ORIGINAL ARTICLE

Gratitude intersects with affect as a boundary condition for daily satisfaction: An affective dynamics perspective

Leticia Mosteo[1] | **Ana Junça-Silva[2,3]** 🆔 | **Rita Rueff Lopes[4]**

[1]Department of Psychology & Sociology, University of Zaragoza, Zaragoza, Spain

[2]Department of Human Resources and Organizational Behavior, Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal

[3]Business Research Unit – BRU (UNIDE-IUL), Instituto Politécnico de Tomar (IPT), Lisbon, Portugal

[4]Esade Business & Law School, Barcelona, Spain

Correspondence
Ana Junça-Silva, Department of Human Resources and Organizational Behavior, Instituto Universitário de Lisboa (ISCTE-IUL), Lisbon, Portugal.
Email: ana_luisa_silva@iscte-iul.pt

Abstract

This study is based on the affective events theory to investigate the situational predictors for gratitude-related differences in daily affect and satisfaction. We tested a moderated mediation model in which daily microevents (daily hassles and uplifts) were related to satisfaction through affect, at the within-person level. We also tested the cross-level interaction of gratitude on this indirect relationship. A total of 195 participants participated in a 5-day diary study (195 * 5 = 975 measurement occasions). Multilevel modeling showed that, at the person-level of analysis, daily microevents were significantly related to daily affect and, in turn, to daily satisfaction. At the daily level of analysis, trait-based gratitude moderated the mediation of daily positive affect on the relationship between daily uplifts and daily satisfaction, such that it become stronger for individuals who scored lower on gratitude, but gratitude did not moderate the relationship between daily hassles, negative affect, and satisfaction. These findings make relevant theoretical contributions to understanding the power of gratitude for daily affective dynamics. These results also expand knowledge on within-person processes

that explain daily affect and satisfaction, in addition to more traditional between-person factors. In sum, the present research demonstrates that "being grateful" may be associated with being happy and that individuals who are less grateful need to experience more daily uplifts and positive affect to feel satisfied.

KEYWORDS
daily affect, daily hassles and uplifts, daily microevents, diary studies, gratitude, multilevel modeling, satisfaction

INTRODUCTION

The recent occurrences have changed how people live and experience daily life. For instance, the COVID-19 pandemic crisis, which lived so far together with the war, has significantly affected individuals' well-being (Fel et al., 2022) and their daily satisfaction (Kerman et al., 2022). Daily satisfaction was defined as a cognitive judgment that individuals make about the quality of their day (Diener et al., 2020) and is influenced by situational factors that occur throughout the day, for instance, daily microevents.

The affective events theory (AET; Weiss & Cropanzano, 1996) suggests that these events are the tiny things that trigger affective reactions (e.g. sadness and joy) that in turn influence attitudes (e.g. satisfaction) (e.g. Junça-Silva & Rueff Lopes, 2020). It also proposes that individual differences influence how individuals react to such events and how they deal with the affective reactions prompted by them. Gratitude—an important source of human strength (e.g. Jans-Beken et al., 2020)—was defined as a part of a wider life orientation towards noticing and appreciating the positive in life (Wood et al., 2008) and includes an experienced sense of wonder, thankfulness, and a tendency to appreciate life as it occurs (Emmons & Shelton, 2002). Diverse studies have shown that gratitude is a condition that attenuates the relationship between unexpected or negative life conditions and individuals' well-being and health (Cheng et al., 2015; Kong et al., 2021; O'Connell et al., 2016).

Despite the importance of gratitude for daily life and for well-being (e.g. Jans-Beken et al., 2020), specifically considering the uncertain times lived nowadays (e.g. Junça-Silva & Silva, 2022), no studies are exploring the role of gratitude as a boundary condition that may be framed within the AET and, hence, may be treated as an individual difference. Therefore, based on the AET, we defined a framework arguing that daily microevents will trigger affective reactions that will influence daily satisfaction. Moreover, we delineate theoretical arguments to conceive trait gratitude as a moderator of the previous causal chains and, hence, expect that individuals who, on average, score higher on gratitude will tend to feel more satisfied when experiencing more daily uplifts and positive affect and that even when experiencing more daily hassles will not be so affected as individuals with lower gratitude scores.

THEORETICAL FRAMEWORK

The relationship between daily microevents and satisfaction: An affective events perspective

Recently, daily microevents have received more attention from scholars (e.g. Nezlek, 2022) due to their influences on important outcomes, such as health or well-being (e.g. Klaiber et al., 2021; Reindl et al., 2021).

The AET has explored such events highlighting their influence on daily outcomes. The theory argues that the person's context creates conditions for these events to occur triggering affective reactions that, in turn, will influence attitudes and behaviours (Nezlek, 2022). Daily microevents can be appraised as negative (daily hassles, e.g. having to deal with someone in a rotten mood) and positive (daily uplifts, e.g. being praised by someone at work). Daily hassles are the tiny things that annoy and let the person down creating, thereby, negative affective reactions (e.g. tension and anger). On the opposite, daily uplifts are the positive things that boost the individuals' day by making them feel positive affect (e.g. contentment and enthusiasm).

Beyond this theoretical perspective, there have been many empirical demonstrations of the path from daily microevents to well-being indicators via affective mechanisms (e.g. Reindl et al., 2021). Within these empirical demonstrations, only a few have focused on daily satisfaction—the cognitive evaluation that individuals make of their day (Diener et al., 2020). Daily satisfaction has been found to account for subjective well-being (Newman et al., 2021) and is associated with its cognitive component (Oishi et al., 2001). Newman et al. (2021) argued that global judgments of well-being are significantly affected by "peak, recent and frequently occurring states, whereas daily reports reflect naturally occurring variations in daily life" (p. 407); they demonstrated that daily satisfaction tends to be more accurate as it relies on a person's daily states promoted by daily events.

Junça-Silva and Silva (2022) demonstrated that daily uplifts not only made the individual feel experience positive affect but also uplifted his/her well-being. Bai et al. (2021) showed, across six studies, that awe-related events decreased daily stress through an appraisal of vastness vis-à-vis the self, which in turn boosted life satisfaction. Similarly, Sin et al. (2021) through a diary study showed that daily experiences of emotional and tangible support predicted positive affect and social satisfaction. Wang et al. (2020), through an experience-sampling, demonstrated that positive events were positively related to well-being as they were responsible for satisfying an individual's psychological needs. Zuffianò et al. (2018) also demonstrated the benefits of daily uplifts to life satisfaction.

Therefore, based on the AET and the empirical demonstrations, we hypothesized that, for the within-person level, individuals tend to be more satisfied with their day on days in which they experience more daily uplifts (Hypothesis 1a) and more frequent positive affect (Hypothesis 1b) and that this will serve as a mechanism explaining why daily uplifts enhance their daily satisfaction (Hypothesis 3a). Moreover, at the between-person level, we expect that individuals with higher average levels of daily uplifts tend to be more satisfied with their day than individuals with lower average levels of daily uplifts (Hypothesis 1a). Plus, individuals who experience more positive affect tend to be more satisfied with their day than individuals who experience less negative affect, on average (Hypothesis 1b), and these average levels of positive affect will explain how daily uplifts stimulate daily satisfaction, at the between-person level (Hypothesis 3a). Hence, we defined the following hypotheses.

Hypothesis 1a *Daily uplifts will be positively related to daily satisfaction at the within- and between-person levels.*

Hypothesis 2a *Daily positive affect will be positively related to daily satisfaction, at the within- and between-person levels.*

Hypothesis 3a *The relation between daily uplifts and daily satisfaction will be mediated by daily positive affect, at the within- and between-person levels.*

On the other hand, other studies have focused on the negative side of events, demonstrating that daily hassles were linked to decreased levels of satisfaction. For instance, Junça-Silva et al. (2021) showed that daily hassles triggered negative affect that led to decreased levels of well-being. Similarly, the authors conducted another study in a teleworking setting and evidenced the indirect effect of telework-related hassles on performance via negative affective experiences. Pindek et al. (2021) in their diary study demonstrated that individuals experienced more stress and lower levels of satisfaction on days with more daily hassles (with incivility and work constraints). Junça-Silva and Rueff Lopes (2020) also evidenced that unfriendly customer events led to impaired health and decreased psychological capital.

Based on these findings, we hypothesized, for the within-person level, that individuals tend to be less satisfied with their day on days in which they experience more daily hassles (Hypothesis 1b) and more frequent negative affect (Hypothesis 2b) and that this will serve as a mechanism explaining why daily hassles decrease their daily satisfaction (Hypothesis 3b) (Hilpert et al., 2018). Moreover, at the between-person level, we expect that individuals with higher average daily hassles tend to be less satisfied with their day than individuals with lower average daily hassles (Hypothesis 1b). Plus, individuals who experience more negative affect tend to be less satisfied with their day than individuals who experience less negative affect, on average (Hypothesis 2b), and this explains the positive relationship between daily hassles and daily satisfaction, at the between-person level (Hypothesis 3b). Hence, we defined the following hypotheses.

Hypothesis 1b *Daily hassles will be negatively related to daily satisfaction at the within- and between-person levels.*

Hypothesis 2b *Daily negative affect will be negatively related to daily satisfaction at the within- and between-person levels.*

Hypothesis 3b *The relation between daily hassles and daily satisfaction will be mediated by daily negative affect, at the within- and between-person levels.*

The moderating role of trait-based gratitude

In the last decade, gratitude has attracted many scholars who showed that individual differences in gratitude accounted for well-being indicators, such as life satisfaction or psychological well-being (e.g. Emmons & Mishra, 2011; Kong et al., 2021; McCullough et al., 2002; Wood et al., 2010). Gratitude is an important human strength characterized by a regular sense of thankfulness that has been conceived as a trait or as a state. As a trait, it can be defined as a wider life orientation in which a person tends to be grateful for living and appreciate the little things in life (Jans-Beken et al., 2020) and the others around (Thomas & Watkins, 2003). As a state, gratitude may be viewed as a positive emotion related to the appreciation of other's actions (McCullough et al., 2001) and an "attribution-dependent or affective-cognitive state based on the ability to be empathic, resulting from both appraising a received benefit as a positive outcome as well as recognizing that this positive outcome stems from an external source" (Jans-Beken et al., 2020, p. 743). In this study, we focused on trait-based gratitude as we aimed to explore whether individual differences in gratitude levels would influence a person's reaction to daily microevents.

We rely on the AET to argue that trait-based gratitude will serve as a boundary condition in the relationship between daily microevents and satisfaction, via affective reactions. First, as a trait, gratitude is conceptualized as a life orientation that influences how individuals react and cope with the minor things in life (Wood et al., 2010), as daily microevents are. Indeed, grateful people tend to be more acceptant of negative events and, hence, buffer their negative effects (Junça-Silva et al., 2023). Thus, it is expectable that grateful individuals respond more positively to daily uplifts and daily hassles than individuals with lower levels of gratitude.

Second, grateful individuals tend to easily notice and appreciate the positive occurrences in the world (Portocarrero et al., 2020) increasing their gratitude, optimism, and acts of kindness (Stone et al., 2022). For instance, gratitude has been related to other positive affective states (e.g. feelings of awe when facing beauty in the little things) (Gulliford et al., 2013) that arise from the tendency to appreciate life as a whole. This generalized grateful thinking is also related to a focus on enjoying the present moment (e.g. on what a person has and not on what s/he should have) that derives from an understating that life is short and must be lived as it is (Wood et al., 2008). This focus on the present moment appears to create a positive bias that, in turn, leads individuals to savour moments and positively use their strengths by improving their coping styles when facing uncertain, unexpected, or negative events (Stone et al., 2022).

Third, grateful individuals tend to be more empathetic and kinder to others, showing them affection, appreciation, and thankfulness (e.g. Clore et al., 1987; Lazarus & Folkman, 1986; Wood et al., 2008). As such, it is not surprising that gratitude involves altruistic thinking and optimism regarding the world around (Wood et al., 2010) and the ease of recognizing positive experiences and achievements (Portocarrero et al., 2020) which thereby enhances grateful actions, positive functioning (Ryff, 1989), and goal pursuits (Stone et al., 2022).

Therefore, it is likely that gratitude influences how individuals appraise and react to daily microevents, buffering the negative impact of daily hassles on satisfaction and, on the opposite, intensifying the positive effect of daily uplifts on satisfaction. As such, based on the literature on gratitude, we hypothesized that the link between daily uplifts and daily satisfaction via positive affect will be stronger for those who are, on average, more grateful (Hypothesis 4a) and that the indirect effect of daily hassles on daily satisfaction via daily negative affect will be weaker for individuals who, on average, are more grateful (4b) (see Figure 1).

Hypothesis 4a *Gratitude will moderate the indirect effect of daily positive affect in the relationship between daily uplifts and daily satisfaction, such that it will be stronger for higher levels of gratitude.*
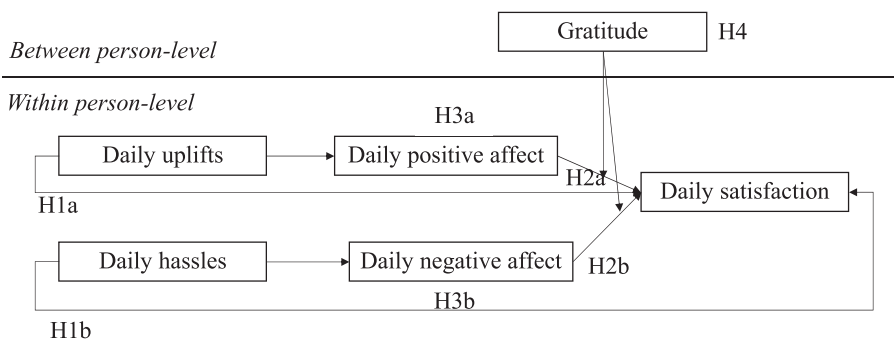

FIGURE 1 The hypothesized moderated mediation model

Hypothesis 4b   *Gratitude will moderate the indirect effect of daily negative affect in the relationship between daily hassles and daily satisfaction, such that it will be weaker for higher levels of gratitude.*

METHOD

This study resorted to a daily diary design conducted for five consecutive days.

Participants and procedure

We recruited participants from the Internet and a total of 245 agreed to participate in the study. Those who agreed received an email explaining the main goals of the study, the procedure, and clarifying the voluntary nature of their participation. We also highlighted that they could stop participating whenever they wanted to and that all the data were confidential and anonymous. Before starting, they signed the study's informed consent, and after that, they received another email with the hyperlink for the general survey. This pretended to measure the participants' socio-demographic characteristics and trait-level gratitude. In the following week, they answered an online daily diary survey for five consecutive days (from Monday to Friday). This aimed to assess the participants' experienced daily microevents, affect, and daily satisfaction. They received daily reminders at 6 PM, and they had to complete the survey by 10 PM. Most participants answered the daily diary survey between 7 and 8 PM (88%). From the 245 individuals who agreed to participate, 195 participants provided answers for five consecutive days (195 * 5 = 975 measurement occasions; response rate: 79.5%). We removed the participants who did not complete the five diary surveys as it could lead to potential bias.

The participant's mean age was 23 years old ($SD = 3.22$), ranging from 18 to 33 years old. Most participants were female (69%) and were enrolled in bachelor's or master's programs (72% and 28%, respectively). Moreover, all of them were working, some of them in part-time jobs (58%) and full-time jobs (42%). They were working in services (42%), call centres (40%), and supermarkets (18%).

Measures

Daily microevents were measured with the 18-item Scale for Daily Hassles and Uplifts at Work (Junça-Silva et al., 2020), which assessed the frequency of daily hassles (10 items, e.g. "Today, I had to deal with someone in a rotten mood") and daily uplifts (eight items, e.g. "Today, I received positive feedback from others"). Participants used a 5-point scale ($1 = never$; $5 = four\ times\ or\ more$). Multilevel reliability through the Alpha and the Omega index was good ($\alpha_{between} = .82$, $\omega_{between} = .88$; $\alpha_{within} = .83$, $\omega_{within} = .87$). The average frequency of daily uplifts and daily hassles was 3.17 ($SD = .85$) and 1.91 ($SD = .79$), respectively.

Daily affect was measured with the 16-item Multi-Affect Indicator (Warr et al., 2014). It assessed the frequency of daily positive and negative affects experienced on that day (e.g. "enthusiastic" and "sad"). Participants answered on a 5-point scale ($1 = never$; $5 = always$). Multilevel reliability tests indicated acceptable reliability for daily positive and negative affects ($\alpha_{between} = .89$; $.90$, $\omega_{between} = .88$; $.89$; $\alpha_{within} = .90$; $.89$, $\omega_{within} = .87$; $.88$). On average, participants reported more positive affect ($M = 3.96$; $SD = .72$) than negative affect ($M = 1.81$, $SD = .67$).

Daily satisfaction was assessed using three items (e.g. "Today, my day was very good") that assessed the participants' cognitive evaluation of that day on a 5-point Likert scale (1 = *totally disagree*; 5 = *totally agree*). Multilevel reliability indices were good ($\alpha_{between} = .75$, $\omega_{between} = .76$; $\alpha_{within} = .76$, $\omega_{within} = .76$). On average, participants reported a moderate level of satisfaction ($M = 3.26$, $SD = 1.11$).

Trait gratitude

We used the 6-item Gratitude Questionnaire (McCullough et al., 2002) to assess gratitude. The participants indicated their responses on a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*) (e.g. "I am grateful to a wide variety of people.") ($\alpha_{between} = .83$, $\omega_{between} = .82$). The mean level of participant's gratitude was 3.71 (SD = .94).

Control variables

The diary day (from the first day of the study—Monday—to the last day of the study—Friday) of data collection was a daily-level control variable because, on one hand, it has been found to influence emotional reactions and well-being (Fisher, 2003; Junça-Silva et al., 2023), and on the other hand, there is evidence that participants' reports are influenced by the repeated assessments (Shrout et al., 2018).

Data analyses

This study used multilevel analysis with nested data to examine the underlying model. First, we calculated the analysis of variance components. We found that there was significant variance in daily uplifts (intraclass correlation [ICC] = .80), daily hassles (ICC = .78), daily positive affect (ICC = .85), daily negative affect (ICC = .73), and daily satisfaction (ICC = .84). This evidences that we may proceed with the multilevel analysis.

Hypotheses 1a–4b were tested through the macro-Multilevel Mediation in Statistical Package for the Social Sciences (Rockwood, 2017). This macro appears to be particularly useful for models that include Level 2 moderators (trait gratitude) (Rockwood, 2017). Multilevel Mediation is, therefore, a suitable macro to test our 1–1–1 mediation model (Level 1 daily hassles and uplifts, daily positive and negative affects, and daily satisfaction) and the cross-level moderation model.

RESULTS

Multilevel confirmatory factor analysis

We ran a multilevel confirmatory factor analysis in R. The results showed that the five-factor model (daily hassles and uplifts, affect, and satisfaction) fitted the data well (at both within- and between-person levels: root mean square error of approximation = .07, comparative fit index = .96, Tucker–Lewis index = .93, within-person level standardized root mean square residuals [$SRMR_{within}$] = .06, $SRMR_{between}$ = .07). On the other hand, the single factor-model (at

both within- and between-person levels) showed an unacceptable fit to the data (root mean square error of approximation = .14, comparative fit index = .63 Tucker–Lewis index = .56, $SRMR_{within}$ = .10, $SRMR_{between}$ = .12). Thus, these results showed additional evidence for the validity of our measures.

Descriptive statistics and correlations

Table 1 shows the descriptive statistics and correlations between the variables.

Hypotheses testing

As we mentioned before, to test our hypotheses, we considered the hierarchical structure of the data, in which daily data were nested within individuals. We with-person centred our variables because as suggested by Bliese et al. (2018), centring variables is essential to test cross-level interactions. We did it in R before performing the hypotheses testing.

First, we tested Model 1, by entering the time as a correlate of daily events. Then, we ran Model 2, both with and without it, and we found a similar pattern of results (see Table 2). Thus, we excluded it from the following analysis. Then, we tested the mediation models (model 3) and then model 4 (moderated mediation models).

Regarding the first hypothesis (Hypothesis 1a), the results showed that daily uplifts were positively related to daily satisfaction ($Estimate_{within}$ = .76, $p < .001$; $Estimate_{between}$ = .64, $p < .001$). Thus, Hypothesis 1a was supported by the data. Hypothesis 1b expected daily hassles would be related to daily satisfaction. The results showed that daily hassles were significantly related to daily satisfaction, however in a different direction ($Estimate_{within}$ = .34, $p < .001$; $Estimate_{between}$ = .04, $p > .05$). Thus, Hypothesis 1b was partially supported.

Hypotheses 2a and 2b stated that daily affect would be related to daily satisfaction. Hypothesis 2a was supported, as we found a positive association between daily positive affect and daily satisfaction ($Estimate_{between}$ = .35, $p < .05$; $Estimate_{within}$ = .47, $p < .001$). Hypothesis 2b was partially supported, as we found a negative relation between daily negative affect and daily satisfaction at the within-person level ($Estimate_{within}$ = −.60, $p < .001$), but not at the between-person level ($Estimate_{between}$ = −.10, $p > .05$).

TABLE 1 Means, standard deviations, and between- and within-person level correlations

Variables	*M*	*SD*	1	2	3	4	5	6
1. Daily uplifts	3.17	.85	—	.28***	.48***	−.16**	.70***	.19**
2. Daily hassles	1.91	.79	.25**	—	−.05	.33***	.12**	−.13**
3. Daily positive affect	3.96	.72	.43***	−.15*	—	−.50***	.56***	.44***
4. Daily negative affect	1.81	.67	−.18*	.28**	−.37**	—	−.26**	−.28**
5. Daily satisfaction	3.26	1.11	.56***	.15*	.46***	−.23**	—	.20**
6. Gratitude	3.71	.94	.17*	−.15*	.38**	−.25**	.19*	—

Note: Correlations below the diagonal are between-person level. Correlations above the diagonal are within-person level.

$N_{(observations)}$ = 975; $n_{(participants)}$ = 195.

*$p < .05$.

**$p < .01$.

***$p < .001$.

TABLE 2 Parameter estimates for 1–1–1 multilevel mediation model

	Model 1 mediator (daily positive affect)	Model 1 dependent (daily satisfaction)	Model 2 mediator (daily positive affect)	Model 2 dependent (daily satisfaction)
Within-level (L1) effects				
Mean intercept	2.34***	−.25	2.21***	−.04
Daily uplifts	.40***	.76***	.41***	.75***
Daily positive affect	—	.47***	—	.47***
Time	—	—	.02*	−.01
Between-person effects				
Daily uplifts	.48***	.64***	.50***	.59***
Daily positive affect	—	.35*	—	.37*
Time	—	—	.02	−.04
Variance of random components				
Random intercept	.09*	.06	.10*	.06
Residual variance	.38***	.53***	.38***	.53***
Direct effect, between level		.64***		.59***
Direct effect, within level		.76***		.75***
Indirect effect, between level		.17*		.19*
Indirect effect, within level		.19***		.19***
AIC		4097.73		4113.27
BIC		4120.04		4135.57
−2LL		4089.73		4105.28
Sample size		L1 = 975; L2 = 195		

Note: Maximum likelihood estimation with robust standard errors (MLR) was used in estimation. Model 1 without covariates and Model 2 with covariates.

Abbreviations: AIC, Akaike Information Criterion; BIC, Bayesian Information Criteria; L1, Level 1 analysis; L2, Level 2 analysis.

*$p < .05$.

**$p < .01$.

***$p < .001$.

Hypothesis 3a expected that daily uplifts would positively influence daily satisfaction through daily positive affect. The results showed a significant indirect effect of daily positive affect, both at between- and within-person levels (Estimate$_{between}$ = .17, $p < .05$, 95% CI [.03, .34]); Estimate$_{within}$ = .19, $p < .001$, 95% CI [.15, .23]). Thus, Hypothesis 3a was supported by the data.

Hypothesis 3b expected that daily hassles would negatively influence daily satisfaction through daily negative affect. The results showed a significant indirect effect of daily negative affect at within-person level (Estimate$_{within}$ = −.15, $p < .001$, 95% CI [−.20, −.11]), but not at between-person level (Estimate$_{between}$ = −.08, $p > .05$, 95% CI [−.25, .06]) (Table 3). Thus, Hypothesis 3b was partially supported by the data.

Hypothesis 4a predicted that gratitude would moderate the indirect effect of daily uplifts on daily satisfaction through daily positive affect. The index of moderated mediation was −.10, with 95% CI (−.17, −.04). As we can see from Figure 2 and Table 4, when daily positive affect increases, daily satisfaction significantly increases for those who scored lower on trait-based gratitude.

TABLE 3 Parameter estimates for 1–1–1 multilevel mediation model

	Model 3 mediator (daily negative affect)	Model 3 dependent (daily satisfaction)	Model 4 mediator (daily negative affect)	Model 4 dependent (daily satisfaction)
Within-level (L1) effects				
Mean intercept	1.24***	3.36***	1.47***	3.98***
Daily hassles	.26***	.35***	.24***	.31***
Daily negative affect	—	−.60***	—	−.62***
Time	—	—	−.02*	−.05***
Between-person effects				
Daily hassles	.35**	.04	.32**	.03
Daily negative affect	—	−.10	—	−.24
Time	—	—	−.07	−.12*
Variance of random components				
Random intercept	.12**	.15	.12*	.11
Residual variance	.38***	1.06***	.38***	1.04***
Direct effect, between level	.04		.03	
Direct effect, within level	.35***		.31***	
Indirect effect, between level	−.03		−.08	
Indirect effect, within level	−.16***		−.15***	
AIC	4741.21		4733.72	
BIC	4763.49		4756.00	
−2LL	4733.21		4725.72	
Sample size	L1 = 975; L2 = 195			

Note: Maximum likelihood estimation with robust standard errors (MLR) was used in estimation. Model 3 without covariates and Model 4 with covariates.

Abbreviations: AIC, Akaike Information Criterion; BIC, Bayesian Information Criteria; L1, Level 1 analysis; L2, Level 2 analysis.

*$p < .05$.

**$p < .01$.

***$p < .001$.

Despite that, when positive affect increased, daily satisfaction was higher for those who scored higher on trait-based gratitude (vs. lower scores on trait-based gratitude). Thus, Hypothesis 4a was partially supported.

At last, Hypothesis 4b predicted that gratitude would moderate the indirect effect of daily hassles on daily satisfaction through daily negative affect. The index of moderated mediation was .05, with 95% CI (−.00, .12) (Table 5). Thus, Hypothesis 4b was not supported.

DISCUSSION

This study aims to expand knowledge on gratitude as a boundary condition that may be framed within the AET. As such, relying on this theoretical framework and resorting to a diary study, we
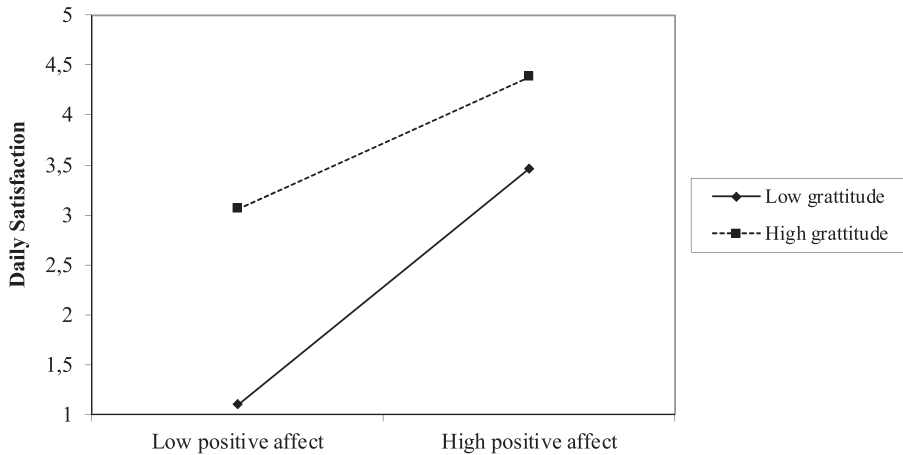
FIGURE 2 Cross-level interaction between gratitude and daily satisfaction

analyze whether daily microevents predict satisfaction via individuals' affective responses, at the within-person level. Moreover, we explore the potential moderating role of gratitude in these mediated relationships. With this study, we identify and show how daily microevents predict individuals' levels of daily satisfaction via affective experiences by analysing trait gratitude as an important boundary condition that may influence this relationship. By doing so, we extend the AET by demonstrating not only how daily microevents affect how one evaluates their day but also when this is likely to occur.

First, we show that daily uplifts positively predict daily satisfaction and that daily hassles have the same effect. The positive relationship between daily uplifts and satisfaction is well-known, as many studies have demonstrated the benefits of positive experiences for well-being (e.g. Klaiber et al., 2021; Reindl et al., 2021). What is surprising is the positive effect of daily hassles on daily satisfaction. Some studies have evidenced that not always what is perceived as negative in nature leads to negative outcomes (e.g. Bledow et al., 2013; Yang & Kelly, 2016), due to attenuating mechanisms (e.g. gratitude levels) that reduce the impact of negative inputs (daily hassles) on positive outputs (daily satisfaction). Additionally, negative events often bring opportunities with them, be they lessons or chances to improve. Therefore, the impact of daily microevents, in general, may be more related to the lens from which it is perceived than to its valence in particular.

Plus, the ratio of daily microevents is, on average, positive ($M = 1.66$), and this also helps to understand this result, that is, the positive relation between daily hassles and satisfaction is a result of the interplay between daily hassles and uplifts, where the later outperform and, therefore, may buffer the effect of the former (Thundiyil et al., 2016).

Moreover, as expected, findings show a positive relationship between positive affect and satisfaction and a negative relationship between negative affect and satisfaction. Many studies have already demonstrated these relations (e.g. Kong et al., 2019; Ohly & Schmitt, 2015). Theoretically, the broaden-and-build theory of positive emotions (Fredrickson, 2001) supports the path from positive affect to satisfaction, as it argues that experiencing positive emotions will broaden the scope of momentary thoughts and actions, leading to the development and acquisition of personal resources (e.g. gratitude, energy, and optimism), that contribute to the individuals' positive functioning (Diener et al., 2020; Fredrickson, 2013). On the inverse relation, negative affect was shown to amplify negative responses to hassles (e.g. Holtom et al., 2012) and its predictive role regarding satisfaction has been strongly supported in previous investigations (e.g. Rodrigues et al., 2022).

TABLE 4 Parameter estimates for multilevel moderated mediation model

	Model 5 mediator (daily positive affect)	Model 5 dependent (daily satisfaction)	Model 6 mediator (daily positive affect)	Model 6 dependent (daily satisfaction)
Within-level (L1) effects				
Mean intercept	2.35***	1.99	2.21***	2.26
Daily uplifts	.40***	.76***	.41***	.75***
Daily positive affect	—	1.01***	—	1.01*
Gratitude * daily positive affect	—	−.09**	—	−.09***
Time	—	—	.02*	−.01
Between-person effects				
Daily uplifts	.48***	.64***	.50***	.59***
Daily positive affect	—	−.10	—	−.09
Gratitude	—	−.47	—	−.48
Gratitude * daily positive affect	—	.10	—	.10
Time			.02	−.04
Variance of random components				
Random intercept	.10*	.07	.10*	.07
Residual variance	.39***	.53***	.39***	.52***
Direct effect, between level	.64***		.59***	
Direct effect, within level	.76***		.75***	
Index of moderated mediation, between level	.05		.05	
Index of moderated mediation, within level	−.04**		−.04**	
AIC	4067.29		4082.57	
BIC	4089.56		4104.83	
−2LL	4059.29		4074.57	
Sample size		L1 = 975; L2 = 195		

Note: Maximum likelihood estimation with robust standard errors (MLR) was used in estimation. Model 5 without covariates and Model 6 with covariates.

Abbreviations: AIC, Akaike Information Criterion; BIC, Bayesian Information Criteria; L1, Level 1 analysis; L2, Level 2 analysis.

*$p < .05$.

**$p < .01$.

***$p < .001$.

Theoretical implications

Consistent with the AET, we find evidence for the path from daily microevents to daily satisfaction via affective reactions. That is, daily uplifts trigger positive affective reactions that, in turn, lead to increased levels of satisfaction; on the opposite, daily hassles, by arousing negative affective reactions, decrease daily satisfaction. Despite some empirical demonstrations of the influence of daily microevents on well-being indicators, most of these have focused on global

TABLE 5 Parameter estimates for multilevel moderated mediation model

	Model 7 mediator (daily negative affect)	Model 7 dependent (daily satisfaction)	Model 8 mediator (daily negative affect)	Model 8 dependent (daily satisfaction)
Within-level (L1) effects				
Mean intercept	1.24***	3.11	1.47***	3.08
Daily hassles	.26***	.35***	.24***	.31***
Daily negative affect	—	−.31	—	−.27
Gratitude * daily negative affect	—	−.04	—	−.05
Time	—	—	−.02*	−.05***
Between-person effects				
Daily hassles	.35**	.06	.32**	.05
Daily negative affect	—	−.52	—	−.30
Gratitude	—	−.01	—	.10
Gratitude * daily negative affect	—	.09	—	.04
Time			−.07	−.09*
Variance of random components				
Random intercept	.12**	.09	.12**	.08
Residual variance	.38***	1.05***	.38***	1.04***
Direct effect, between level		.06		.05
Direct effect, within level		.35***		.31***
Index of moderated mediation, between level		.03		.01
Index of moderated mediation, within level		−.01		−.01
AIC		4691.29		4686.90
BIC		4713.54		4709.14
−2LL		4683.28		4678.90
Sample size	L1 = 975; L2 = 195			

Note: Maximum likelihood estimation with robust standard errors (MLR) was used in estimation. Model 7 without covariates and Model 8 with covariates.

Abbreviations: AIC, Akaike Information Criterion; BIC, Bayesian Information Criteria; L1, Level 1 analysis; L2, Level 2 analysis.

*$p < .05$.

**$p < .01$.

***$p < .001$.

evaluations of well-being (e.g. life satisfaction) or global evaluations towards a specific domain (e.g. job satisfaction) (e.g. Junça-Silva & Rueff Lopes, 2020; Zuffianò et al., 2018). Therefore, these findings go further, by showing that, at the daily level, there are significant implications of situational factors (daily microevents) for affect and daily judgments of well-being.

Furthermore, gratitude influences the situation-to-affect-to-cognition route, in such a way that when daily uplifts increase, positive affect also increases which, in turn, enhances satisfaction; however, this relation is more positive for those who have lower levels of gratitude. Hence, the

cross-level moderation of gratitude occurs from a different perspective than hypothesized. It seems that individuals with lower levels of trait-based gratitude are more vulnerable to the impact of positive daily microevents, as their levels of satisfaction appear to increase more than the ones who score higher (even though, their overall satisfaction levels are higher). There are several explanations for this result. First, because gratitude tends to build upon past experiences, those who score higher on gratitude tend to be more connected to past and stronger events, thus being less impacted by everyday occurrences, whereas those who score lower on gratitude might have less vivid grateful memories and therefore higher satisfaction at that moment.

Another possible explanation is that gratitude is widely perceived as being interpersonal or interagential in nature, being itself the feeling that emerges when a person is the beneficiary of an act of benevolence. If this holds, then respondents who score higher on gratitude would have a natural tendency to positively respond to events that necessarily involve a benefactor and a beneficiary; nevertheless, the scale of events we used presents daily hassles and uplifts originating from multiple sources and situations. Indeed, only two items involve this type of relation: "Today, I helped someone (at work)" and "Today, someone helped me (at work)." So, following this rationale, most events are rather *appreciation*-related than *gratitude*-related, and this may explain why the moderation role of gratitude was not how we expected.

Moreover, from a conservation of resources perspective (Hobfoll, 2001), gratitude may be viewed as a resource; hence, those who are more grateful are less dependent on everyday situational stimuli and subsequent affective reactions to feel satisfied, because gratitude itself can be a condition that boosts satisfaction—which may explain the fact that individuals with the highest levels of gratitude are always the most satisfied, regardless of the level of positive affect experienced. On the contrary, those who score lower on gratitude, and therefore are not naturally inclined to always look for the positive occurrences in life, may become more impacted when such events occur due to the surprise effect, having consequently a greater effect on their affect and satisfaction. It would also be interesting to add that previous studies found that gratitude played no role in boosting positive affect (Emmons & McCullough, 2003; Froh et al., 2008; Lau & Cheng, 2013). This could be interpreted by the spiritual association of gratitude with contemplative nonjudgment, that is, grateful individuals are believed to accept external events while refraining from labeling them and, therefore, without being internally influenced by them.

Limitations and future directions

Despite the positive features of the study (e.g. being a diary study and exploring the cross-level moderation of gratitude), we must consider the limitations as well. First, the sample is mostly composed of young female adults ($M = 19$ years old) which may create a source of bias in interpreting the findings. Therefore, results must be generalized with some caution. Moreover, we resort to self-report measures which may account for the common method bias (Podsakoff et al., 2012). However, to overcome that, we performed multilevel confirmatory factor analyses showing that common method bias is not an issue in this study. Moreover, as Baer (2019) noted, self-reports are suitable instruments to collect data on internal states and situations, such as affective states, daily microevents, and daily satisfaction. At last, we must consider the high ICCs found. Indeed, a high ICC means that there is a smaller variance at the within-person level. In a daily diary study, such as this one, this means that a participant is reporting similar ratings across days. These ICCs call for multilevel analyses; however, this also suggests that

some of these constructs did not vary at the daily level of analyses, and this might partially explain the findings found with the relationship between daily hassles and daily satisfaction. As such, future studies should test the model through a daily diary study with diverse daily time points, for instance, in the morning and another in the afternoon. This would not only reduce the common method bias (Podsakoff et al., 2012) but also further understand the within-person fluctuations.

Future studies would explore the role of gratitude as a state within the AET framework once it may deliver relevant findings. In addition, future studies would benefit from developing an experimental study 2 * 2, with two situational conditions (a negative condition with a specific daily hassle and a positive one with an occurring daily uplift) versus two-state conditions (high vs. low gratitude) and analysing it regarding positive functioning (e.g. flourishing) and well-being indicators (e.g. health, life satisfaction, and momentary satisfaction). Moreover, it should be relevant to understand the role of daily microevents appraisals, such as their importance or intensity to understand further their impact on affective reactions and other triggered outcomes, such daily well-being.

Practical implications

The findings from this study are relevant for applied purposes. First, given the importance of daily uplifts for momentary or daily satisfaction, it would be useful to develop two strategies: (1) train strategies to easily notice and recognize the importance of daily uplifts and teach them to savour them and (2) create conditions for the occurrence of daily uplifts.

Furthermore, given the relevance of gratitude for well-being, developing interventions focused on its development would be an added value, as gratitude has been shown to positively influence key factors regarding well-being (Wood et al., 2010).

CONCLUSION

This study shows how situational factors (daily microevents) create an affective to cognition route (satisfaction). Moreover, despite the positive bias of gratitude for daily satisfaction (the ones who score higher on gratitude tend to feel more satisfied with their day), the findings highlight that individuals low on trait-based gratitude are more volatile to situational factors to improve their satisfaction than individuals high on their trait gratitude.

CONFLICT OF INTEREST
The authors declare that they have no conflicts of interest.

ETHICS STATEMENT
All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

INFORMED CONSENT
Informed consent was obtained from all individual participants involved in the study.

DATA AVAILABILITY STATEMENT

The data are available only upon reasonable request to the authors.

ORCID

Ana Junça-Silva https://orcid.org/0000-0001-6341-9771

REFERENCES

Baer, R. (2019). Assessment of mindfulness by self-report. *Current Opinion in Psychology*, 28, 42–48. https://doi.org/10.1016/j.copsyc.2018.10.015

Bai, Y., Ocampo, J., Jin, G., Chen, S., Benet-Martinez, V., Monroy, M., Anderson, C., & Keltner, D. (2021). Awe, daily stress, and elevated life satisfaction. *Journal of Personality and Social Psychology*, 120(4), 837–860. https://doi.org/10.1037/pspa0000267

Bledow, R., Rosing, K., & Frese, M. (2013). A dynamic perspective on affect and creativity. *Academy of Management Journal*, 56(2), 432–450. https://doi.org/10.5465/amj.2010.0894

Bliese, P. D., Maltarich, M. A., & Hendricks, J. L. (2018). Back to basics with mixed-effects models: Nine take-away points. *Journal of Business and Psychology*, 33(1), 1–23. https://doi.org/10.1007/s10869-017-9491-z

Cheng, S. T., Tsui, P. K., & Lam, J. H. (2015). Improving mental health in health care practitioners: randomized controlled trial of a gratitude intervention. *Journal of Consulting and Clinical Psychology*, 83(1), 177.

Clore, G. L., Ortony, A., & Foss, M. A. (1987). The psychological foundations of the affective lexicon. *Journal of Personality and Social Psychology*, 53(4), 751–766. https://doi.org/10.1037/0022-3514.53.4.751

Diener, E., Thapa, S., & Tay, L. (2020). Positive emotions at work. *Annual Review of Organizational Psychology and Organizational Behavior*, 7, 451–477. https://doi.org/10.1146/annurev-orgpsych-012119-044908

Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84(2), 377–389. https://doi.org/10.1037/0022-3514.84.2.377

Emmons, R. A., & Mishra, A. (2011). Why gratitude enhances well-being: What we know, what we need to know. *Designing Positive Psychology: Taking Stock and Moving Forward*, 248, 262.

Emmons, R. A., & Shelton, C. M. (2002). Gratitude and the science of positive psychology. *Handbook of Positive Psychology*, 18, 459–471.

Fel, S., Jurek, K., & Lenart-Kłoś, K. (2022). Relationship between socio-demographic factors and posttraumatic stress disorder: A cross sectional study among civilian participants' hostilities in Ukraine. *International Journal of Environmental Research and Public Health*, 19(5), 2720. https://doi.org/10.3390/ijerph19052720

Fisher, C. D. (2003). Why do lay people believe that satisfaction and performance are correlated? Possible sources of a commonsense theory. *Journal of Organizational Behavior*, 24(6), 753–777.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. https://doi.org/10.1037/0003-066X.56.3.218

Fredrickson, B. L. (2013). Positive emotions broaden and build. In *Advances in experimental social psychology* (Vol. 47, pp. 1–53). Academic Press. https://doi.org/10.1016/B978-0-12-407236-7.00001-2

Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46, 213–233. https://doi.org/10.1016/j.jsp.2007.03.005

Gulliford, L., Morgan, B., & Kristjánsson, K. (2013). Recent work on the concept of gratitude in philosophy and psychology. *The Journal of Value Inquiry*, 47(3), 285–317. https://doi.org/10.1007/s10790-013-9387-8

Hilpert, P., Xu, F., Milek, A., Atkins, D. C., Bodenmann, G., & Bradbury, T. N. (2018). Couples coping with stress: Between-person differences and within-person processes. *Journal of Family Psychology*, 32(3), 366–374. https://doi.org/10.1037/fam0000380

Hobfoll, S. E. (2001). The influence of culture, community, and the nested? self in the stress process: Advancing conservation of resources theory. *Applied psychology*, 50(3), 337–421.

Holtom, B. C., Burton, J. P., & Crossley, C. D. (2012). How negative affectivity moderates the relationship between shocks, embeddedness and worker behaviors. *Journal of Vocational Behavior*, 80, 434–443. https://doi.org/10.1016/j.jvb.2011.12.006

Jans-Beken, L., Jacobs, N., Janssens, M., Peeters, S., Reijnders, J., Lechner, L., & Lataster, J. (2020). Gratitude and health: An updated review. *The Journal of Positive Psychology*, *15*(6), 743–782. https://doi.org/10.1080/17439760.2019.1651888

Junça-Silva, A., Caetano, A., & Rueff Lopes, R. (2020). A working day in the life of employees: Development and validation of the scale for daily hassles and uplifts at work. *TPM - Testing, Psychometrics, Methodology in Appleied Psychology*, (2), 221–250. https://doi.org/10.4473/TPM27.2.5

Junça-Silva, A., Mosteo, L., & Lopes, R. R. (2023). The role of mindfulness on the relationship between daily micro-events and daily gratitude: A within-person analysis. *Personality and Individual Differences*, *200*, 111891. https://doi.org/10.1016/j.paid.2022.111891

Junça-Silva, A., Pombeira, C., & Caetano, A. (2021). Testing the affective events theory: The mediating role of affect and the moderating role of mindfulness. *Applied Cognitive Psychology*, *35*(4), 1075–1081. https://doi.org/10.1002/acp.3843

Junça-Silva, A., & Rueff Lopes, R. (2020). Unfriendly customer behaviors and employees' psychological capital: The role of health symptoms and positive humor events. *Current Psychology*. https://doi.org/10.1007/s12144-020-01163-8

Junça-Silva, A., & Silva, D. (2022). How is the life without unicorns? A within-individual study on the relationship between uncertainty and mental health indicators: The moderating role of neuroticism. *Personality and Individual Differences*, *188*, 111462. https://doi.org/10.1016/j.paid.2021.111462

Kerman, K., Korunka, C., & Tement, S. (2022). Work and home boundary violations during the COVID-19 pandemic: The role of segmentation preferences and unfinished tasks. *Applied Psychology*, *71*(3), 784–806. https://doi.org/10.1111/apps.12335

Klaiber, P., Wen, J. H., DeLongis, A., & Sin, N. L. (2021). The ups and downs of daily life during COVID-19: Age differences in affect, stress, and positive events. *The Journals of Gerontology: Series B*, *76*(2), e30–e37. https://doi.org/10.1093/geronb/gbaa096

Kong, F., Gong, X., Sajjad, S., Yang, K., & Zhao, J. (2019). How is emotional intelligence linked to life satisfaction? The mediating role of social support, positive affect and negative affect. *Journal of Happiness Studies*, *20*(8), 2733–2745. https://doi.org/10.1007/s10902-018-00069-4

Kong, F., Yang, K., Yan, W., & Li, X. (2021). How does trait gratitude relate to subjective well-being in Chinese adolescents? The mediating role of resilience and social support. *Journal of Happiness Studies*, *22*(4), 1611–1622. https://doi.org/10.1007/s10902-020-00286-w

Lau, R. W., & Cheng, S. T. (2013). Gratitude orientation reduces death anxiety but not positive and negative affect. *OMEGA-Journal of Death and Dying*, *66*(1), 79–88. https://doi.org/10.2190/OM.66.1.e

Lazarus, R. S., & Folkman, S. (1986). Cognitive theories of stress and the issue of circularity. In *Dynamics of stress* (pp. 63–80). Springer.

McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, *82*(1), 112–127. https://doi.org/10.1037/0022-3514.82.1.112

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, *127*(2), 249.

Newman, D. B., Schwarz, N., & Stone, A. A. (2021). Global reports of well-being overestimate aggregated daily states of well-being. *The Journal of Positive Psychology*, *16*(3), 407–416. https://doi.org/10.1080/17439760.2020.1725608

Nezlek, J. B. (2022). When the good may be stronger than the bad: Perceived influence of daily events on well-being. *The Journal of Positive Psychology*, *17*(1), 10–20. https://doi.org/10.1080/17439760.2020.1832248

O'Connell, B. H., O'Shea, D., & Gallagher, S. (2016). Mediating effects of loneliness on the gratitude-health link. *Personality and Individual Differences*, *98*, 179–183. https://doi.org/10.1016/j.paid.2016.04.042

Ohly, S., & Schmitt, A. (2015). What makes us enthusiastic, angry, feeling at rest or worried? Development and validation of an affective work events taxonomy using concept mapping methodology. *Journal of Business and Psychology*, *30*(1), 15–35. https://doi.org/10.1007/s10869-013-9328-3

Oishi, S., Schimmack, U., & Diener, E. (2001). Pleasures and subjective well-being. *European Journal of Personality*, *15*(2), 153–167. https://doi.org/10.1002/per.406

Pindek, S., Zhou, Z. E., Kessler, S. R., Krajcevska, A., & Spector, P. E. (2021). Workdays are not created equal: Job satisfaction and job stressors across the workweek. *Human Relations*, *74*(9), 1447–1472. https://doi.org/10.1177/0018726720924444

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539–569. https://doi.org/10.1146/annurev-psych-120710-100452

Portocarrero, F. F., Gonzalez, K., & Ekema-Agbaw, M. (2020). A meta-analytic review of the relationship between dispositional gratitude and well-being. *Personality and Individual Differences*, *164*, 110101. https://doi.org/10.1016/j.paid.2020.110101

Reindl, G., Lang, J. W., & Runge, J. M. (2021). Work event experiences: Implications of an expanded taxonomy for understanding daily well-being. *Journal of Occupational Health Psychology*, *26*(4), 304–325. https://doi.org/10.1037/ocp0000276

Rockwood, N. J. (2017). Advancing the formulation and testing of multilevel mediation and moderated mediation models (Doctoral dissertation, The Ohio State University).

Rodrigues, F., Faustino, T., Santos, A., Teixeira, E., Cid, L., & Monteiro, D. (2022). How does exercising make you feel? The associations between positive and negative affect, life satisfaction, self-esteem, and vitality. *International Journal of Sport and Exercise Psychology*, *20*(3), 813–827. https://doi.org/10.1080/1612197X.2021.1907766

Shrout, P. E., Stadler, G., Lane, S. P., McClure, M. J., Jackson, G. L., Clavél, F. D., Iida, M., Gleason, M. E., Xu, J. H., & Bolger, N. (2018). Initial elevation bias in subjective reports. *Proceedings of the National Academy of Sciences*, *115*(1), E15–E23. https://doi.org/10.1073/pnas.1712277115

Sin, N. L., Klaiber, P., Wen, J. H., & DeLongis, A. (2021). Helping amid the pandemic: Daily affective and social implications of COVID-19-related prosocial activities. *The Gerontologist*, *61*(1), 59–70. https://doi.org/10.1093/geront/gnaa140

Stone, B. M., Lindt, J. D., Rabinovich, N. E., & Gilbert, D. G. (2022). Effects of the gratitude letter and positive attention bias modification on attentional deployment and emotional states. *Journal of Happiness Studies*, *23*(1), 3–25. https://doi.org/10.1007/s10902-021-00377-2

Thomas, M., & Watkins, P. (2003, May). Measuring the grateful trait: Development of revised GRAT. Paper presented at the annual convention of the Western Psychological Association, Vancouver, BC, Canada.

Thundiyil, T. G., Chiaburu, D. S., Li, N., & Wagner, D. T. (2016). Joint effects of creative self-efficacy, positive and negative affect on creative performance. *Chinese Management Studies*, *10*(4), 726–745. https://doi.org/10.1108/CMS-06-2016-0126

Wang, N., Zhu, J., Dormann, C., Song, Z., & Bakker, A. B. (2020). The daily motivators: Positive work events, psychological needs satisfaction, and work engagement. *Applied Psychology*, *69*(2), 508–537. https://doi.org/10.1111/apps.12182

Warr, P., Bindl, U. K., Parker, S. K., & Inceoglu, I. (2014). Four-quadrant investigation of job-related affects and behaviours. *European Journal of Work and Organizational Psychology*, *23*(3), 342–363. https://doi.org/10.1080/1359432X.2012.744449

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory. *Research in Organizational Behavior*, *18*(1), 1–74.

Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, *30*(7), 890–905. https://doi.org/10.1016/j.cpr.2010.03.005

Wood, A. M., Joseph, S., & Maltby, J. (2008). Gratitude uniquely predicts satisfaction with life: Incremental validity above the domains and facets of the five factor model. *Personality and Individual Differences*, *45*(1), 49–54. https://doi.org/10.1016/j.paid.2008.02.019

Yang, I., & Kelly, A. (2016). The positive outcomes of 'socially sharing negative emotions' in workteams: A conceptual exploration. *European Management Journal*, *34*(2), 172–181. https://doi.org/10.1016/j.emj.2015.10.005

Zuffianò, A., Marti-Vilar, M., & López-Pérez, B. (2018). Prosociality and life satisfaction: A daily-diary investigation among Spanish university students. *Personality and Individual Differences*, *123*, 17–20. https://doi.org/10.1016/j.paid.2017.10.042