narcissism and self-enhancement: An underestimated relationship'

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Abstract

For decades, scholars have argued that self-enhancement and narcissism are closely related. However, more recently it has been argued that this relationship is overestimated. The current paper presents a conceptual analysis which, to the contrary, suggests that it is more probable that the relationship has been underestimated. It is proposed to differentiate between six versions of how self-enhancement can be related to narcissism: increase of classical self-enhancement, modesty refutation, defensive self-enhancement, denying self-enhancement, overshooting compensatory self-enhancement and suppressed compensatory self-enhancement. All six are consistent with the definition that self-enhancement represents a “tendentiously favorable view of oneself”. A combination of three parameters should be used to appropriately characterize which version of self-enhancement is related to narcissism in a setting, two correlations (between self-rating of an attribute and narcissism; between an objective measure of the attribute and narcissism) and one discrepancy measure (difference between self-rating and objective measure). Moreover, it is shown why a recently proposed data analytic strategy, the application of conditional regression analysis, leads to an underestimation of the relationship between narcissism and self-enhancement because it only captures two of these six versions. Finally, it is discussed how the distinction of versions of self-enhancement as related to narcissism could contribute to a better understanding of the effects of self-enhancement in narcissists.

Keywords

narcissism, self-enhancement, self-view. Modesty, discrepancy measure

Self-enhancement as a psychological phenomenon has attracted the interest of scholars in various areas of psychology. For example, there is an ongoing debate on the relationship of self-enhancement and mental health (cf. Kwan et al., 2008; Sedikides et al., 2004), on the extent and implications of self-enhancement for self-ratings of job performance (cf. Heidemeier & Moser, 2009) or on the determinants and effects of self-enhancement in job applicants (cf. Paulhus et al., 2013). As another example, some personality variables are often assumed being

related with self-enhancement, most notably, with narcissism (Campbell & Campbell, 2009). Finally, if self-enhancement is a phenomenon related to many important outcomes, it might even be evidence for a maybe problematic component of human nature (Sedikides & Gregg, 2008). But of course, if we aim at understanding the extent, the causes, and the effects of self-enhancement, we need clear and convincing definitions and operationalizations.

In the following, I will first recapitulate why a mere correlation between self-view and

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narcissism is no sufficient evidence for a relationship between self-enhancement and narcissism and then introduce six versions of how the two can be related. In order to determine which version exists in a specific situation, three parameters have to be taken into account, two correlations (between self-rating of an attribute and narcissism; between an objective measure of the attribute and narcissism) and one discrepancy measure (difference between self-rating and objective measure). Thus, three usual methods to analyze data (correlating difference scores, residualization, conditional regression analysis) are not sufficient and, more importantly lead to the underestimation of the extent to which self-enhancement is related to personality in general and narcissism in particular. Finally, the distinction of six versions can also contribute to a better understanding of how and why self-enhancement continues to be related to narcissism.

Self-enhancement and Narcissism

At its core, “self-enhancement involves taking a tendentiously favorable view of oneself” (Sedikides & Gregg, 2008, p. 102). In other words, the self-view is favorable *and* it is biased. One criterion for favorableness can be a self-view that is “positive”, methodologically speaking beyond the midpoint of a scale ranging from negative to positive. However, additional evidence for a *bias* is necessary. A positive self-view is not evidence for self-enhancement if it is, for example, common that people rate themselves above the midpoint of a scale. This is, for example, usual in ratings of self-esteem, life satisfaction, job satisfaction, or self-ratings of job performance. Another criterion for favorableness of a self-view is, that it is, compared to others’ self-views, more positive or “above average”. Ratings that use such a social comparison instruction seem to include such an information of biasedness, at least in the aggregate. In fact, the “better-than-average” effect (BTAE) has been discussed as an example of self-enhancement because *most respondents* show this effect (Zell et al., 2020). The usage of social comparison instructions has, however, an important drawback. Though

the BTAE shows that self-enhancement exists, we cannot rule out that a *specific individual* does *not* self-enhance though the self-rating is slightly or even considerably above average. The reason is that the real performance or ability of this individual *is* above average. The complications with the interpretation of the BTAE are well-known (see Zell et al., 2020) and thus scholars interested in the relationship between self-enhancement and individual differences recommended to use another criterion for bias, most commonly another rating source or some objective measure. This means that the extent of self-enhancement is defined by a *difference score*.

One important personality variable related to self-enhancement is narcissism. In its sub-clinical (i.e., non-pathological) version, narcissism has been defined as a “... self-centered, self-aggrandizing, dominant, and manipulative interpersonal orientation” (Sedikides et al., 2004, p. 400). Narcissism has been linked to self-enhancement so strongly that scholars have argued that in order to study self-enhancement one of the most suitable ways is to study narcissism (e.g., Campbell & Campbell, 2009). The narcissist has even been called the “self-enhancer personality” (Morf et al., 2011).

In the here following, I will consider the example of self-ratings of task performance as related to narcissism. However, comparable assumptions can be made for abilities, skills, social status, positive behaviors (for ex. making creative suggestions), and health. In addition, a “self-rating” could also be called a “self-view”. In order to show that self-enhancement is related to narcissism, some conditions must hold. At first sight, we might expect a positive correlation between narcissism and a self-rating of performance. However, as previously mentioned, the mere positive correlation between narcissism and self-rated task performance is no sufficient evidence for self-enhancement because we cannot rule out that people high compared to those low in narcissism *really* perform better in a specific task, and thus that the correlation results from accurate self-ratings. An example might be creating favorable first impressions in strangers, a task in which people high in narcissism are more successful than those low

in narcissism which means that a correlation between narcissism and the self-rated performance in making favorable first impressions is no evidence for self-enhancement. This is why a discrepancy score between a measure of self-view (for ex. a self-rating of task performance) and a criterion (for ex. a measure of objective task performance) is needed. These discrepancy scores are usually computed as either algebraic differences between self-rating and criterion or residuals of the regression of the self-ratings on the criterion scores. Self-enhancement is then defined such that the self-rating is *higher* than deserved or true. And this difference is assumed to be correlated with narcissism.

Up to this point, the usual and probably intuitive understanding of how narcissism is related to self-enhancement has been described. However, as we will see in the following paragraphs, the constellation just described is only one of a number of different versions of how narcissism can be related to self-enhancement. For example, the definition of self-enhancement only mentions “a tendentiously favorable view”, and does not include a specific criterion for “favorable”. In the following, I propose to further differentiate up to six versions of self-enhancement as related to narcissism (see figures 1 - 3).

The figures show various hypothetical constellations in which narcissism is correlated with both a self-rating and an

objective measure of task performance. Only the regression lines are depicted. It is also assumed that data for the two performance measures, the self-rating and the objective measure, are collected with comparable scales.

Classical Self-enhancement and Self-effacement

The most straightforward description of a relationship between self-enhancement and narcissism seems to require the fulfillment of three conditions. First, a positive correlation exists between the self-rating of performance and narcissism. Second, a positive correlation must exist between the difference of self-rated performance and objective performance with narcissism. More formally stated, $\alpha_1 > 0$ (see figure 1). In other words, we have to exclude that the increase of self-rated performance is accurate because narcissism is respectively correlated with objective performance. Note that there might exist a certain positive relationship between objective performance and narcissism (see line b in figure 1) though $\alpha_2 > 0$ must still hold. Third, it is usually assumed that the difference between the self-rating of performance and objective performance must be positive. In other words, the line for self-rating must lie above the line of objective performance.

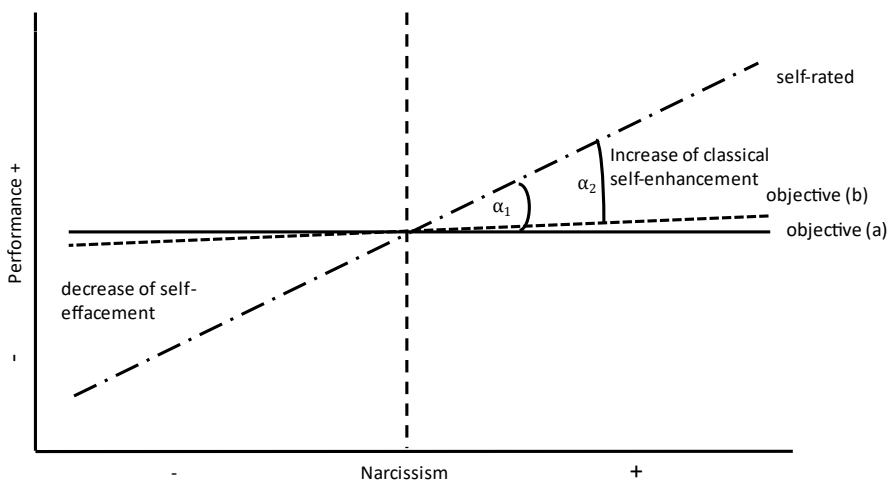


Figure 1. Classical self-enhancement and self-effacement

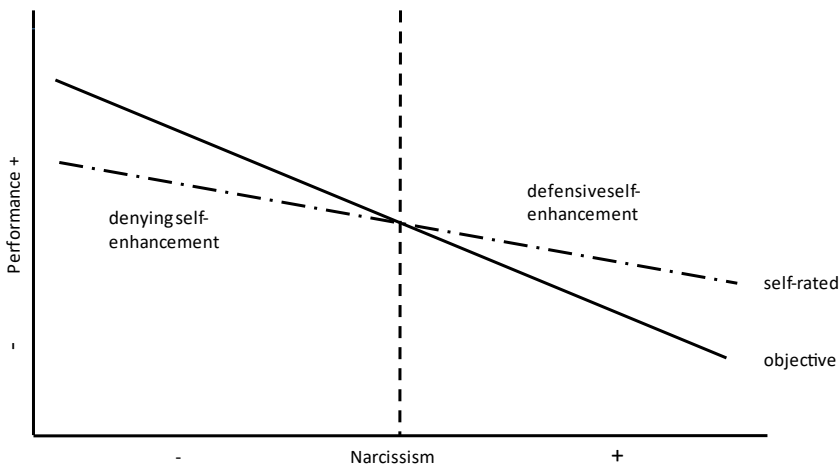


Figure 2. Defensive and denying self-enhancement

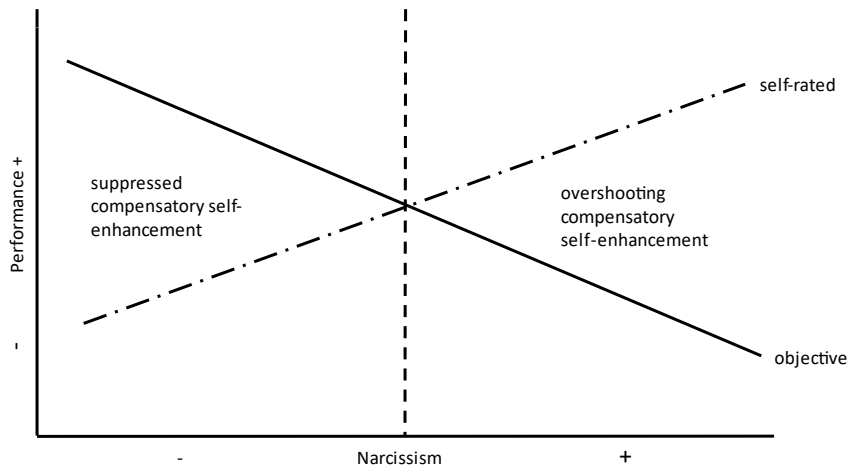


Figure 3. Overshooting and suppressed compensatory self-enhancement

At a first glance, if the difference is negative as on the left side of figure 1, this represents decreasing self-effacement that correlates with narcissism. However, it is still appropriate to call this evidence for a relationship between self-enhancement and narcissism for two reasons. First, there might exist a general norm to underrate one’s performance. In that case, we could say that the left side of figure 1 also describes the tendency of narcissists to have an increasing “favorable self-view”. Note, that the exact meaning of “favorable” depends on the context, it not only says that the self-view is “overtly positive” but it can also only mean that it is more positive *than others’* self-views

and thus might only be less negative (or less modest) than usual. Second, the measurement of “objective performance” can be a problem of a specific context leading to comparably lower mean self-ratings in general. In fact, many criteria are measures on rating scales and therefore we cannot be sure how self-ratings compare with other-ratings in specific settings. In sum, the third condition, i.e., a *positive* difference between the self-rating of performance and objective performance, must not hold for the existence of a relationship between narcissism and self-enhancement. I propose to call the version on the left side of figure 1 as “modesty refutation”.

Defensive and Denying Self-enhancement

In this section, it is shown that it is even not necessary to find a *positive* correlation between narcissism and self-rating in order to observe a positive relationship between narcissism and self-enhancement. This is demonstrated in figure 2. A negative slope of the self-rating that is yet less steep than the negative slope for objective performance indicates a special version of self-enhancement as related to narcissism, because the difference between self-rating and objective performance is still correlated with narcissism. This constellation is proposed to be called “defensive self-enhancement”. Importantly, it still satisfies the two conditions that the self-rating is favorable and that it is biased. At least, it is more favorable than it should be, given the general negative correlation between narcissism and objective performance. Consider the example of gaining peer acceptance as a performance dimension. It has been found that narcissists become aware that they lose acceptance over time among their peers (Carlson & DesJardins, 2015). We can assume that they might somehow take that into account in their self-ratings of peer acceptance. However, this could still happen to an insufficient degree and the size of this discrepancy can be correlated with narcissism. Defensive self-enhancement could also be rephrased as an inclination to admit a weakness, though to an insufficient degree.

The case of denying self-enhancement on the left side of figure 2 is again comparable to version 2 (see table 1). Again, there might exist a general norm of self-effacement, for example for self-ratings of popularity. Though again even narcissists could acknowledge that the norm exists and that it should be followed, they can still be expected to tend to bias their self-ratings upward.

Compensatory Self-enhancement

The combined positive slope of self-rated performance on narcissism *and* a negative slope of objective performance on narcissism creates two cases of compensatory self-enhancement. If the self-rating is higher than

objective performance, that can be alternatively called overshooting self-enhancement (see the right side of figure 3). A hypothetical example is acting fair towards employees as a supervisor which might not only be (more and more) overrated by narcissistic supervisors but that might actually at the same time decrease with an increasing amount of narcissism. Note, that if the regression line for objective performance is above the regression line for self-ratings, it also describes compensatory self-enhancement (see left side of figure 3) though in a more suppressed version because the self-rating remains below the criterion score. One might question the assumption whether this still represents to *have* a “tendentiously favorable view” though we could in any case call it evidence for a tendency in narcissists to *aim* at a more and more favorable view.

In sum, the three figures also include (see the dotted lines) information on the intersection of the two regression lines. This means that the levels of both the self-rating and of the objective performance are of interest. Whether the measures in use allow the computation of this point of intersection depends on their equivalence. If there are ratio scales, it might be an advantage. For example, we could ask chess players to rate their performance (expressed in a score that results from a combination of the number of points achieved and the score of their opponents) in a previous tournament and compare this self-rating to their actual scores in the tournament. However, other scale types might also be usable, for example self-ratings of grades can be compared with objective grades received in college, and even scores on personality scales that are based on either self-ratings or observer ratings might be used if the items are equivalent.

Conditional Regression Analysis

Recently, a methodological approach has been proposed that assumes comparably strict conditions for finding a relation between narcissism and self-enhancement, conditional regression analysis. The authors (Mielke et al., 2021) propose the following linear regression model:

$$(1) \text{ narcissism} = c_0 + c_1 \times \text{self-view} + c_2 \times \text{criterion} + e$$

Equation 1 describes that narcissism is predicted by a constant (c_0), an error term (e), and, in particular, the self-rating (or “self-view”) and the criterion, both with respective weights (c_1 and c_2). Moreover, according to Mielke et al. (2021) both $c_1 > 0$ and $c_2 < 0$ must be fulfilled. That is, there must be a positive relation between the self-view and narcissism *and* a negative relation between the objective criterion and narcissism. This is what has been depicted in figure 3. Of note, these authors do not further discuss the sign of the difference between the self-rating and the criterion though these two kinds of constellations can have considerably different effects (see again figure 3).

If discrepancy scores are computed and interpreted, one often discussed problem exists: The discrepancy score receives a specific interpretation and is then related to a third variable though it cannot be ruled out that this relationship can be explained by solely one of the two compounds of the discrepancy scores. For example, a discrepancy between an expectation of an event and the subsequent quality of occurrence has been called “unmet expectation” and related to a subsequent affect, for ex. satisfaction with the event (see Irving & Meyer, 1999). However, if one analyzes the components separately, it often turns out that the respective effect is completely determined by one of the two components, usually the second (Edwards, 1994). This, however, does not mean that the difference score is *not* related to the third variable, but that the relationship results from only one of the two components as far as its effects on the third variable are of concern. In a similar vein, self-enhancement is a difference score that is (or might be) related to a third variable (here: narcissism) and we can ask whether this results from exclusively one component. Again, this might be true *but* still would not mean that the effect of the difference does not exist but rather that it could be *explained* in a specific manner. In fact, we can imagine two special cases. First, subjects are told to work on a task and they might be not able to influence the quality of the result, yet they might still tend to rate their

performance as more or less good depending on their narcissism. This self-rating of performance, which we can also call their “self-view”, is correlated with narcissism and it is this component of the discrepancy between task performance and self-rating that explains why self-enhancement and narcissism are related (see figure 1, right panel). Second, subjects are told to work on a well-learned task. We can expect that all of them will rate their performance as high. However, if there is some special interference introduced, for ex., it might turn out that those low in narcissism perform worse. This time, self-enhancement and narcissism would be related because of the correlation of narcissism with the criterion (see figure 2, right side).

The logic of conditional regression analysis is different. In particular, Mielke et al. (2021) assume that if $c_1 > 0$ but $c_2 = 0$, this is only an instance of “mere” positivity of self-view, whereas I argue that this is evidence for a self-enhancement effect as related to narcissism. Why this disagreement?

To start with, it is actually true that, for ex., a mere correlation of self-esteem and narcissism is no evidence for a self-enhancement effect. But the reason is that for this example, that is: self-esteem, there simply exists no criterion and thus no estimate for c_2 . To our knowledge, there simply exists no criterion to validate the accuracy of a self-esteem rating, it is, so to say, simply there. However, in order to define self-enhancement, “self-view” *must* be related to a criterion because otherwise it would not be possible to compute a difference score, and, more importantly, there exists no indicator of bias.

Another explanation for the assumption that $c_1 > 0$ and $c_2 = 0$ are supposedly no sufficient conditions for evidence that narcissism is related to self-enhancement is presented in Humberg et al. (2018). Herein, a strict distinction between “self-enhancement” and “positive self-view” is made. More importantly, Humberg et al. (2018) emphasize that usually, the effects of self-enhancement and of positive self-view cannot be *differentiated* if self-enhancement is defined

by means of a difference score. In brief, this is true because self-enhancement is a compound of two measures, and we cannot be sure whether any relationship with a third variable can alternatively be explained by only one of the compound variables being related with that third variable. However, they then continue that it is not possible to demonstrate “true self-enhancement” if there is “only an effect of the self-view”. It seems that here a *lack of knowledge about an effect* (here: c_2) is equated with a *lack of an effect*. However, we should draw a distinction between the existence of self-enhancement and the contribution of the components to self-enhancement. Instead, Humberg et al. (2018) and Mielke et al. (2021) require that $c_1 > 0$ and $c_2 < 0$. This is, however, a special constellation I presented in figure 3. If we have no knowledge on c_2 (= the criterion-narcissism-relationship), it is not possible to draw a valid conclusion from $c_1 > 0$ (= the self-view-narcissism-relationship). This lack of evidence is however not the same as the evidence of a lack of a relationship between the criterion and narcissism.

To wrap it up, conditional regression analysis requires strict conditions for the existence of a self-enhancement narcissism relationship, in our terms it tests for “compensatory self-enhancement”. However, a relationship between self-enhancement and narcissism can also exist if $c_2 = 0$ and, moreover, as figure 2 shows, it can even exist when $c_1 < 0$. Changes of difference scores represent what self-enhancement as related to a personality trait means and they are, for example, correlated for the data on the right sides of figures 1 to 3. However, these correlations do not indicate which of the self-enhancement tendencies exists in a specific data set. Moreover, I am afraid that scholars usually expect that there must be positive correlations between self-ratings and narcissism, which however is not always necessary (see figure 2).

All in all, up to combinations of three parameters (see table 1) should be taken into account in order to make sure that the extent and type of self-enhancement correlated with a personality variable, for example, narcissism, is appropriately estimated. In particular, conditional regression analysis leads to an underestimation of the extent to

which self-enhancement and narcissism are related.

Discussion

The nature and the effects of self-enhancement have attracted the interest of scholars in various areas of psychology. In particular, self-enhancement might be related to mental health, the accuracy of self-ratings of job performance, or applicant ratings of interviewers in the job application process. Most importantly, self-enhancement seems to be related to narcissism (Campbell & Campbell, 2009). The current discussion paper showed that the application of usual methods to test the relationship between narcissism and self-enhancement are not able to capture all six versions how self-enhancement might be related with narcissism. For example, the residualization technique primarily aims at “classical self-enhancement” whereas conditional regression analysis is only interested in compensatory self-enhancement. In sum, I proposed to differentiate six versions of self-enhancement as related to narcissism. In order to determine the version, three parameters must be taken into consideration, two correlations (between self-rating of performance and narcissism; between objective performance and narcissism) and one discrepancy measure (difference between self-rating and objective measure of performance). All six versions are consistent with the definition that self-enhancement is a “tendentiously favorable view of oneself” (Sedikides & Gregg, 2008, p 102).

A clarification of what inclinations to self-enhance can mean and how exactly they might be related to narcissism is important for different reasons. First, the extent to which self-enhancement is related to narcissism has probably been underestimated in previous research. As an example, decreasing self-effacement can be related to narcissism in cases in which there exists a general norm to be modest such that self-ratings should be lower than ratings from supervisors, a norm that seems to exist in certain cultures (see Heidemeier & Moser, 2009). Second, the distinction of six versions of how self-enhancement can be related to narcissism is

also important because they might have different effects, for ex. on reputation or likability of people high in narcissism. In particular, some analysis methods do not distinguish between an overt increase of self-enhancement and a self-enhancement that results from a decrease of self-effacement as related to narcissism. This is an important distinction because on the level of individual encounters, people might experience an overt high self-enhancement in narcissists as more repulsive than a lack of self-effacement. As another example, for observers, a distinction between the two kinds of compensatory self-enhancement might again be important because an overshooting compensatory kind of self-enhancement might be more salient than a suppressed one. In fact, observers might be sometimes misguided in attesting self-enhancement because they could tend to weigh the difference between self-rating and criterion as most important.

As a final note, analyzing and finding a relationship between self-enhancement and personality does *not* mean that I assume that individuals with a respective personality tend to self-enhance *in a negative way*. Rather, self-enhancement is primarily meant as a variable that describes individual differences in the tendency in people to rate themselves as tendentially favorable. Whether some parts of this tendency are, for example, not only related to personality but also to mental health or whether they are related to the individuals' integrity or honesty is an issue that goes beyond the scope of the current paper.

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PUBLISHING STANDARDS

Psychology of Human Resources – guide for authors

THE EDITORS

This document represents the “Guide for Authors”. It covers the format and language to be used for manuscripts submitted to Human Resources Psychology. Also, this document can be found on the webpage of the Romanian Association of Industrial and Organizational Psychology (www.apio.ro).

This “Guide for Authors” follows the 7th APA Publication Manual.

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All manuscripts for the journal Human Resources Psychology should be submitted to the following e-mail address: revista@apio.ro.

To edit the manuscript please use Times New Roman 12-point type, 1.5 line spacing and the A4 page setting. Each page will be numbered in the upper right corner. The top and side margins should be left of at least one inch or 2.54 cm. A full example of a manuscript can be found in the 7th APA Publication Manual.

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Accepted papers are copy-edited and retyped. Authors have to review edits and proofread their work. The editor of Human Resources Psychology will contact the corresponding author after the editor assigns your work to an issue.

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Front Page

The first page of the manuscript should include the following information:

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The title should be a concise statement of the main topic and should identify the variables or theoretical issues under investigation and the relationship between them. It should be typed in sentence case, centered between left and right margins, and positioned in the upper half of the page.

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Author name(s) will be presented in the following form: first name, middle initial(s), and last name.

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This section should include the following:

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The abstract as well as the title of the work go on page 2. The abstract should be no longer than 150 words. The label *Abstract* should appear in sentence case, centered, at the top of the page. Type the abstract itself as a single paragraph without paragraph indentation. Place a running head (short title).

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Discussion

This section evaluates and interprets the implications of the results, especially with respect to original hypotheses. Examine, interpret, and qualify the results and draw inferences and conclusions from them. Emphasize any theoretical or practical consequences of the results.

Also, the limits of the study and possible future studies can be considered in this section.

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