Paying gratitude forward at work
Kersten, Amber; van Woerkom, Marianne; Kooij, Dorien; Bauwens, Robin

Published in:
Journal of Personnel Psychology

DOI:
10.1027/1866-5888/a000296

Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

Link to publication in Tilburg University Research Portal

Citation for published version (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 14. Oct. 2023
Paying Gratitude Forward at Work: How Work-Specific Gratitude Can Affect Burnout Through Interpersonal Helping Behavior

Amber Kersten, Marianne van Woerkom, Dorien T. A. M. Kooij, and Robin Bauwens
Online First Publication, November 22, 2021. http://dx.doi.org/10.1027/1866-5888/a000296

CITATION
Paying Gratitude Forward at Work
How Work-Specific Gratitude Can Affect Burnout Through Interpersonal Helping Behavior

Amber Kersten1, Marianne van Woerkom1,2, Dorien T. A. M. Kooij1, and Robin Bauwens1

1Department of Human Resource Studies, School of Social and Behavioural Sciences, Tilburg University, Tilburg, The Netherlands
2Center of Excellence for Positive Organizational Psychology, Department of Psychology, Education and Child Studies, Erasmus University Rotterdam, The Netherlands

Abstract. Since workers are increasingly suffering from burnout, there is a need for insights into how burnout can be decreased to improve subjective well-being. The broaden-and-build theory proposes that gratitude increases well-being through an upward spiral. Few studies have examined whether gratitude decreases burnout and what mediating behaviors explain this relationship. Using an international sample of employees (N = 353), this study examines whether work-specific gratitude negatively relates to exhaustion and disengagement. Additionally, since gratitude stimulates helping through upstream reciprocity, this study investigates whether interpersonal helping behavior (IHB) mediates these relationships. Our study showed a negative effect of work-specific gratitude on disengagement and exhaustion and a negative relationship between work-specific gratitude and disengagement, mediated by IHB, suggesting that gratitude stimulates IHB, thereby alleviating disengagement.

Keywords: gratitude, burnout, interpersonal helping behavior, employees, positive psychology

Over the past 30 years, an increasing incidence of burnout has been reported across occupational groups (Aguilera et al., 2021). Burnout occurs when stressors persist over time and has been found to consist of two main dimensions: disengagement and exhaustion. Disengagement refers to “distancing oneself from one’s work in general, work object, and work content” (Demerouti et al., 2010; p. 211) and is seen as a continuum ranging from disengagement to dedication. Exhaustion is defined as “a consequence of intensive physical, affective and cognitive strain” (Demerouti et al., 2010; p. 210) and ranges from exhaustion to vigor. Whereas Maslach et al. (1986) initially distinguished efficacy as a third dimension of burnout, more recent studies pointed out that this dimension is less central compared to the two other dimensions (Demerouti et al., 2010; Lee & Ashforth, 1996).

Burnout has been found to have negative consequences for both individual workers and organizations, such as resource depletion, absenteeism, decreased performance, or higher turnover (AbuAlRub, 2004; Maslach et al., 1996). Therefore, a growing body of literature has focused on the factors that may decrease burnout (Danna & Griffin, 1999). To this end, the broaden-and-build theory of positive emotions by Fredrickson (2001) has been used to study the relationship between positive emotions and burnout. This theory proposes that positive emotions activate a spiral of optimal functioning by triggering a broadened scope of attention, which generates a framework in which resources and skills are built that help to cope with negative experiences (Fredrickson, 2001). In line with this, negative relationships between positive emotions and symptoms of burnout have been demonstrated (e.g., Basinska et al., 2014).

One particularly important positive emotion in this regard is gratitude, which is seen as a social emotion that explains unique pathways to reduced stress experiences (Lambert et al., 2012; Wood et al., 2010). Emmons and Mishra (2011) emphasize the social nature of gratitude by defining it as an experience of “acknowledgement that we have received something of value from others” (p. 248). Gratitude may arise in the context of different life domains such as family or work (Allemand & Hill, 2016). Contextualized gratitude is thought to provide additional insights into context-specific outcomes (Fredrickson, 2000). Work-specific gratitude plays “a unique role in shaping workplace attitudes” (Lanham et al., 2012; p. 349) since the experience of gratitude is often followed by interpersonal responses within that context (Wood et al., 2008). Based on the spiral of optimal functioning, several studies have shown that (work-specific) gratitude is negatively associated with both the exhaustion and disengagement dimensions of burnout (e.g., Chan, 2011; Lanham et al., 2012).

However, the potential interpersonal mechanisms that mediate the relationship between gratitude and burnout...
remain unclear (Tian et al., 2015). Previous research has explored the function of gratitude to nurture social bonds through the moral reinforcement of helping behaviors (Bartlett & DeSteno, 2006). Nowak and Roch (2007) add that gratitude may spark “upstream reciprocity,” which stimulates helping behavior to the community, instead of just the benefactor. This aligns with the find-remind-and-bind theory of Algoe (2012), which proposes that gratitude stimulates finding new relationships, reminds an individual of existing relationships, or binds individuals closer. Bartlett and DeSteno (2006) add that helping behavior stimulated by emotions, for example, gratitude, differs from prosocial responding without this emotional motivator. For instance, gratitude can stimulate helping behaviors even if such behaviors would be hedonically negative. Therefore, we focus on interpersonal helping behavior (IHB) as a mediating mechanism in the relationship between work-specific gratitude on the one hand and disengagement and emotional exhaustion on the other hand.

IHB can be defined as the genuine concern for colleagues and the provision of voluntary help (Choi, 2006) and is seen as the most distinctive aspect of organizational citizenship behavior (OCB; Organ et al., 2006; Van Scotter & Motowidlo, 1996) and contextual performance (Podsakoff et al., 2000). IHB has been found to alleviate negative states by increasing relatedness to others and to stimulate the maintenance of current resources that were experienced in the grateful state but also to extend resources and decrease exhaustion and disengagement (Hobfoll, 2001; Jang et al., 2020). Next to this, IHB helps to build and bind valuable connections to others (Algoe, 2012; Lyubomirsky et al., 2005), thereby allowing employees to build stronger relationships that may offer them supportive resources and may satisfy the need for relatedness (Bartel, 2001; Grant & Sonnentag, 2010). Hence, we expect that higher levels of IHB, which helps to strengthen and bind relationships, may decrease disengagement and offer new resources that may improve exhaustion (Demerouti et al., 2003; Maslach & Jackson, 1981).

This study adds to the literature in several ways. First, previous studies have mainly focused on dispositional gratitude in relation to burnout (e.g., Chan, 2011; Lee et al., 2018). However, Fredrickson (2000) suggests that studying domain-specific gratitude may affect behavior and that, particularly within organizations, contextualized gratitude may relate strongly to work-related behaviors. Allemand and Hill (2016) distinguish between interpersonal (e.g., family domain) and instrumental (e.g., work domain) domains of gratitude and show that this complexity underlies the effects of gratitude in adulthood, which makes the consideration of domain-specific gratitude relevant. Still, the effects of domain-specific gratitude, such as work-specific gratitude, have hardly been investigated. An exception is the study by Lanham et al. (2012), indicating that work-specific gratitude was negatively related to both dimensions of burnout, whereas dispositional gratitude was not. Therefore, this study considers the effects of work-specific gratitude on IHB and burnout. Additionally, since burnout numbers have been rising in various jobs (Aguilera et al., 2021), insights for wider occupational groups are needed. Therefore, this study investigates the effects of work-specific gratitude on both the disengagement and exhaustion dimensions of burnout within a general working population. Finally, to shed light on the explaining mechanisms, we explore the mediating role of IHB in the relationship between gratitude and both dimensions of burnout.

Gratitude and Burnout

From an evolutionary perspective, it has been evident that negative emotions play a role in survival. The survival of the fittest theorem states that negative emotions narrow action tendencies, thereby enhancing our chances of survival (Tooby & Cosmides, 1990). Whereas these effects of negative emotions have been widely researched (Jans-Beken, 2018), positive emotions have been mostly neglected in the history of psychological research (Emmons & McCullough, 2004). Fredrickson (2001) has applied the evolutionary view on how positive emotions facilitate well-being in the broaden-and-build theory. According to this theory, positive emotions broaden action tendencies by encouraging exploration. This allows individuals to explore new insights and strengthen themselves by building intellectual, socioemotional, and psychological resources. Hence, positive emotions do not only serve as positive end states but serve a role in psychological growth and well-being (Fredrickson & Joiner, 2002). Gratitude is viewed as one of the key emotions which triggers this spiral of optimal functioning (Lambert et al., 2012).

The broaden-and-build theory can be used to explain the relationship between gratitude and both burnout dimensions. According to Fredrickson (2001), gratitude can broaden action tendencies and bring about new behaviors, leading to increased resources. These durable resources can be utilized to manage the demands that workers face and to regain the resources that have been depleted by a high amount of job demands, as is the case for exhaustion (Gordon et al., 2004; Lanham et al., 2012). In addition, gratitude may help an individual to create stronger social bonds through the exploration of new prosocial and interpersonal behaviors (O’Connell et al., 2018). This focus on interpersonal bonds may help to foster the dedication to (others in) the work environment and may thereby decrease
disengagement from the work context (Demerouti et al., 2003). In conclusion, gratitude is likely to provide the necessary emotional, cognitive, and social resources that diminish both exhaustion and disengagement (Guan & Jepsen, 2020). Fredrickson (2000) suggests that work-specific gratitude affects work-related behaviors. Therefore, work-specific gratitude may differ from dispositional gratitude and is expected to have distinct effects on employee outcomes, such as burnout.

Previous cross-sectional studies have shown these types of associations between gratitude and both dimensions of burnout. Chen and Chang (2014) found that gratitude is negatively associated with athlete’s exhaustion (see also Gabana et al., 2017). Lee et al. (2018) demonstrated that gratitude was negatively associated with stress, exhaustion, and cynicism for firefighters. Chan (2011) found that a gratitude intervention reduced exhaustion and deper-sonalization (or disengagement) for teachers. Finally, based on a sample of high-strain mental health professionals, Lanham et al. (2012) found that gratitude at work is negatively associated with exhaustion and disengagement. Based on these empirical findings and the broaden-and-build theory, we propose the following hypotheses:

**Hypothesis 1a:** There will be a negative association between work-specific gratitude and disengagement.

**Hypothesis 1b:** There will be a negative association between work-specific gratitude and exhaustion.

### The Mediating Role of Interpersonal Helping Behavior

Although several studies have shown associations between gratitude on the one hand and disengagement and exhaustion on the other hand, mediating mechanisms have not been explored extensively. Since gratitude is a moral reinforcer to engage in reciprocation (Algoe, 2012; Grant & Gino, 2010), interpersonal behaviors can be seen as a result of gratitude (Fredrickson, 2001). This logic can be based on the broaden-and-build theory of positive emotions (Fredrickson, 2000, 2001; Fredrickson & Joiner, 2002), which states that when a person experiences gratitude, the person develops a broadened mindset in which new skills and behaviors are explored that help to sustain positive moods. Nowak and Roch (2007) add that gratitude may spark upstream reciprocity, which stimulates helping behavior to the community, instead of just the benefactor. The concept of upstream reciprocity aligns with the find-remind-and-bind theory by Algoe (2012), which highlights the importance of gratitude in interpersonal bonds. This theory explains that gratitude may stimulate finding new qualities in others, reminding one of the existing qualities in relationships, or exploring new ways to bind with others. This is due to the fact that gratitude triggers individuals to update their view of the benefactor and others and determine appropriate situational responses. In this sense, gratitude stimulates the individual to explore behaviors that allow the individual to give back to the environment and build supportive connections with others (Algoe, 2012; Fredrickson, 2000). This is in line with Froh et al. (2010), Grant and Gino (2010) and Tsang (2006), who showed that grateful individuals were more likely to engage in IHB. Therefore, we expect work-specific gratitude to be positively related to IHB of employees.

In turn, IHB has been found to increase positive evaluations of relationships and decrease ill-being of the individual (Lyubomirsky et al., 2005; Thoits & Hewitt, 2001). Demonstrating prosocial behaviors increases the quality of social relationships and stimulates one to find new resources in existing relationships (Algoe, 2012; O’Connell et al., 2018), thereby helping to regain depleted resources. Although IHB can be seen as an effortful activity that may also take energy, it has been found to increase well-being and vitality and decrease stress (Inagaki et al., 2016; Titova & Sheldon, 2021). Jang et al. (2020) argue that prosocial behavior (as a part of OCB) is demonstrated as a means of protecting and gaining resources.

In line with conservation of resources theory, which states that individuals strive to retain and gain resources, IHB could be seen as a means to maintain the current resources that were experienced in the grateful state but also to extend resources and decrease exhaustion and disengagement (Hobfoll, 2001; Jang et al., 2020).

In conclusion, we propose that work-specific gratitude is positively related to IHB based on upstream reciprocity and the increased tendency to strengthen interpersonal bonds. In turn, IHB will sustain high-quality relationships, which provide new (interpersonal) resources that may help to rekindle one’s dedication to the work context and content and regain resources that were depleted due to high job demands, resulting in lower levels of disengagement and exhaustion. We propose the following hypotheses:

**Hypothesis 2a:** Interpersonal helping behavior mediates the relationship between work-specific gratitude and disengagement.

**Hypothesis 2b:** Interpersonal helping behavior mediates the relationship between work-specific gratitude and exhaustion.
Methods

Design and Procedure

We conducted a study with three measurements during 5 weeks. Participants were employees of various sectors and countries and were contacted using convenience sampling, aimed at the international network of the researchers. Recruitment of participants was primarily aimed at, but not limited to, the Dutch labor market context. This is reflected in our sample, which consists primarily of Dutch employees (47.3%) but represents other countries such as Germany (12.2%), Finland (9.3%), Belgium (2.8%), and Malta (2.8%) as well. Since there was a possibility for all nationalities to participate digitally in this study, all participants could select a Dutch or English version of the questionnaire. All scales were translated from English into Dutch using the back-translation method (Brislin, 1970). Inclusion criteria were the participant had a minimum age of 18 and was employed for at least 0.5 full-time equivalent (20 hours). In addition, participants could not have any planned leave during the study and should have daily interaction with colleagues or clients. Participants received a consent form before participating, which again emphasized these inclusion criteria. The baseline questionnaire (T0) was distributed by email on Day 1, the second measurement on Day 15 (T1), and the third measurement on Day 29 (T2). This three-measurement design allows us to address the call for research on longer-term outcomes of gratitude in terms of behavior and well-being (Cohn & Fredrickson, 2010; Grant & Gino, 2010; Tsang, 2006). Time intervals were similar to the studies on the effects of gratitude interventions on individual well-being (Cohn & Fredrickson, 2010; Grant & Gino, 2010; Tsang, 2006) and relational resources (Kerr et al., 2015).

The three data points were coupled using an untraceable identifier code. This five-digit identifier code was formulated by the respondent, consisting of the first letter of their mother’s first name and father’s first name, the first letter of their place of birth, and the two digits of their month of birth. The data were treated anonymously and confidentially. If participants completed all questionnaires, they could win a €20 gift card.

Sample

Overall, 353 people participated in the questionnaire, resulting in data for 769 time points. Two hundred sixty-eight participants completed the first questionnaire (T0), 266 participants completed the second questionnaire (−0.75% compared to the first questionnaire; T1), and 217 participants completed the third questionnaire (−18.42% compared to the second questionnaire; T2). These attrition rates (10–30%) are within the acceptable ranges (Allan, 2018).

The average respondent was female (52.7%), 33.56 years old (SD = 11.63), and employed in the Netherlands (n = 167, 47.3%), Germany (n = 43, 12.2%), or Finland (n = 33, 9.3%). The majority of respondents worked in recruitment and human resources (n = 45, 12.7%) or accountancy, finance, and banking (n = 44, 12.5%). Most respondents had a university master’s degree (36.0%) or a university bachelor’s degree (17.0%).

Measures

Gratitude was measured using five items of the Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002). The items were adapted to the work context by adding the specification at work to each item. A sample item is “I have so much at work to be thankful for.” One item (“As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history”) of the GQ-6 was not included since it could not be adapted to the work context. Answers were indicated on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). Cronbach’s α for the first measurement was .85, for the second measurement .87, and for the third measurement .87.

Interpersonal helping behavior was measured with items from the scale of IHB by Moorman and Blakely (1995), as used by Choi (2006). A sample item is “I go out of my way to help co-workers with work-related problems.” Answers were indicated on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). Confirmatory factor analysis (CFA) showed that all items loaded on one factor (T0: χ² (2) = 4.5, comparative fit index [CFI] = .98, Tucker-Lewis index [TLI] = .92, RMSEA = .06). Cronbach’s α was .68 for the first time point, .63 for the second time point, and .67 for the third time point. While this is < .70, a value of ≥ .65 is considered reasonable by authors like Taber (2018, p. 1278). Furthermore, IHB had a satisfactory composite reliability (ω = .67; Bentler, 2009).

Emotional exhaustion and disengagement were measured with two subscales of the Oldenburg Burnout Inventory (Demerouti et al., 2003), each consisting of eight items. A sample item for emotional exhaustion is “During my work, I often feel emotionally drained.” A sample item for disengagement is “Lately, I tend to think less at work and do my job almost mechanically.” Answers were indicated on a 4-point Likert scale, ranging from strongly disagree (1) to strongly agree (4). Cronbach’s α for emotional exhaustion was .78 at T0, .82 at T1, and .86 at T2. Cronbach’s α for disengagement was .85 at all three time points.
Control Variables
Since older workers are found to show higher levels of gratitude because the awareness of mortality directs attention to gratitude (Hill et al., 2013), we included age as a control variable. Since highly educated individuals show higher gratitude (Jans-Beken, 2018) due to improved cognitive abilities and awareness, we controlled for level of education. Furthermore, research suggests between-country differences in gratitude due to cultural variations, such as individualism or collectivism (Mendonça et al., 2018). ANOVA showed that employees from Germany show significantly lower gratitude than the other countries in our data set ($F(1,284) = 6.0, p = .02$). Therefore, we also controlled for country of work (Germany = 1, other = 0).

Strategy of Analysis
Since our data classify as panel data with “multiple responses from the same entity on the independent and dependent variable” (Bliese et al., 2020, p. 79), we used panel regression with plm in R to test the hypotheses (Croissant & Millo, 2008). This approach follows earlier psychological research (e.g., Pieper, 2015; Ring et al., 2018) with the major advantage that it provides more efficient estimates of within-level (Level 1: time points) and between-level (Level 2: individual) relationships in unbalanced data sets (i.e., incomplete numbers of time points per individual) while also better accounting for endogeneity compared to other techniques dealing with clustered data (Baltagi, 2008; Bliese et al., 2020). In addition, indirect relationships were tested in 10,000 Monte Carlo simulations with 95% quasi-Bayesian CIs. Similar to bootstrapping, this approach is more suitable for clustered data sets (Hayes, 2018).

Results
Descriptive Statistics and Correlation Analysis
An overview of correlations, means, and $SD$s is presented in Table 1. Gratitude was found to correlate positively with IHB ($r = .37, p < .001$) and negatively with emotional exhaustion and disengagement ($r = -.49, p < .001; r = -.63, p < .001$, respectively). In turn, IHB was also found to correlate negatively with emotional exhaustion and disengagement ($r = -.23, p < .001; r = -.31, p < .001$, respectively).

Measurement Model
Prior to testing the hypotheses, the measurement model was tested using multilevel CFA with lavaan and lavaan.survey in R (Oberski, 2014; Rosseel, 2012), which takes into account the nested structure of time points within individuals. An overview of the models and fit indices is displayed in Table 2. We started from a four-factor model in which gratitude, IHB, emotional exhaustion, and disengagement were all represented by their own factor, displaying good fit to the data ($\chi^2(265) = 753.96, CFI = .90, TLI = .06, RMSEA = .05$). Both a three-factor model with gratitude and IHB loading on separate factors and the burnout dimensions loading on one common factor ($\Delta\chi^2(\Delta df) = 58.86 (5), p < .001$) and a two-factor model with gratitude and IHB loading on one common factor and the burnout dimensions represented by one factor ($\Delta\chi^2(\Delta df) = 442.26 (9), p < .001$) provided a significantly worse fit compared to the hypothesized model. In addition, a one-factor model also fitted the data significantly worse ($\Delta\chi^2(\Delta df) = 837.09 (10), p < .001$). Therefore, the
A four-factor model is commendable as a measurement model. In addition, a multigroup CFA was conducted to detect whether this four-factor model holds across the three measurement points (T0, T1, and T2). The results are provided in Table 3. Both the Cheung and Rensvold (2002) criterion (ΔCFI < .01) and the Δχ² criterion (Satorra & Bentler, 2001) indicate that scalar invariance can be established (see Table 3). Hence, factor structure, loadings, and intercepts are the same across measurement points, and latent means can be meaningfully compared across measurements.

Hypothesis Testing

Table 4 presents the panel regression results. After default pairwise deletion by our analysis software, 226 participants and 543 time points remain. We adopted fixed-effects (FE) models to assess variation in the relationships between gratitude, IHB, disengagement, and exhaustion over time. While significant Hausman specification tests (1978) indicated unobserved heterogeneity in favor of the FE models (see Table 4) since these models do not account for time-invariant variables, we also calculated random effects (RE) model with maximum likelihood estimation to estimate variation in the relationships between gratitude, IHB, disengagement, and exhaustion between individuals. Significant Breusch–Pagan tests (1979) indicated that sufficient heteroscedasticity was present to continue this approach. Models 1–3 present the FE models with the within-person relationships, while Models 4–6 show the RE models with between-person relationships and random time intercepts.

Looking at the FE models, we see that within-person influences were largely limited. Most relationships remained stable over the period of 5 weeks, with the exception of gratitude and disengagement (β = −.08, p = .002), while participants also displayed less IHB over time (β = −.04, p = .006). Turning toward the RE models, the direct relationships between gratitude on the one hand and disengagement (β = −.18, p < .001) and emotional exhaustion (β = −.11, p < .001) on the other hand were significant. Therefore, our hypotheses that work-specific gratitude would be directly and negatively related to disengagement (Hypothesis 1a) and emotional exhaustion (Hypothesis 1b) were supported. Furthermore, we predicted that the negative relationship between work-specific gratitude and disengagement (Hypothesis 2a) and emotional exhaustion (Hypothesis 2b) would be mediated by IHB. Accordingly, the result showed a significant relationship between gratitude and IHB (β = −.14, p < .001), which indicated a significant relationship between the independent and mediating variable. In line with Hypothesis 2a, IHB negatively predicted disengagement (β = −.07, p = .040), indicating a significant relationship between the mediating and dependent variable. Monte Carlo simulations confirmed the mediating indirect effect to be significant (β = −.010, CI [−.019, −.008], p = .007), supporting Hypothesis 2a. Contrary to Hypothesis 2b, there was no significant relationship between IHB and emotional exhaustion (β = −.03, p = .265). Hence, Hypothesis 2b is not confirmed.

<table>
<thead>
<tr>
<th>Table 2. Confirmatory factor analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>χ²</strong></td>
</tr>
<tr>
<td>One-factor model (CMB)</td>
</tr>
<tr>
<td>Two-factor model (gratitude and IHB as one)</td>
</tr>
<tr>
<td>Three-factor model (burnout as one)</td>
</tr>
<tr>
<td>Four-factor model (hypothesized)</td>
</tr>
</tbody>
</table>

Note. AIC = Akaike information criterion; CFI = comparative fit index; CMB = common method bias; IHB = interpersonal helping behavior; SRMR = standardized root mean square residual. * p < .050, ** p < .010, *** p < .001.

<table>
<thead>
<tr>
<th>Table 3. Model invariance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>χ²</strong></td>
</tr>
<tr>
<td>Configurational invariance (equal factor structure)</td>
</tr>
<tr>
<td>Metric invariance (equal loadings)</td>
</tr>
<tr>
<td>Scalar invariance (equal factor loadings and intercepts)</td>
</tr>
<tr>
<td>Strict invariance (equal loadings, intercepts, and residual variances)</td>
</tr>
<tr>
<td>Full invariance (equal loadings, intercepts, residual variances, and means)</td>
</tr>
</tbody>
</table>

Note. CFI = comparative fit index. * p < .050, ** p < .010, *** p < .0010, n.s. = not significant.
Table 4. Fixed and RE panel models of gratitude over time (T0, T1, and T2) regressed on IHB, disengagement, and emotional exhaustion

<table>
<thead>
<tr>
<th>Predictors</th>
<th>(1) IHB</th>
<th>(2) Disengagement</th>
<th>(3) Emotional exhaustion</th>
<th>(4) IHB</th>
<th>(5) Disengagement</th>
<th>(6) Emotional exhaustion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gratitude</td>
<td>0.07 (0.04)</td>
<td>.062</td>
<td>-.08 (0.04)</td>
<td>.002** (0.03)</td>
<td>-.03 (0.03)</td>
<td>.129</td>
</tr>
<tr>
<td>IHB</td>
<td>-.03 (0.01)</td>
<td>.463</td>
<td>-.01 (0.00)</td>
<td>.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00 (0.00)</td>
<td>.998</td>
<td>0.01 (0.00)</td>
<td>.129</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>-.14 (0.09)</td>
<td>.124</td>
<td>-.04 (0.08)</td>
<td>.626</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.01 (0.02)</td>
<td>.438</td>
<td>0.03 (0.01)</td>
<td>.797</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>-.04 (0.016)</td>
<td>.006**</td>
<td>0.02 (0.024)</td>
<td>.056</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.04</td>
<td>.05</td>
<td>.01</td>
<td>.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman χ²</td>
<td>9.66</td>
<td>.009**</td>
<td>35.55</td>
<td>.001***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breusch–Pagan λ²</td>
<td>11.72</td>
<td>&lt;.001***</td>
<td>16.03</td>
<td>&lt;.001***</td>
<td>14.71</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>N weekly observations</td>
<td>543</td>
<td>543</td>
<td>543</td>
<td>543</td>
<td>543</td>
<td>543</td>
</tr>
<tr>
<td>N individuals</td>
<td>226</td>
<td>226</td>
<td>226</td>
<td>226</td>
<td>226</td>
<td>226</td>
</tr>
</tbody>
</table>

Note. IHB = interpersonal helping behavior. *p <.05, **p <.01, ***p <.001.

Discussion

This study aimed to investigate the relationship between work-specific gratitude on the one hand and exhaustion and disengagement on the other hand. In specific, this study examined whether and to what extent IHB mediates the relationship between work-specific gratitude and these two dimensions of burnout. In line with the broaden-and-build theory (Fredrickson, 2001), our results show a negative relationship between work-specific gratitude and both exhaustion and disengagement. This suggests that work-specific gratitude may help to regain positive states at work by creating an upward spiral of optimal functioning in which (interpersonal) resources are gained, as indicated by Fredrickson (2000), which may help to decrease both emotional exhaustion and disengagement of the individual.

Our results also indicate that work-specific gratitude enhances IHB and that IHB mediates the relationship between work-specific gratitude and disengagement. This aligns with the find-remind-and-bind theory that proposes that gratitude stimulates the exploration of new ways to bind with others (Algoe, 2012). In turn, this reciprocation in the form of IHB decreases disengagement by binding these individuals together and increasing dedication to (others in) the work context. This suggests that the negative effect of work-specific gratitude on disengagement is partially explained by the IHB that is stimulated by gratitude through upward reciprocity.

Contrary to our expectations, our results show that IHB does not mediate the relationship between work-specific gratitude and exhaustion. According to Jang et al. (2020), helping behavior can be both stress-inducing and stress relieving, depending on whether it is motivated by social pressure. Other research has found a positive relationship between helping and strain based on the idea that helping requires the individual to use resources, which may result in higher resource depletion (Bergeron, 2007) and the fact that IHB can be experienced as an involuntary or pressured act of effort (Somech & Drach-Zahavy, 2013). As a result of perceived gratitude, one can still experience a depleting external pressure to reciprocate with helping behavior (Kim & Qu, 2020; Somech & Drach-Zahavy, 2013). This underexplored ambiguity in the effect of IHB (resulting from gratitude) on exhaustion may explain the insignificance of this mediation in our study. Future research may therefore explore this ambiguity by studying the role of social pressure (resulting from gratitude) in this relationship and to what extent the use of resources for helping behavior derived from gratitude may increase strain.

By exploring the differential effects that gratitude has on the two main dimensions of burnout (i.e., disengagement...
and exhaustion; Demerouti et al., 2010), this study extends previous research into the relationship between gratitude and burnout and underlines the importance of considering the separate dimensions of burnout in empirical research. Furthermore, our results showed that although IHB is an explanatory factor in the relationship between gratitude and disengagement, it is not in the relationship between gratitude and exhaustion. These insights contribute to our understanding of the complexity of the relationship between the positive emotion of gratitude and the different dimensions of burnout within the work context and serve as a steppingstone for future research that aims to explore this complexity.

In addition, this study provides insights into the effects of contextualized work-specific gratitude, as previously introduced by Fredrickson (2000), by showing both direct significant effects of work-specific gratitude on IHB, exhaustion, and disengagement, as well as a mediated effect on disengagement through IHB. In this way, this study helps to deepen insights into contextualized gratitude (Allemand & Hill, 2016) and contribute to the literature on gratitude by confirming that work-specific gratitude can be of value to organizations due to its effects on IHB, exhaustion, and disengagement.

Next to this, we build on and extend previous research on the effects of gratitude on burnout dimensions by basing our study on a general working population, as opposed to previous research that focused on specific occupations (e.g., mental health professionals; Lanham et al., 2012). Finally, this study showed that IHB plays a mediating role in the relationship between gratitude and disengagement. Based on this, our study suggests that work-specific gratitude can indeed be a “means of achieving individual and organizational growth” for a variety of occupations (Fredrickson, 2000; p. 131) by sparking IHB. Our results provide insights into how disengagement can be decreased by work-specific gratitude and may encourage future research to explore how work-specific gratitude may be enhanced.

Finally, albeit not the main aim of our study, our results show that most relationships remained stable over our timeframe of 5 weeks, with the exception of the relationship between gratitude and disengagement, which slightly decreased over time. Future research with more extensive longitudinal designs may provide further insights in how the effect of gratitude changes over time.

**Limitations and Future Research**

Six limitations of our study need to be considered. First, the current study does not use any experimental design. Therefore, conclusions on causality cannot be drawn, as we had no control over the causal variable. It is recommended for future research to apply an experimental study design by, for example, using a written gratitude expression experiment (Grant & Gino, 2010) or a counting blessing experiment (Froh et al., 2008).

Second, due to convenience sampling, the generalizability of the results is limited (Ritchie et al., 2003). Although our sample included respondents working in various sectors and countries, our sample was highly educated (53.0% obtained a master’s or bachelor’s degree compared to the average of 34.6% of 25- to 54-year-olds in Europe with tertiary education; Eurostat, 2020). To prevent misrepresentations, future studies should improve the generalizability by using alternative sampling methods (e.g., purposive sampling).

Third, our use of self-report data entails the risk that our results are subject to common-source bias. However, because CFA showed our measures to be distinct, it can be assumed that common-source bias is not a major problem (Spector, 2006). In addition, Podsakoff et al. (2012) indicate that self-reports are adequate for gathering data on “individual’s perceptions, beliefs, judgments, or feelings” (p. 549). Still, future research could explore alternative multi-source measurements. For example, the measurement tool for IHB (Choi, 2006; Moorman & Blakely, 1995) could be used to include another source, such as direct colleagues.

Fourth, the IHB scale showed a relatively moderate reliability (α between .65 and .71). This aligns with previous work from Choi (2006) that demonstrated a relatively low α. Fisher and To (2012) argue that Cronbach’s α could be less suited for testing the reliability within a study with multiple time points since these studies explore within-person variability over time. Therefore, we have explored the more appropriate statistic of composite reliability of the IHB scale, which showed to be satisfactory (ω = .67; cf. Bentler, 2009). Still, future research could explore alternative scales, such as Williams and Anderson’s (1991) extra-role behavior scale.

Next, although participants were informed about the inclusion criteria (age, work hours, planned leave, and daily interaction) in the written consent form, compliance with the inclusion criteria relating to work hours, planned leave, and having daily interaction with colleagues was not verified in analyses. Therefore, the impact of the inclusion criteria on the external validity of this research may be overestimated (Patino & Ferreira, 2018). Future research would benefit from verifying compliance in the first stages of analyses.

Finally, since our primary interest was in between-person effects, we did not sufficiently control for within-person effects. Therefore, there is the risk that these effects might be overestimated (Rights et al., 2020). While
panel analyses account for potential endogeneity, future research can prevent this by controlling for week-level influences (e.g., weekly work hours or work pressure).

**Practical Implications**

This study demonstrated a direct relationship between gratitude on the one hand and disengagement and exhaustion on the other hand, as well as an indirect relationship between work-specific gratitude and disengagement, mediated by IHB. Hence, this study may help practitioners, as they can enhance work-specific gratitude by offering training to employees (Di Fabio et al., 2017). For example, Fehr et al. (2017, p. 376) recommend “making gratitude a fundamental part of the employee experience, such that leaders and managers can leverage the benefits of gratitude for employees and the organization.” This can be done by aligning human resource management practices and creating bundles of human resource management practices (e.g., performance management, onboarding, or human resource development) that support gratitude, providing gratitude training (Di Fabio et al., 2017), or stimulating exercises such as counting blessings or appreciative inquiry (Lai & O’Carroll, 2017). An example of an extensive intervention is the 4-week gratitude intervention by Jung and Han (2017), which covers four stages: introduction to gratitude, recognition of gratitude, expression of gratitude, and empathy of gratitude. Moreover, our results suggest IHB as a method to counteract disengagement among employees. Apart from increasing gratitude, other promising strategies to increase IHB within organizations are stimulating transformational or ethical leadership that actively promotes a “helping culture” (Kalshoven & Boon, 2012), creating a culture with high psychological safety (Frazier & Tupper, 2018), and a strong focus on positive moods and emotions (Tsai et al., 2007). Our study suggests that positive emotions such as gratitude can both directly and indirectly create beneficial outcomes within organizations. We hope that our results inspire both practitioners and researchers to further investigate the effects of positive emotions at work.

**References**


**Journal of Personnel Psychology** © 2021 Hogrefe Publishing


**History**

Received January 27, 2021
Revision received July 29, 2021
Accepted September 3, 2021
Published online November 22, 2021

**Conflict of Interest**

The authors have no conflicts of interest to declare that are relevant to the content of this article.

**Publication Ethics**

Informed consent was obtained from all individual participants included in the study.

**Open Data**

The data that support the findings of this study are available from the corresponding author upon reasonable request.

**Funding**

No funds, grants, or other support was received.

**ORCID**

Amber Kersten
https://orcid.org/0000-0002-5326-5841

**Amber Kersten**
Department of Human Resource Studies
Tilburg University
Warandelaan 2
5037 AB Tilburg
The Netherlands
a.kersten@tilburguniversity.edu