University of Groningen

Employee age moderates within-person associations of daily negative work events with emotion regulation, attention, and well-being

Scheibe, Susanne

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

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

Link to publication in University of Groningen/UMCG research database

Employee age moderates within-person associations of daily negative work events with emotion regulation, attention, and well-being

Susanne Scheibe

Employee age moderates within-person associations of daily negative work events with emotion regulation, attention, and well-being

Susanne Scheibe

Department of Psychology, University of Groningen, Groningen, The Netherlands

ABSTRACT

Does advanced age give employees an advantage in face of negative work experiences through their higher emotion-regulation competence? Across days, the occurrence of negative work events is associated with fluctuations in attention, motivation, and well-being. This study examined whether these within-person associations are reduced at advanced employee age, indicating higher resilience. The study further investigated the role of emotion-regulation goal activation and strategy use in these associations. Across two work weeks, 123 employees aged 22 to 63 years provided 1,092 daily reports on affective work events, emotion regulation, attentional focus, persistence, and end-of-day affect. On days with negative-events, participants reported higher activation of emotion-regulation goals, lower attentional focus, and higher negative affect at the end of the workday. Effects were intensified on days with highly negative events. Yet, within-person associations of high-intensity events with emotion-regulation goals, attention, and end-of-day negative affect were reduced at higher age. Further analyses that accounted for age differences in emotion-regulation goals suggested that these play a role in age-related reductions in the event-related disturbance of attentional focus and well-being. There was no evidence of age-differential strategy use on eventful days. Findings are in line with proposed mechanisms underlying older employees' resilience to daily stress.

Employees' effectiveness and well-being at work has been shown to fluctuate over time: On some days, employees are better able to keep their attention on task, persist in their work-related goal pursuits, and maintain well-being than on other days (Beal & Ghandour, 2011; Fisher & Noble, 2004). Research suggests that within-person variability in well-being and work effectiveness co-varies with fluctuations in affective experiences (Merlo et al., 2018). Affective events and states are thought to impact performance and well-being because they can – at times – distract attention away from one's work-related goal pursuits and activate regulatory processes that have various cognitive, motivational, and affective consequences (Beal et al., 2005). However, not everyone shows the same degree of covariation between affective events, effectiveness, and well-being (Hagemeister & Volmer, 2018; Kuba & Scheibe, 2017; Yang & Diefendorff, 2009). Advanced age is often linked with improved emotion-regulation competence, which is thought to manifest in less severe perturbations in well-being in face of daily stressors (Sliwinski & Scott, 2014). Several age-comparative studies outside the work setting have revealed that older adults tend to experience less pronounced stressor-related negative affect than younger adults, that is, increases in negative affect in close proximity to negative daily events (Stawski et al., 2019). This points at the intriguing possibility that older employees are more resilient to daily work stress than younger employees – such that their daily well-being and effectiveness are less perturbed by negative affective experiences.

A possible age-related advantage in managing daily work stress would be of interest to organizations in light of widespread fears that the ageing workforce leads to a loss in company productivity (Oude Mulders et al., 2020), to policy makers who push for an increased labour force participation of older workers, as well as to ageing workers who face the prospect of working longer (Boissonneault et al., 2020). For example, organization can better leverage their multi-age workforce by tailoring support to those age groups who need it most and by stimulating knowledge and skill transfer between different generations at work.

Although age differences in within-person associations between daily stressors and indicators of well-being have been investigated in the general population (Sliwinski & Scott, 2014 for review) and in employee samples (Scheibe et al., 2019), important questions remain unanswered. First, there is a lack of evidence on age differences in the within-person correlates of negative daily events beyond well-being. Work settings are typically characterized by a strong focus on effectiveness and performance. Organizational theories (e.g., Beal et al., 2005) postulate that affective experiences at work should have cognitive and motivational consequences that feed into job performance. Yet, it remains open whether there are age differences in event-associated fluctuations in cognitive and motivational processes that underlie job performance. Hence, it remains open whether an age-related advantage in maintaining well-being when facing emotional challenges at work is accompanied by an age-related advantage in maintaining effectiveness – a question that is imminently important to organizations.

CONTACT Susanne Scheibe ✉ s.scheibe@rug.nl

Second, assumptions about the role of emotion regulation in age differences in daily event-related outcomes remain largely untested. Theories of emotional ageing postulate that emotion regulation improves as people get older (Charles, 2010). Emotion regulation, in turn, is a demonstrated mediator of links between affective work experiences and outcomes (Adams & Webster, 2013; Totterdell et al., 2012). Yet, while age differences in emotion regulation have been studied in the laboratory (Brady et al., 2018) and in daily life without accounting for daily stressors (e.g., Eldesouky & English, 2018), the interplay of age, stressful daily events, and spontaneous emotion regulation has rarely been assessed directly in the work setting.

Addressing these gaps, the current study investigates the moderating role of employee age in within-person associations (subsequently also referred to as "couplings") between daily negative work events, emotion-regulatory processes, and daily work outcomes. Negative work events are relatively easy to remember at the end of the day and are, by definition, an indicator of changes in state affect (Weiss & Cropanzano, 1996). Drawing on Beal et al. (2005) model of affect and episodic job performance, we postulate that negative events can activate emotion-regulatory processes that diminish attention and motivation related to one's work assignments, next to affecting employees' well-being. Specifically, we focus on emotion-regulation goal activation, or the degree to which employees deliberately try to change their emotions (Gross, 2015) and test whether there is shared variance between events and emotion regulation in predicting attentional focus (the ability to maintain attention on-task throughout the workday; Beal et al., 2005; Kahn, 1990), persistence (the ability to pursue a work task until it is done even in the face of difficulties; Kanfer, 1990), and end-of-day negative affect (as indicator of daily well-being; Scheibe et al., 2016). The three indicators were chosen to capture cognitive, motivational, and well-being consequences of affective work events. Integrating work on ageing and emotion regulation (Charles, 2010), we expect that event-associated fluctuations in emotion regulation, attention, persistence, and well-being are reduced at higher work age, signalling higher resilience to daily work stress. Supplementary analyses further explore whether it matters through which strategies emotion-regulation goals are pursued. Based on emotion-regulation research, two putatively costly strategies (expressive suppression, distraction) and one putatively adaptive strategy (reappraisal) were considered (Aldao et al., 2010). In today's workplace where younger and older employees increasingly work side-by-side, understanding age differences in daily drivers of effectiveness and well-being gives important clues for successfully managing the multi-age workforce and designing age-supportive interventions (Truxillo et al., 2015).

Daily correlates of negative work events: attention, motivation, and well-being

Beal et al. (2005) provided a theoretical account of how affective experiences impact on episodic job performance across the day. The model postulates that job performance varies over time, with the level of performance being dependent on the amount of cognitive and self-regulatory resources that employees can devote to their work assignments. Temporary increases in negative affect are predicted to diminish the resources available for one's work tasks. Fluctuations in affect often result from discrete events such as mistreatments by clients or colleagues, technical failures, or negative feedback (Wang et al., 2013; Yang & Diefendorff, 2009). Discrete negative events are used here as proxy measure for temporary variations in state affect; they are defined as changes in present circumstances, bounded in space and time, that interrupt the regular flow of work activities and elicit emotional responses (Weiss & Cropanzano, 1996). Thus, changes in state affect are a defining feature of affective work events. Experiencing negatively charged events is assumed to lead employees to reflect on and appraise their current circumstances, ruminate about their emotions, and attempt to regulate emotions (Beal et al., 2005). Consequently, when negative affect is elevated (for example, in the aftermath of negative events), fewer resources may be available to keep attention on work tasks and persist in work-related goal pursuit.

Confirming these ideas, Porath and Erez (2007) found across three experiments that experiencing rudeness disrupts cognitive processes that underlie task performance. Brose et al. (2012) found in a study of daily assessments across 100 days that fluctuations in negative affect are coupled with fluctuations in subjective control of attention and motivation to do well on a working memory task. Moreover, an experience-sampling study by Merlo et al. (2018) showed that within-person changes in negative affect predicted changes in attentional allocation and regulation in real-life work settings, which in turn predicted episodic job performance. In another diary study with employees, Demerouti and Cropanzano (2017) found daily couplings between negative work events and daily work engagement. For present purposes, we captured event-related changes in work effectiveness by assessing daily levels of attentional focus (the extent to which employees were focused on their work throughout the workday) and persistence (the extent to which employees kept pursuing work-related goals despite obstacles).

In addition to affecting the level of attention and motivation that employees can devote to their work during the day, negative work events may also lead employees to experience diminished well-being at the end of the day. Ruminations about affective experiences encountered during worktime may persist until the evening causing negative feelings (Demerouti & Cropanzano, 2017; Wang et al., 2011). Moreover, the disruptive effects on work effectiveness mean that work goals were not attained, or only incompletely. Negative affect is experienced when people reflect on their day and sense discrepancies between goals and goal attainment, as part of a feedback loop that supports self-regulation (Carver & Scheier, 1990). This makes it likely that on days with negative events, employees leave their work feeling more annoyed, worried, or anxious than on other days without negative events. Diary studies confirm that well-being is perturbed at the end of a workday full of stressors, as shown by event-related increases in negative affect (Eatough et al., 2016; Kuba & Scheibe, 2017; Volmer et al., 2012) or emotional exhaustion (Totterdell et al., 2012). In this study, we captured the well-being correlates of negative work events by asking employees to report their level of current negative affect at the end of each workday.

Age differences in daily correlates of negative work events

As people get older, emotional experience changes in systematic ways. Studies on the development of personality and emotional well-being during adulthood suggest that affect becomes overall more positive and stable, while negative states become less long-lasting (Carstensen et al., 2011; Roberts et al., 2006). Multiple studies on affect and ageing at work report age-related advantages in workplace affect, with older workers reporting higher levels of positive affect and/or lower levels of negative affect (Dahling & Perez, 2010; Konstantinos Kafetsios & Loumakou, 2007; Scheibe et al., 2019, Study 1; Wegge et al., 2006) albeit other studies found age to be unrelated to workplace affect (Bindl et al., 2012; Scheibe et al., 2019, Studies 2 and 3). Paralleling age-related reductions in neuroticism (Roberts et al., 2006), negative affect in daily life appears to be more stable at higher age (Brose et al., 2011; Röcke et al., 2009). Most importantly, when affect is assessed in close proximity to real-life negative events, older adults tend to show weaker stressor-related negative affect, according to a coordinated analysis of multiple experience-sampling studies with age ranges from 18 to 84 years (Stawski et al., 2019).

Although interest in ageing in the workplace is increasing steeply and findings on affect and ageing in the workplace accumulate, few studies to day have examined whether age moderates the cognitive, motivational, and well-being correlates of day-to-day changes in affective experiences at work. We are aware of only two studies on this topic, and these are limited in examining only event-related fluctuations in indicators of well-being. In a series of three daily diary studies with employee samples, Scheibe et al. (2019) examined age differences in within-person associations between work events and negative affect during the event (assessed in retrospect) or on days surrounding events (assessed at the end of the workday). Two of the three studies revealed that event-affect couplings were reduced at higher worker age, indicating higher resilience, while the third study revealed that older workers are more worried than younger workers in response to negative work events. Scheibe and Moghimi (2021) conducted a daily diary study testing age differences in within-person associations between different characteristics of negative work events (for example, their emotional intensity) and well-being at the end of the workday (job satisfaction and fatigue). Their findings suggest that older employees are better able to maintain well-being on days with high-intensity negative events relative to days with low-intensity negative events, as compared to younger employees.

Although existing evidence is still scarce and equivocal, these initial findings suggest that older workers, by and large, enjoy higher affective stability and may be less disrupted by negative daily work events. Thus, event-related perturbations of daily levels of attention, motivation, and well-being as implicated by Beal et al.'s (2005) model may also be less pronounced at higher age. Assuming that older adults enjoy higher affective stability and thus experience less state fluctuations in affect in the aftermath of negative work events, more regulatory resources should remain available to cognitively and motivationally engage with one's work tasks. Hence, age may buffer event-associated fluctuations in attention, motivation, and end-of-day levels of well-being. Formally, this leads to:

Hypothesis 1: The within-person associations between negative daily work events and daily work outcomes are moderated by age, such that (a) the negative relationship between negative events and attentional focus, (b) the negative relationship between negative events and persistence, and (c) the positive relationship between negative events and end-of-day negative affect are weaker among older as compared to younger employees.

Age, negative work events, and emotion regulation

Why would older employees enjoy more stable affect in face of stressful daily events? Here, we focus on the potential role of emotion regulation. Prior research revealed that emotion regulation is one mechanism that indirectly links negative work events, such as interpersonal mistreatment by customers and co-workers, to distress (Adams & Webster, 2013; Scheibe & Moghimi, 2021; Toomey & Rudolph, 2017; Totterdell & Holman, 2003). Regulating emotions is effortful and occupies cognitive and self-regulatory resources (Sheppes & Gross, 2011). Hence, the extent to which employees are engaged with regulating their emotions throughout the workday will determine employees' daily outcomes (Beal et al., 2005). Theories and research on emotional ageing suggest improvements in emotion regulation with age, which can alter the occupational stress process (Scheibe & Zacher, 2013). Building on this work, the current study examined whether age differences in emotion regulation may account for age differences in event-outcome couplings.

Specifically, emotion regulation was captured in this study as the activation of emotion-regulation goals during the workday. According to Gross (2015) model of emotion regulation, any emotion regulatory activity starts with a goal to influence the unfolding trajectories of one's various emotions. For example, employees may become aware that their current anxiety level is undesirably high and may consequently form a goal to reduce anxiety. Emotion-regulation goals are thus the impetus for effortful emotion-regulation activity. They are distinct from the specific strategies or tactics (such as suppression or reappraisal) that are subsequently recruited to achieve such goals (Gross, 2015). When at work, employees typically focus their cognitive and self-regulatory resources on their immediate work tasks. Yet, when negative emotions arise, these move into the focus of attention and activate emotion-regulation goals which hamper job performance (Beal et al., 2005). People can be motivated to regulate their emotions for hedonic reasons (in order to regain a sense of well-being), or for instrumental reasons (to help them achieve other goals; Tamir, 2016). Instrumental reasons, for instance, include adherence with organizational display rules that prohibit the free expression of negative emotions in interactions with

customers and co-workers (Kramer & Hess, 2002). For these various reasons, negative work events tend to lead employees to form a goal to change their emotions into more suitable levels (Totterdell et al., 2012; Totterdell & Holman, 2003). Such goals will remain salient until they have been achieved, at which point there is no longer a discrepancy between desired and actual emotions and emotion-regulation goals get deactivated (Gross, 2015). Faster achievement of emotion-regulation goals therefore helps limit event-related perturbations in attention, motivation, and well-being.

Based on strength and vulnerability integration theory (Charles, 2010), a theory of emotional well-being in adulthood, it can be expected that older employees are more effective and efficient in achieving emotion-regulation goals than younger employees, which leads to a faster deactivation of such goals and less impact of emotion-regulation activity on outcomes. Over the years, most people are able to learn from their experiences, accumulate emotional expertise and develop improved ways to regulate emotions. Supporting this proposition, older adults were found to report enhanced subjective control over their emotions compared to younger adults (Kessler & Staudinger, 2009; Lawton et al., 1992). Evidence from experience-sampling research suggests that older compared to younger adults experience a closer correspondence between current and desired levels of affect in everyday life, and consequently less strongly activated goals to regulate emotions (Scheibe et al., 2013). Older working-aged adults were further found to score higher than young adults on the emotion management subtests of an emotional intelligence battery, which requires participants to judge the effectiveness of different emotion-regulatory strategies in various interpersonal scenarios (Cabello et al., 2016; Kafetsios, 2004). Experimental evidence also suggests that implementing emotion-regulation goals is less cognitively effortful for older than younger adults, presumably because practice leads to higher efficiency (Scheibe & Blanchard-Fields, 2009).

Based on these prior findings, we assume that age-related differences in emotion-regulation play a role in the buffering effect of age on event-couplings with effectiveness and well-being. This buffering effect can occur in two ways. First, if older employees are more efficient and effective in regulating their emotions in the face of negative work events, emotion-regulation goals should be less long-lasting than would be the case for younger employees. Thus, the coupling between negative-event occurrence and the duration of emotion-regulation goal activation should be weaker at higher age. Second, even while emotion-regulation goals are activated, they should be less detrimental for job performance and well-being to the extent that older adults are more skilled in pursuing these goals effectively and with lower effort. Thus, the coupling between emotion-regulation goal activation and negative outcomes should be weaker at higher age.

Hypothesis 2: Weaker event-outcome couplings at higher age are related to age differences in emotion regulation goal activation. The within-person association between negative daily work events and emotion regulation goal activation (a), and in turn the within-person associations of emotion regulation goal activation with attentional focus (b), persistence (c), and end-of-day negative affect (d) should all be reduced at higher age.

Do emotion-regulation strategies matter?

Although the pursuit of emotion-regulation goals is generally effortful, people tend to use different regulatory strategies. These differ widely in the amount of self-regulatory resources they occupy and in their effectiveness in achieving emotion-regulation goals (Aldao et al., 2010; Sheppes & Gross, 2011). An additional exploratory question was, therefore, whether there are age differences in couplings between negative work events and specific regulation strategies.

Further building on Gross (2015) emotion-regulation model, two presumably costly strategies (distraction and suppression) and one presumably effective strategy (reappraisal) were considered in the current study. *Cognitive distraction* entails redirecting attention from the emotional situation to other, more pleasant matters. Although distraction can provide quick relief from negative emotions, this affective benefit tends to be short-lived and thoughts about the stressor will likely continue to crop up. *Expressive suppression*, defined as the avoidance of outward expressions of (negative) emotions, does little to change experienced affect and is cognitively effortful. This strategy primarily serves to regulate interpersonal impressions. Continued use of distraction and suppression should therefore lead to an off-task focus and negative outcomes. A generally effective strategy is *reappraisal*, which entails reinterpreting a stressful situation in order to alter its emotional impact, for example, by changing perspectives or considering positive side effects (Gross, 2015). Reappraisal successfully diminishes negative emotions and supports the long-term adaptation to stressful stimuli. Although reappraisal requires moderate cognitive effort to override incoming emotional information with an alternative interpretation, the effort expenditure should be short-lived to the extent that the negative emotions subside relatively quickly. Using reappraisal during the workday should therefore be less disruptive to effectiveness and relate positively with well-being.

Prior research has yielded mixed results regarding age differences in the use of emotion-regulation strategies. Some studies suggest that older employees are less inclined than younger employees to use distraction and the related strategy of avoidance coping in daily life (Hertel et al., 2015; Kim & Agrusa, 2011; Scheibe & Moghimi, 2021). There is also evidence in community samples that suppression is used less often at higher age (English & John, 2013; John & Gross, 2004), whereas reappraisal is used more often (Diehl et al., 1996; John & Gross, 2004; Yeung et al., 2011). However, studies on the relationship of age with reappraisal and suppression in *worker* samples are inconclusive (Doerwald et al., 2016). A final research question in the current study therefore was whether relatively older employees would recruit distraction, suppression, and reappraisal to a different extent than younger employees on workdays during which they experience negative work events. An answer to this question will provide a more fine-grained understanding of age-related differences in the intricate emotion-regulation processes that underlie daily resilience at work.

Method

Participants and procedure

A sample of 151 working adults living in Germany and employed in various occupational backgrounds and job positions was recruited for a 10-day diary study between October 2015 and September 2016. Participants were recruited from the wider personal network of three master students and by word-of-mouth, which resulted in a heterogeneous sample. As incentive, participants who completed at least seven daily surveys received personalized feedback after study completion on how they handle emotions, which they could retrieve online via a self-generated code. They also participated in a raffle for a € 50 voucher for an online store, one per 30 eligible participants. Of the 151 participants who completed the baseline survey, 17 did not leave their email address for the diary part of the study, 10 did not complete any daily surveys, and one did not have paid employment.

The final sample therefore included 123 participants living in Germany. Age ranged from 22 to 63 years with a mean age of 40.8 years (SD = 13.8); job tenure ranged from less than 1 to 35 years with a mean of 8.4 years (SD = 8.3). Of the sample, 55% were women, 48% attained a college or university degree, 69% worked full-time, and 42% held a leadership position. On average, participants estimated to work 7.8 hours (SD = 2.0) per day, of which they interacted 4.4 hours (SD = 2.5) with clients or patients. Participants represented a broad range of occupational sectors, including health and social welfare (39%), research and education (14%), ICT and consulting (8%), trade (8%), finance (7%), and industry and production (6%).

The study plan comprised a web-based general survey and 10 web-based daily surveys at the end of the work day over the period of two regular workweeks. The general survey assessed demographics and general work characteristics; the daily questionnaires assessed momentary affect, day-specific attentional focus and task persistence, affective work events, and day-specific emotion regulation. Participants received personalized links to the daily surveys each workday until they completed 10 daily entries. Due to a system error, some participants were able to provide more than 10 daily entries. We screened out daily entries in which participants reported being off work, double entries (retaining only the first entry per day), and entries with a large number of missings. The total number of valid daily entries was 1092, with an average of 8.8 (SD = 2.9, range 1 to 14) entries per participant (response rate of 86% out of 10 planned entries). Study procedures were approved by the Ethical Committee Psychology at the author's university.

Measures

The following measures were included in the daily surveys in the order listed.

End-of-day negative affect

Participants first reported their momentary affect using an affect checklist developed by Kessler and Staudinger (2009) for age-comparative work. The list included four items to assess negative affect of high arousal (anxious, annoyed, worried, nervous) as well as 12 further items assessing positive affect and

negative affect of low arousal (not included in analyses).[1] Participants were asked to indicate on a 5-point Likert scale ranging from 1 (not at all) to 5 (very much) to what degree they currently experienced each state. The within-person reliability estimate (McDonald's Omega; Geldhof et al., 2014) was .68.

Daily attentional focus

Participants next rated the extent to which they had felt attentive, absorbed, uninvolved, detached, and distracted that day while at work, on a scale from 1 (not at all) to 5 (very much). The last three items were reverse-coded. The measure was developed based on qualitative data by Kahn (1990) and had been successfully used in a prior study (Armenta et al., 2018). The within-person reliability estimate omega was .75.

Daily persistence

Participants completed the Persistence subscale of the Work Effort Scale (De Cooman et al., 2009), which was adjusted to the day-level. The three items (Today I did not give up quickly when something did not work well; Today I did my best to get my work done, regardless of potential difficulties; Today, when I started an assignment I pursued it to the end) were rated on a 5-point scale from 1 (does not apply at all) to 5 (applies fully). The within-person reliability estimate omega was .63.

Daily affective work events

In order to capture meaningful daily events without imposing any fixed categories on respondents, we used an open answer format, followed by a rating scale to evaluate the events' valence (see also Kuba & Scheibe, 2017; Matta et al., 2014). Respondents were asked to name up to six meaningful work events that they found "straining" or "pleasant" that day at work, and to describe them briefly. We inquired not only about negative daily events (our focal predictor) but also positive events to avoid a one-sided focus on negative experiences. However, positive events were not considered in analyses. On average, participants reported 2.9 work events per day (SD = 1.7, range 0 to 6), which concerned interpersonal issues (e.g., "I had a big argument with one of my subordinates about unfinished work tasks"), issues related to the work task or work environment ("Access to the intranet is finally working") or personal issues ("I had a headache"). Subsequently, participants rated each event's valence as very negative, negative, neutral, positive, or very positive. Analyses focused on those events rated as negative or very negative.

Because of the non-normal distribution of event occurrence (there tend to be multiple days without any events and few days with many events) and following standard procedures in daily stress research (e.g., Stawski et al., 2019), we created a dummy variable at the day-level indicating days with at least one negative or very negative event (coded 1) as compared to days without such events (coded 0). In some analyses, we further distinguished negative from very negative events. For this purpose, we recoded negative events into two dummy variables. The first dummy variable compared non-negative event days (coded 0) to negative or very negative events (coded 1). The second dummy variable compared non-negative and negative events (coded 0) to very negative events (coded 1). Thereby, this second dummy variable represents the

additional "change" in the outcome variables when the day had highly intense negative events, rather than "only" moderately intense negative events. Across the 1092 daily reports, there were 548 (50.2%) days with no negative events and 544 (49.8%) days with negative events. Across the 544 days with negative events, very negative events were reported on 247 days (22.6% of all daily reports).

Daily emotion regulation

Each day, participants reported the duration of *emotion regulation goal activation* during the workday on three items (*Today, I wanted to … change how I feel, … feel better, … feel less bad*) on a scale ranging from 1 (*rarely or never*) to 5 (*always*). The first item was taken from a prior study (Scheibe et al., 2013), while the other two items were newly created. For our exploratory analyses on strategy use, participants further indicated how they dealt with their feelings during worktime when facing unpleasant or difficult situations. Because employees can use multiple strategies to deal with a given event and may change strategies over time, we assessed strategy use in general, rather than related to specific events. *Distraction* was assessed with the 3-item Positive Refocusing scale of the Cognitive Emotion-Regulation Questionnaire (CERQ; Garnefski et al., 2001), adjusted to the day-level (*Today, I thought of nicer things than what I have experienced*). *Expressive suppression* and *reappraisal* were assessed with three items each from the Emotion-Regulation Questionnaire (ERQ; Gross & John, 2003), also adapted to the day level. Sample items are *Today, I controlled my feelings by not expressing/showing them* and *Today, I controlled by feelings by thinking differently about the situation*. All nine emotion-regulation strategy items were rated on a 5-point scale from 1 (*rarely or never*) to 5 (*always*). The within-person reliability estimates (McDonald's Omega; Geldhof et al., 2014) were .89 for emotion-regulation goals; .67 for distraction; .63 for suppression; and .54 for reappraisal.

A multilevel confirmatory factor analysis (MCFA) was conducted using MPlus 8 software (Muthén & Muthén, 1998–2017) to test construct validity of the different aspects of daily emotion regulation at the within-person level. A model with four factors (emotion regulation goals, distraction, suppression, reappraisal) at the day level, combined with a saturated model at the person level (see Ryu & West, 2009), yielded a good fit, $\chi^2 = 77$, $df = 48$; $RMSEA = .02$; $CFI = .99$; $TLI = .98$. Moreover, it fit the data better than a single-factor model ($\chi^2 = 1027$, $df = 54$; $RMSEA = .13$; $CFI = .70$; $TLI = .27$, Satorra–Bentler scaled $\Delta \chi^2 = 942$, $df = 84$, $p < .001$); and a 2-factor model distinguishing emotion-regulation goals from a strategy composite factor (combining suppression, reappraisal and distraction; $\chi^2 = 423$, $df = 53$; $RMSEA = .08$; $CFI = .89$; $TLI = .72$, Satorra–Bentler scaled $\Delta \chi^2 = 257$, $df = 5$, $p < .001$). Thus, specific strategies were distinguishable from the general level of emotion-regulation goal activation at the daily level and from each other, and all four scales were retained for further analyses.

Analytic approach

Given the nested data structure, multilevel path analysis was performed with Mplus 8 software. Model 1 tested Hypothesis 1 that age moderates event-outcome couplings. Attentional focus, persistence, end-of-day negative affect were each predicted by negative-event occurrence (dichotomized) at the day-level and age (grand-mean centred) at the person-level. The model further included the cross-level effect of age on the three event-outcome slopes. Significant cross-level moderation effects were probed through simple slope analysis at low (−1SD) and high (+1SD) levels of age, using the MODEL CONSTRAINTS function in MPlus. The three day-specific outcomes were allowed to co-vary with each other. A pattern of findings in which age moderates the slope from events to the daily outcomes would be in line with Hypothesis 1. Note that due to the event coding and grand-mean centering of age, the intercepts indicate levels of the daily outcomes on days without negative events for a person of average age, whereas the event main effect indicates the in- or decrease in daily outcomes on days with negative events for a person of average age. Relatedly, the age coefficients indicate age-related differences in the daily outcomes on days without events. The age x events cross-level interaction coefficients show how much the event-outcome slopes differ per year of age.

Model 2 tested Hypothesis 2 on the role of emotion-regulation goals in accounting for age differences in event-outcome couplings. At the day-level, emotion-regulation goals were predicted by negative-event occurrence; while the three daily outcomes (attentional focus, persistence, and end-of-day negative affect) were each predicted by negative-event occurrence and emotion-regulation goals (grand-mean centred). At the person level, emotion-regulation goals were predicted by age; the three daily outcome variables were each predicted by emotion-regulation goals and age. The three outcome variables were again allowed to co-vary with each other. The model further included the cross-level effect of age on all within-person slopes. A pattern of findings in which age moderates the coupling between events and emotion-regulation goals (indicating that older adults are less focused on emotion regulation on event days compared to non-event days) and/or the coupling between emotion-regulation goals and daily outcomes (indicating that emotion regulation is less costly for older than younger employees) – while age would no longer moderate the direct slope from negative-event occurrence on the outcome as in Model 1 – would be in line with Hypothesis 2.

Model 3 examined the research question on potential age differences in recruiting specific emotion-regulation strategies on days with negative events. The model predicted the three emotion-regulation strategies (distraction, suppression, reappraisal) by negative-event occurrence at the day-level and age at the person-level. Age was further included as cross-level moderator of the event-strategy slopes, and the three strategy variables were allowed to co-vary. Significant cross-level interaction effects of age and event on strategies would be indicative of age-conditional use of strategies on eventful days.

To account for the non-normal distribution of parameters, all models were estimated using Bayesian analysis with default starting values; 95% credibility intervals are reported for all coefficients. To obtain an estimate of the effect sizes of the significant cross-level interaction effects of age, we compared the between-person variance of the slopes (e.g., between negative events and attentional focus) in base models that did not include age as Level 2 predictor with the between-person

Table 1. Descriptive Statistics, Intra-Class Correlations, and Correlations Between Study Variables.

	Mean (SD)	ICC	1	2	3	4	5	6	7	8	9	10	11
Person-level													
1. Age	40.83 (13.76)		–										
2. Gender	–		.25	–									
3. Job tenure	8.41 (8.28)		.69	.20	–								
Day-level													
4. Negative event occurrence	.50 (.30)	.23	−.08	−.30	−.01	–	−.17	−.09	.24	.30	.07	.16	.21
5. Attentional focus	4.09 (0.48)	.40	.26	.08	.12	−.15	–	.42	−.31	−.31	−.13	−.16	.01
6. Persistence	3.99 (0.64)	.47	−.14	−.14	−.17	.18	.62	–	−.19	−.14	−.05	−.01	.06
7. End-of-day negative affect	1.62 (0.58)	.45	−.27	−.08	−.10	.25	−.61	−.32	–	.36	.02	.11	.03
8. Emotion regulation goals	1.92 (0.81)	.45	−.27	−.16	−.09	.27	−.55	−.19	.73	–	.06	.18	.08
9. Distraction	1.78 (0.68)	.55	−.31	−.21	−.11	.14	−.31	.06	.37	.56	–	.21	.29
10. Suppression	2.45 (1.01)	.66	.01	−.09	.02	.25	−.05	.21	.15	.27	.34	–	.26
11. Reappraisal	2.17 (0.76)	.54	−.17	−.11	−.10	.22	−.05	.25	.26	.34	.60	.61	–

Note. Level 1 $N = 1092$; Level 2 $N = 123$. Event occurrence was coded as 0 = no negative event and 1 = one or more negative events. Gender was coded as 0 = women and 1 = men. Correlations below the diagonal are between-person correlations. Correlations above the diagonal are within-person correlations, obtained in a multilevel analysis in MPlus. Correlations displayed in bold are significant at $p < .05$.

residual variance of the slopes after adding age as predictor of intercept and slope (see Nezlek, 2012). Specifically, we subtracted the residual variance of a given Level 2 slope variable in the final model from the variance of that Level 2 slope variable in the base model, divided by the variance in the base model (but see Nezlek, 2012, for a cautionary note on the validity of this method).

Results

Descriptive analyses

Table 1 presents descriptives, intra-class correlations, and correlations between the person-level and day-level variables. Day-level correlations were obtained by estimating a multilevel model in MPlus in which all variables were set to co-vary at both levels. Interclass-correlations ranged from .23 (negative event occurrence) to .66 (suppression), indicating sufficient variation at both the person- and day-level to proceed with multilevel analyses.

As can be seen in Table 1, age was unrelated to negative-event occurrence. Age correlated negatively with emotion-regulation goals and the strategy of distraction, but not with reappraisal or suppression. Among the outcomes, age was positively related to attentional focus and negatively related to end-of-day negative affect; yet age was unrelated to persistence. Gender and organizational tenure were unrelated to the three daily work outcomes (attentional focus, persistence, and negative affect) and emotion-regulation goals, and are therefore not further considered in analyses.

Testing hypothesis 1: age and bivariate relationships between events and outcome

The results of Model 1, which specified the three work outcomes as a function of event occurrence and age, are shown in

Table 2. Multi-level Estimates for Model 1 Predicting Three Daily Outcomes by Events and Age.

	Attentional focus			Persistence			End-of-day negative affect		
Predictors	Estimate (SE)	95% CI	Sign.	Estimate (SE)	95% CI	Sign.	Estimate (SE)	95% CI	Sign.
			Model with all negative events grouped together						
Day-level									
Neg. events	−.209 (.041)	[−.278, −.135]	***	−.111 (.047)	[−.185, −.008]	*	.290 (.046)	[.190, .373]	***
Residual variance	.246 (.013)	[.225, .279]	***	.376 (.019)	[.340, .413]	***	.236 (.012)	[.213, .257]	***
Person-level									
Intercept	4.199 (.043)	[4.122, 4.272]	***	4.040 (.061)	[3.912, 4.157]	***	1.445 (.049)	[1.353, 1.537]	***
Age	.007 (.003)	[.001, .013]	**	−.006 (.005)	[−.014, .004]		−.006 (.003)	[−.013, −.001]	*
Age x Neg. events	.003 (.003)	[−.002, .007]		−.002 (.004)	[−.008, .007]		−.004 (.004)	[−.013, .002]	
Residual variance	.164 (.030)	[.111, .231]	***	.373 (.066)	[.276, .529]	***	.153 (.031)	[.096, .223]	***
			Model with negative and very negative events distinguished						
Day-level									
Neg. events	−.167 (.042)	[−.245, −.073]	***	−.079 (.062)	[−.208, .036]		.194 (.044)	[.110, .276]	***
Very neg. events	−.129 (.056)	[−.242, −.028]	**	−.064 (.068)	[−.184, .076]		.258 (.051)	[.154, .356]	***
Residual variance	.240 (.012)	[.219, .264]	***	.376 (.019)	[.341, .413]	***	.225 (.011)	[.206, .248]	***
Person-level									
Intercept	4.203 (.043)	[4.119, 4.286]	***	4.037 (.065)	[3.915, 4.177]	***	1.443 (.042)	[1.361, 1.530]	***
Age	.006 (.003)	[.000, .013]	*	−.006 (.005)	[−.015, .003]		−.007 (.003)	[−.013, .000]	*
Age x Neg. events	.000 (.003)	[−.007, .006]		−.002 (.004)	[−.010, .006]		.000 (.003)	[−.007, .006]	
Age x Very neg. events	.009 (.004)	[.002, .018]	**	.003 (.005)	[−.008, .012]		−.010 (.004)	[−.018, −.003]	**
Residual variance	.159 (.028)	[.114, .223]	***	.372 (.060)	[.275, .511]	***	.153 (.029)	[.109, .219]	***

Note. Level 1 $N = 1092$; Level 2 $N = 123$. Neg. events = Negative event occurrence coded as 0 = no event and 1 = one or more event(s). Very neg. events = Coded as 0 = no very negative event and 1 = one or more very negative event(s). CI = Bayesian credibility interval.
* $p < .05$. ** $p < .10$. *** $p < .001$.

Table 2 (upper part). Attentional focus and persistence were lower, and negative affect at the end of the workday was higher, on days with negative events, relative to days without negative events. Age predicted attentional focus positively and negative affect negatively, but age did not predict persistence. Thus, on days without negative events, older employees were more cognitively engaged with their work than younger employees, and they also experienced less anger, worry, and other high-arousal negative emotions at the end of the working day.

Unexpectedly, there were no cross-level interactions between age and negative-event occurrence on any of the three work outcomes. To further inquire whether an age advantage may only appear for more intense negative events, we reran Model 1 while distinguishing moderately intense from highly intense negative-event occurrence (i.e., using the two dummy variables described in the section on event measurement). Results (Table 2, lower part) show that the occurrence of very negative events predicted an additional drop in attentional focus and an additional increase in end-of day negative affect, beyond the effect of moderate negative events. Moreover, there were cross-level interactions between age and the occurrence of very negative events on attentional focus and end-of-day negative affect. These imply that relatively older participants experienced a smaller decrease in attentional focus and a smaller increase in negative affect on days with intense negative events, relative to days with only moderately negative events, than younger participants. The simple slope analysis, shown in Figure 1(a), yielded a negative relationship between very negative-event occurrence and attentional focus for younger participants (roughly age 27; $B = -0.251$, $SE = 0.085$, $p < .001$, 95% CI [−0.419, −0.105]) but this relationship was non-significant for older participants (roughly age 55; $B = -0.008$, SE = 0.075, $p = .459$, 95% CI [−0.154, 0.135]). Moreover, there was a significant and positive relationship between very negative-event occurrence and end-of-day negative affect for younger participants ($B = 0.398$, $SE = 0.074$, p < .001, 95% CI [0.245, 0.539]) but this relationship was reduced to trend-level for older participants ($B = 0.119$, $SE = 0.076$, $p = .067$, 95% CI [−0.041, 0.259]), see Figure 1(b). Age did not moderate the relationship between very negative events and persistence. After accounting for age, the between-level variances in the negative event and very negative-event slopes on attentional focus were reduced by 18% and 2%,

respectively. The corresponding values for end-of-day negative affect were 8% and 28%[2].

Taken together, older employees fared better in terms of attentional focus and end-of-day negative affect across days, but age differences were especially pronounced on days with intense negative events. Hypothesis 1a and 1 c were therefore partially supported; older employees demonstrated comparable reactivity to moderate negative events, yet lower reactivity to highly intense negative events than younger employees on two of the three daily outcomes. Hypothesis 1b regarding the age moderation effect on persistence was not supported.

Testing hypothesis 2: accounting for daily emotion-regulation goals

The results of Model 2, which additionally accounted for emotion-regulation goals, are reported in Table 3. Given that the age moderation effect obtained in Model 1 only occurred for the occurrence of very negative events, we coded negative events again in terms of two dummy variables (with the first dummy variable accounting for differences between non-negative event days vs. negative-event days, and the second dummy variable accounting for the additional change in outcomes on very negative-event days over and above only moderately intense negative-event days). Regarding main effects, emotion-regulation goals were positively predicted by negative-event occurrence and very negative event occurrence at Level 1, and negatively by age at Level 2. Thus, emotion-regulation goals were more strongly activated on negative-event days compared to non-event days, with an additional increase in activation on very negative event days. At the person-level, emotion-regulation goals were less strongly activated in older than younger employees. Age further moderated the within-person association between very negative event occurrence and emotion-regulation goals (but not the within-person association between any negative-event occurrence and age), as shown in Figure 1(c). The simple slope test revealed that the increase in emotion-regulation goals from moderate to strong negative-event days was stronger for younger participants ($B = 0.729$, $SE = 0.114$, $p < .001$, 95% CI [0.526, 0.972]) than for older participants ($B = 0.273$, $SE = 0.114$, $p = .011$, 95% CI [0.046, 0.473]). After accounting for age, the between-level variances in the very negative event slope on emotion-regulation goal activation was reduced by 17%
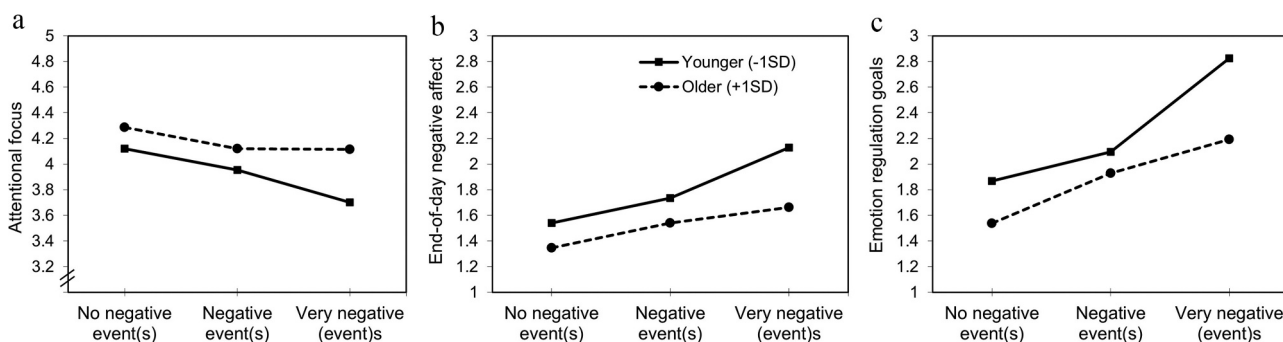

Figure 1. Cross-level moderation between age and negative event occurrence in predicting daily attentional focus (a), end-of-day negative affect (b), and emotion regulation goals (c). *Note*. The response scale ranged from 1 to 5 for all three outcome variables

Table 3. Multi-level Estimates for Model 2 Predicting Emotion Regulation (ER) Goals, and Daily Outcomes Accounting for ER Goals.

Predictors	ER goals			Attentional focus			Persistence			End-of-day negative affect		
	Estimate (SE)	95% CI	Sign.	Estimate (SE)	95% CI	Sign.	Estimate (SE)	95% CI	Sign.	Estimate (SE)	95% CI	Sign.
Day-level												
Neg. events	.308 (.057)	[.189, .422]	***	−.243 (.047)	[−.341, −.152]	***	−.123 (.057)	[−.241, −.023]	**	.292 (.055)	[.184, .401]	***
Very neg. events	.498 (.085)	[.342, .665]	***	−.093 (.053)	[−.201, .009]	***	−.055 (.054)	[−.156, .067]		.180 (.058)	[.051, .287]	**
ER goals				−.146 (.027)	[−.195, −.094]	***	−.083 (.031)	[−.143, −.025]	**	.168 (.030)	[.110, .227]	***
Residual variance	.401 (.069)	[.291, .572]	***	.117 (.022)	[.082, .167]	***	.363 (.058)	[.268, .498]	***	.057 (.015)	[.033, .093]	***
Person-level												
Intercept	−.217 (.067)	[−.350, .086]	***	4.205 (.042)	[4.124, 4.292]	***	4.031 (.069)	[3.892, 4.164]	***	1.460 (.036)	[1.391, 1.532]	***
ER goals				−.336 (.063)	[−.457, −.219]	***	−.246 (.104)	[−.447, −.042]	*	.436 (.054)	[.320, .543]	***
Age	−.012 (.005)	[−.022, −.003]	**	.001 (.003)	[−.005, .007]		−.011 (.005)	[−.020, −.001]	*	.001 (.003)	[−.004, .006]	
Age x Neg. events	.006 (.004)	[−.002, .014]		.001 (.004)	[−.006, .008]		.000 (.004)	[−.008, .009]		−.004 (.004)	[−.012, .003]	
Age x Very neg. events	−.017 (.006)	[−.028, −.006]	***	.007 (.005)	[−.002, .016]		.001 (.005)	[−.009, .010]		−.007 (.004)	[−.015, .001]	
Age x ER goals				.001 (.002)	[−.002, .005]		.000 (.002)	[−.004, .005]		−.004 (.002)	[−.008, .000]	*
Residual variance	.177 (.029)	[.129, .238]	***	.177 (.029)	[.129, .238]	***	.185 (.030)	[.136, .251]	***	.185 (.030)	[.136, .251]	***

Note. Level 1 N = 1091; Level 2 N = 123. Neg. events = Negative event occurrence coded as 0 = no event and 1 = one or more event(s). Very neg. events = Coded as 0 = no very negative event and 1 = one or more very negative event(s). ER goals = Emotion regulation goal activation. CI = Bayesian credibility interval.
* p < .05. ** p < .10. *** p < .001.

(although note that the variance in the negative-event slope was increased by 10%; see Nezlek, 2012 for the limitations of comparing variances across multi-level models). These findings are in line with Hypothesis 2a, although limited to very negative event days.

At the day-level, emotion-regulation goals, in turn, predicted lower attentional focus and persistence and higher end-of-day negative affect. In line with Hypothesis 2d, age moderated the coupling between emotion-regulation goals and end-of-day negative affect. Simple slope tests revealed that the within-person association between chronic emotion-regulation goals and negative affect at the end of the day was stronger for younger participants ($B = 0.220$, $SE = 0.040$, $p < .001$, 95% CI [0.139, 0.296]) than for older participants ($B = 0.114$, $SE = 0.041$, $p = .002$, 95% CI [0.034, 0.199]). The between-individual variance explained by age in these slopes was 14%. Age did not moderate the coupling of emotion-regulation goals with attentional focus and persistence, failing to support Hypothesis 2b and 2c. Importantly, the previously identified cross-level effects of events and age on attentional focus and end-of-day negative affect were no longer significant (see Table 3). Although a causal interpretation cannot be made, the pattern of findings is in line with the assumption that the age-related reductions in event-strain associations are associated with emotion-regulation differences.

Supplementary analyses: the role of strategies

Model 3 examined potential age differences in event-associated use of emotion-regulation strategies. We first accounted for event occurrence with a single dummy variable (distinguishing non-negative vs. any negative-event days). At the day-level, negative-event occurrence was positively related to all three strategies: distraction ($B = 0.087$, $SE = 0.041$, $p = .010$, 95% CI [0.012, 0.165]), suppression ($B = 0.267$, $SE = 0.049$, $p = .001$, 95% CI [0.177, 0.370]), and reappraisal ($B = 0.320$, $SE = 0.045$, $p = .001$, 95% CI [0.227, 0.401]). At the person level, age was negatively related to distraction ($B = -0.014$, $SE = 0.005$, $p = .001$, 95% CI [-0.024, -0.006]) and reappraisal ($B = -0.010$, $SE = 0.005$, $p = .025$, 95% CI [-0.021, 0.000]), but was unrelated to suppression (the 95% CI included zero). None of the cross-level effects of age and events on strategy use were significant. We next reran the model while distinguishing negative vs. very negative event days. Very negative event days were not associated with any additional activation of regulation strategies beyond moderate negative-event days, and there were no additional age moderation effects (all 95% CIs included zero). Thus, there was no evidence that older employees recruited different emotion-regulation strategies than younger employees on eventful days. Rather, as the previous analyses suggest, they tend to be overall less engaged in emotion-regulation activities, based on the finding of a reduced activation of emotion-regulation goals and less use of distraction and reappraisal across days.

Discussion

Combining theoretical ideas on the short-term dynamic interplay of affective work experiences with work performance and well-being (Beal et al., 2005) and enhanced emotion-regulation competence with age (Charles, 2010), the present research tested age-related differences in within-person couplings of negative work events with emotion regulation, attention, motivation, and well-being. Consistent with some prior work (Scheibe et al., 2019; Stawski et al., 2019), results suggest that negative work events – in particular, negative events of high intensity – are associated with less perturbation in well-being in relatively older employees. We extended this finding by showing that an age-related advantage generalizes to employees' attentional focus on their work as a proxy mechanism underlying job performance. Specifically, on days with high-intensity negative work events – relative to days with no or only moderately intense negative events – younger employees reported reduced attentional focus on their work tasks during the day and higher lingering negative affect at the end of the workday. Older employees also responded to these intense negative events but the perturbations in attentional focus and well-being were less severe. The study further provides evidence that age differences in event repercussions are driven by emotion-regulation differences, as is often assumed (e.g., Scheibe et al., 2019; Stawski et al., 2019), but rarely tested empirically. When younger employees faced daily negative work events of high intensity, they reported a heightened motivation to change their feelings throughout the workday. This, in turn, predicted lower attentional focus and persistence and higher negative affect at the end of the day. When older adults faced negative work events of high intensity, emotion-regulation goals were also activated during the workday but to a lesser degree. When accounting for age differences in emotion-regulation goals, age no longer moderated event-outcome couplings. Naturally, our cross-sectional design prohibits causal inferences. Yet these findings are consistent with ideas that higher resilience with age is driven by higher emotion-regulation competence. We did not confirm even-related fluctuations in persistence nor age differences in event-related strategy use.

Theoretical implications

The findings suggest that employee age is an important individual difference factor that modulates the ill-effects of negative daily work events on workers' effectiveness, although only in face of highly intense negative events. While earlier research inspired by Beal et al. (2005) model of affect and episodic job performance has focused on universal processes affecting employees in general (Merlo et al., 2018), only little attention has been paid to employees' age as moderator of within-person couplings between affective experiences and work outcomes. Employees are not always equally able to deliver optimal performance; instead, their performance level waxes and wanes with the amount of cognitive resources and effort they can devote to their immediate work activities. Dealing with negative work events and the accompanying negative affect occupies part of these cognitive resources, thereby leading to an off-task focus and diminished task performance (Beal et al., 2005). In the current study, these consequences were already visible in face of moderately intense negative events, but intensified in face of intense

negative events. Getting older appears to weaken these harmful effects of intense negative work events, making older employees more successful than their younger counterparts in keeping attention on-task during workdays on which intense negative events occur.

Findings did not confirm the hypothesis that there is an age advantage for persistence in pursuing one's work activities. Note, however, that this study was ill-suited to test an age-conditional effect on persistence. Although there was a within-person association between event occurrence and persistence when considering all negative events conjointly, the effect was relatively weak and disappeared once moderate and intense negative events were separated. That is, participants' persistence appeared to be relatively unaffected by negative work events no matter their age. Nevertheless, ideas on the link between affective processes and persistence drawn from Beal et al.'s (2005) model were supported by the significant within-person association between emotion-regulation goals and persistence. To the extent that employees pursued emotion-regulation goals during the workday, they reported being less able to pursue their assignments persistently, or to keep going if things do not work well.

Findings further provide needed support for theoretical ideas on the role of higher emotion competence with age in daily stress. So far, few studies have directly tested this premise in the context of dealing with negative daily work events. The finding that including emotion-regulation goals in the model diminished age-related differences in the direct coupling of events with attention and well-being, while age differences now emerged in the coupling between events and emotion-regulation goals, fit theoretical ideas of higher emotion regulation competence with age (Charles, 2010). Specifically, they fit the idea that older adults are better able to achieve their emotion-regulation goals than their younger counterparts so that these goals are deactivated more quickly in the aftermath of events. Importantly, this age advantage in dealing with negative events was apparent for highly negative events, rather than only moderately negative events.

Apart from the general activation of emotion-regulation goals, the supplementary analyses did not reveal any evidence of age differences in the recruitment of specific emotion-regulation strategies on eventful days. Instead, employees tended to use all three strategies more on negative event days no matter their age. Of course, the study was restricted to three strategies (suppression, distraction, and reappraisal) while it is possible that age differences can be found in the use of strategies other than those three. For example, earlier research suggests that older employees use problem-solving more than young employees (Hertel et al., 2015). Problem-solving may enable the fast resolution of stressors, yet this strategy was not included in this study. Alternatively, rather than using strategies differently than their younger counterparts, older adults may benefit from the fact that they generally experience more positive emotions, as shown in multiple studies in the work setting (Dahling & Perez, 2010; Konstantinos Kafetsios & Loumakou, 2007; Scheibe et al., 2019, Study 1; Wegge et al., 2006). When negative events are experienced by

persons with a tendency towards positive emotions, a mix of positive and negative emotions would result. Mixed emotions help individuals "take the good with the bad", confront stressors more openly and facilitate a richer assessment of their circumstances (Larsen et al., 2003).

Limitations and future directions

One limitation of the current study is the reliance on self-report for the measurement of affective events. This raises the potential concern that the events reported by younger and older employees differed in some systematic ways, which would confound emotion-regulatory responses. However, earlier diary research using a very similar approach to assess daily negative work events suggests that the events that young and older employees spontaneously report are comparable in terms of event intensity, controllability, and whether or not they are interpersonal in nature (Scheibe & Moghimi, 2021). Experience-sampling research has moreover shown that young and older adults do not differ in the threshold to label an event as stressful (Neubauer et al., 2018). These authors tested stressor-appraisal thresholds by asking participants whether they experienced any events that they would consider stressful, but also events they would not consider stressful. Both stressful and non-stressful events were rated for severity. Severity ratings predicted whether an event was labelled as stressor (rather than non-stressor), yet age did not modulate this association. These findings alleviate the concern that any age differences found in the current study would be an artefact of age differences in event characteristics.

A second limitation is that all variables were assessed once a day at the evening through self-report measures, raising the concern of retrospective bias (Robinson & Clore, 2002) and common-method variance (Podsakoff et al., 2012). It is possible that beliefs about emotion regulation self-efficacy coloured ratings more than actual experiences, or that current mood biased the event reports. Nevertheless, the fact that the day-level results are based on person-centred scores – thereby ruling out general response bias – partially alleviates these concerns. In principle, current mood effects could be diminished by spacing out the different ratings across the work day, for example, asking about events midday, emotion-regulation processes half-way through the afternoon, and outcomes at the end of the workday. It should be noted, however, that such a sampling protocol fails to account for events occurring in the afternoon, or emotion-regulation occurring in the morning in the time period between event occurrence and the midday survey. In future research, it may be promising to collect separate streams of data for the core constructs, for example, using event-sampling for the assessment of affective work events and random-sampling of regulation strategies and outcomes at multiple times per day (see Merlo et al., 2018).

In this study, age served as the sole person-level factor to moderate day-level relationships. Future research may consider further person-level factors that may create boundary conditions for age-advantages in responses to daily work stress. For instance, earlier research showed that older adults have lower stress reactivity than younger adults only as long as they are

relatively healthy; when suffering from multiple chronic diseases, older adults tend to be just as reactive to daily stressors (Piazza et al., 2007). It is therefore possible that the current findings do not generalize to employees with chronic health conditions, a group that comprises about one quart of the European workforce and is expected to grow further (Harbers & Achterberg, 2012). Besides personal factors, future research would also benefit from considering stable work characteristics as potential boundary conditions for age-advantages in managing daily work stress. For example, job autonomy is a crucial work characteristic that allows employees to effectively avoid or resolve stressful work experiences and has been found to moderate age differences in coping (Hertel et al., 2015). Job complexity may impact the extent to which negative work events disrupt attentional focus and persistence. Sliwinski et al. (2006) provided experimental evidence that working memory performance is diminished on high-stress days relative to low-stress days for both young and older adults, but more so for complex than simple versions of the task. This makes sense given that high performance on complex cognitive tasks requires strong concentration and focus, so that intrusive thoughts arising from negative work events may be especially disruptive. Future research should therefore consider job complexity as a person-level boundary condition of age differences, as well as daily task complexity as day-level moderator for event-related outcomes.

Practical implications

Negative affective events are experienced by many employees. In fact, in the current heterogeneous sample, 89% of employees reported events that they rated as negative on at least one day during the 10-day study period and 60% of employees reported events rated as very negative. Given the demonstrated harmful effects of negative events on well-being and performance, organizational practitioners can benefit from a better understanding of who is more or less vulnerable to these effects. Besides dispositional and organizational factors, it can be of tremendous practical value to know whether employee age matters in daily stress reactivity. Information on an employee's age is readily accessible, and can impact personnel decisions (such as hiring and staffing decisions) and workplace interactions. Overall, the modal variance of within-person couplings between daily events and outcomes explained by age was 14%. Although some of the effect sizes may appear small, they are certainly non-trivial, especially in light of the fact that relationships with objective person characteristics (e.g., age, as in our study) are expected to be smaller than relationships with attitudes or behaviours (Bosco et al., 2015). The obtained age effects appear practically meaningful, as the outcomes (attentional focus and end-of-day affect) are of clear interest to organizations.

The current findings, along with earlier research on older workers' coping, well-being, and work-life balance (Hertel et al., 2015; Johnson et al., 2013; Scheibe et al., 2016; Spieler et al., 2018) suggest that beliefs about ageing workers as being low in emotional resilience (Rauschenbach et al., 2012) are invalid. Correcting invalid negative stereotypes about older employees

is important to prevent ageism in the workplace (Ng & Feldman, 2012). A better understanding of age differences and the underlying emotion-regulatory mechanisms can moreover inform the development of more effective organizational practices for the multi-age workforce. For example, support can be tailored to those age groups who need it most, and knowledge of age-related advantages in coping with daily events, along with a good understanding of the underlying mechanisms, can be used to stimulate knowledge and skill transfer from older to younger co-workers.

Conclusion

The current study demonstrates that age is an important demographic factor that shapes the way in which employees respond to stressful daily experiences at work. Older employees tend to be less affected by highly intense negative daily work events and better able to maintain high levels of attentional focus and low levels of lingering negative affect on days with intense negative work events, compared to younger employees. The study suggests that this age-related advantage in daily work stress is transmitted through the activation of emotion-regulation goals: Younger employees are investing more regulatory resources into emotion regulation on negative-event days, which reduces regulatory resources for their actual work activities. It also leaves them with elevated negative affect at the end of the working day. These debilitating processes appear to be diminished at higher age.

Notes

1. The other negative affect items were *lethargic, sluggish, dull*, indicating negative affect of low-arousal. A multilevel confirmatory factor analysis indicated that the two subscales of negative affect are empirically distinct, as a 1-factor model did not reach adequate model fit, $\chi2 = 690$, df = 40; RMSEA = .122; CFI = .729; TLI = .620. In comparison, a 2-factor model distinguishing high-arousal negative affect from low-arousal negative affect reached good fit, $\chi2 = 49$, df = 38; RMSEA = .016; CFI = .996; TLI = .994. For reasons of parsimony, we decided to use high-arousal negative affect as our indicator of negative affect. This is consistent with earlier studies (Volmer et al., 2012; several studies in Stawski et al.'s (2019) coordinated analysis). Note, however that other studies used measures that combine high- and low-arousal negative states (Kuba & Scheibe, 2017; other studies in Stawski et al.). We report results for low-arousal negative affect in a footnote.
2. For low-arousal negative affect, we also found a main effect of negative work events at Level 1 (Estimate = 0.342, *SE* = 0.052, 95% CI [0.243, 0.444], *p* = .001). However, at the person-level age predicted neither the intercept nor the event slope (both *p*s > .05). When coding event occurrence in terms of two dummy variables, we found no additional increase in low-arousal negative affect on very negative event days, relative to just moderately negative event days (*p* > .05).

Acknowledgments

Disclosure statement

No potential conflict of interest was reported by the author.

Funding

ORCID

Susanne Scheibe   http://orcid.org/0000-0003-1001-6199

References

Adams, G. A., & Webster, J. R. (2013). Emotional regulation as a mediator between interpersonal mistreatment and distress. *European Journal of Work and Organizational Psychology*, 22(6), 697–710. https://doi.org/doi:10.1080/1359432X.2012.698057

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217–237. https://doi.org/doi:10.1016/j.cpr.2009.11.004

Armenta, B. M., Scheibe, S., Stroebe, K., Postmes, T., & Van Yperen, N. W. (2018). Dynamic, not stable: Daily variations in subjective age bias and age group identification predict daily well-being in older workers. *Psychology and Aging*, 33(4), 559–571. https://doi.org/doi:10.1037/pag0000263

Beal, D. J., & Ghandour, L. (2011). Stability, change, and the stability of change in daily workplace affect. *Journal of Organizational Behavior*, 32(4), 526–546. https://doi.org/doi:10.1002/job.713

Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology*, 90, 1054–1068. https://doi.org/doi:10.1037/0021-9010.90.6.1054

Bindl, U. K., Parker, S. K., Totterdell, P., & Hagger-Johnson, G. (2012). Fuel of the self-starter: How mood relates to proactive goal regulation. *Journal of Applied Psychology*, 97(1), 134. https://doi.org/doi:10.1037/a0024368

Boissonneault, M., Mulders, J. O., Turek, K., & Carriere, Y. (2020). A systematic review of causes of recent increases in ages of labor market exit in OECD countries. *Plos One*, 15(4), e0231897. https://doi.org/doi:10.1371/journal.pone.0231897

Bosco, F. A., Aguinis, H., Singh, K., Field, J. G., & Pierce, C. A. (2015). Correlational effect size benchmarks. *Journal of Applied Psychology*, 100(2), 431–449. https://doi.org/doi:10.1037/a0038047

Brady, B., Kneebone, I. I., Denson, N., & Bailey, P. E. (2018). Systematic review and meta-analysis of age-related differences in instructed emotion regulation success. *PeerJ*, 12, 1–27. https://doi.org/doi:10.7717/peerj.6051

Brose, A., Schmiedek, F., Lövdén, M., & Lindenberger, U. (2011). Normal aging dampens the link between intrusive thoughts and negative affect in reaction to daily stressors. *Psychology and Aging*, 26(2), 488–502. https://doi.org/doi:10.1037/a0022287

Brose, A., Schmiedek, F., Lövdén, M., & Lindenberger, U. (2012). Daily variability in working memory is coupled with negative affect: The role of attention and motivation. *Emotion*, 12(3), 605–617. https://doi.org/doi:10.1037/a0024436

Cabello, R., Sorrel, M. A., Fernández-Pinto, I., Extremera, N., & Fernández-Berrocal, P. (2016). Age and gender differences in ability emotional intelligence in adults: A cross-sectional study. *Developmental Psychology*, 52(9), 1486–1492. https://doi.org/doi:10.1037/dev0000191

Carstensen, L. L., Turan, B., Scheibe, S., Ram, N., Ersner-Hershfield, H., Samanez-Larkin, G. R., . . . Nesselroade, J. R. (2011). Emotional experience improves with age: Evidence based on over 10 years of experience sampling. *Psychology and Aging*, 26(1), 21–33. https://doi.org/doi:10.1037/a0021285

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97(1), 19–35. https://doi.org/doi:10.1037/0033-295X.97.1.19

Charles, S. T. (2010). Strength and vulnerability integration: A model of emotional well-being across adulthood. *Psychological Bulletin*, 136(6), 1068–1091. https://doi.org/doi:10.1037/a0021232

Dahling, J. J., & Perez, L. A. (2010). Older worker, different actor? Linking age and emotional labor strategies. *Personality and Individual Differences*, 48(5), 574–578. https://doi.org/doi:10.1016/j.paid.2009.12.009

De Cooman, R., De Gieter, S., Pepermans, R., Jegers, M., & Acker, F. V. (2009). Development and validation of the work effort scale. *European Journal of Psychological Assessment*, 25(4), 266–273. https://doi.org/doi:10.1027/1015-5759.25.4.266

Demerouti, E., & Cropanzano, R. (2017). The buffering role of sportsmanship on the effects of daily negative events. *European Journal of Work and Organizational Psychology*, 26(2), 263–274. https://doi.org/doi:10.1080/1359432X.2016.1257610

Diehl, M., Coyle, N., & Labouvie-Vief, G. (1996). Age and sex differences in strategies of coping and defense across the life span. *Psychology and Aging*, 11(1), 127–139. https://doi.org/doi:10.1037/0882-7974.11.1.127

Doerwald, F., Scheibe, S., Zacher, H., & Van Yperen, N. W. (2016). Emotional competencies across adulthood: State of knowledge and implications for the work context. *Work, Aging and Retirement*, 2(2), 159–216. https://doi.org/doi:10.1093/workar/waw013

Eatough, E. M., Meier, L. L., Igic, I., Elfering, A., Spector, P. E., & Semmer, N. K. (2016). You want me to do what? Two daily diary studies of illegitimate tasks and employee well-being. *Journal of Organizational Behavior*, 37(1), 108–127. https://doi.org/doi:10.1002/job.2032

Eldesouky, L., & English, T. (2018). Another year older, another year wiser? Emotion regulation strategy selection and flexibility across adulthood. *Psychology and Aging*, 33(4), 572–585. https://doi.org/doi:10.1037/pag0000251

English, T., & John, O. P. (2013). Understanding the social effects of emotion regulation: The mediating role of authenticity for individual differences in suppression. *Emotion*, 13(2), 314–329. https://doi.org/doi:10.1037/a0029847

Fisher, C. D., & Noble, C. S. (2004). A within-person examination of correlates of performance and emotions while working. *Human Performance*, 17(2), 145–168. https://doi.org/doi:10.1207/s15327043hup1702_2

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences*, 30(8), 1311–1327. https://doi.org/doi:10.1016/S0191-8869(00)00113-6

Geldhof, G. J., Preacher, K. J., & Zyphur, M. J. (2014). Reliability estimation in a multilevel confirmatory factor analysis framework. *Psychological Methods*, 19(1), 72–91. https://doi.org/doi:10.1037/a0032138

Gross, J. J. (2015). The extended process model of emotion regulation: Elaborations, applications, and future directions. *Psychological Inquiry*, 26(1), 130–137. https://doi.org/doi:10.1080/1047840X.2015.989751

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. https://doi.org/doi:10.1037/0022-3514.85.2.348

Hagemeister, A., & Volmer, J. (2018). Do social conflicts at work affect employees' job satisfaction? The moderating role of emotion regulation. *International Journal of Conflict Management*, 29(2), 213–235. https://doi.org/doi:10.1108/IJCMA-11-2016-0097

Hertel, G., Rauschenbach, C., Thielgen, M. M., & Krumm, S. (2015). Are older workers more active copers? Longitudinal effects of age-contingent coping on strain at work. *Journal of Organizational Behavior*, 36(4), 514–537. https://doi.org/doi:10.1002/job.1995

Harbers, M., & Achterberg, P. (2012). *Europeans of retirement age: chronic diseases and economic activity*. http://ec.europa.eu/health/sites/health/files/major_chronic_diseases/docs/rivm_report_retirement_en.pdf

John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72(6), 1301–1333. https://doi.org/doi:10.1111/j.1467-6494.2004.00298.x

Johnson, S. J., Holdsworth, L., Hoel, H., & Zapf, D. (2013). Customer stressors in service organizations: The impact of age on stress management and burnout. *European Journal of Work and Organizational Psychology*, 22(3), 318–330. https://doi.org/doi:10.1080/1359432X.2013.772581

Kafetsios, K. (2004). Attachment and emotional intelligence abilities across the life course. *Personality and Individual Differences*, 37(1), 129–145. https://doi.org/doi:10.1016/j.paid.2003.08.006

Kafetsios, K., & Loumakou, M. (2007). A comparative evaluation of the effects of trait emotional intelligence and emotion regulation on affect at work and job satisfaction. *International Journal of Work Organisation and Emotion*, 2(1), 71–87. https://doi.org/doi:10.1504/ijwoe.2007.013616

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692–724. https://doi.org/doi:10.2307/256287

Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. In M. D. Dunnette & L. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, pp. 75–130). Consulting Psychologists Press.

Kessler, E. M., & Staudinger, U. M. (2009). Affective experience in adulthood and old age: The role of affective arousal and perceived affect regulation. *Psychology and Aging*, 24(2), 349–362. https://doi.org/doi:10.1037/A0015352

Kim, H. J., & Agrusa, J. (2011). Hospitality service employees' coping styles: The role of emotional intelligence, two basic personality traits, and socio-demographic factors. *International Journal of Hospitality Management*, 30(3), 588–598. https://doi.org/doi:10.1016/j.ijhm.2010.11.003

Kramer, M. W., & Hess, J. A. (2002). Communication rules for the display of emotions in organizational settings. *Management Communication Quarterly*, 16(1), 66–80. https://doi.org/doi:10.1177/0893318902161003

Kuba, K., & Scheibe, S. (2017). Let it be and keep on going! Acceptance and daily occupational well-being in relation to negative work events. *Journal of Occupational Health Psychology*, 22(1), 59–70. https://doi.org/doi:10.1037/a0040149

Larsen, J. T., Hemenover, S. H., Norris, C. J., & Cacioppo, J. T. (2003). Turning adversity to advantage: On the virtues of the coactivation of positive and negative emotions. In L. G. Aspinwall & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology* (pp. 211–226). American Psychological Association.

Lawton, M. P., Kleban, M. H., Rajagopal, D., & Dean, J. (1992). Dimensions of affective experience in three age groups. *Psychology and Aging*, 7(2), 171–184. https://doi.org/doi:10.1037/0882-7974.7.2.171

Matta, F. K., Erol-Korkmaz, H. T., Johnson, R. E., & Bicaksiz, P. (2014). Significant work events and counterproductive work behavior: The role of fairness, emotions, and emotion regulation. *Journal of Organizational Behavior*, 35(7), 920–944. https://doi.org/doi:10.1002/job.1934

Merlo, K. L., Shaughnessy, S. P., & Weiss, H. M. (2018). Affective influences on within-person changes in work performance as mediated by attentional focus. *European Journal of Work and Organizational Psychology*, 27(1), 126–139. https://doi.org/doi:10.1080/1359432X.2017.1417258

Muthén, L. K., & Muthén, B. O. (1998-2017). *Mplus user's guide* (8 ed.). Muthén & Muthén.

Neubauer, A. B., Smyth, J. M., & Sliwinski, M. J. (2018). Age differences in proactive coping with minor hassles in daily life. *The Journals of Gerontology: Psychological Sciences*, 74(1), 7–16. https://doi.org/doi:10.1093/geronb/gby061

Nezlek, J. B. (2012). Multilevel modeling analyses of diary-style data. In M. R. Mehl & T. S. Connor (Eds.), *Handbook of research methods for studying daily life* (pp. Guilford). New York.

Ng, T. W. H., & Feldman, D. C. (2012). Evaluating six common stereotypes about older workers with meta-analytical data. *Personnel Psychology*, 65(4), 821–858. https://doi.org/doi:10.1111/peps.12003

Oude Mulders, J., Henkens, K., & van Dalen, H. P. (2020). How do employers respond to an aging workforce? Evidence from surveys among employers, 2009–2017. In S. J. Czaja, J. Sharit, & J. B. James (Eds.), *Current and emerging trends in aging and work* (pp. 281–296). Springer International Publishing.

Piazza, J. R., Charles, S. T., & Almeida, D. M. (2007). Living with chronic health conditions: Age differences in affective well-being. *Journal of Gerontology: Psychological Sciences*, 62(6), 313–321. https://doi.org/doi:10.1093/geronb/62.6.P313

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/doi:10.1146/annurev-psych-120710-100452

Porath, C. L., & Erez, A. (2007). Does rudeness really matter? The effects of rudeness on task performance and helpfulness. *Academy of Management Journal*, 50(5), 1181–1197. https://doi.org/doi:10.2307/20159919

Rauschenbach, C., Göritz, A. S., & Hertel, G. (2012). Age stereotypes about emotional resilience at work. *Educational Gerontology*, 38(8), 511–519. https://doi.org/doi:10.1080/03601277.2011.567187

Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 132(1), 1–25. https://doi.org/doi:10.1037/0033-2909.132.1.1

Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: Evidence for an accessibility model of emotional self-report. *Psychological Bulletin*, 128(6), 934–960. https://doi.org/doi:10.1037/0033-2909.128.6.934

Röcke, C., Li, S. C., & Smith, J. (2009). Intraindividual variability in positive and negative affect over 45 says: Do older adults fluctuate less than young adults? *Psychology and Aging*, 24(4), 863–878. https://doi.org/doi:10.1037/A0016276

Ryu, E., & West, S. G. (2009). Level-specific evaluation of model fit in multi-level structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(4), 583–601. https://doi.org/doi:10.1080/10705510903203466

Scheibe, S., & Blanchard-Fields, F. (2009). Effects of regulating emotions on cognitive performance: What is costly for young adults is not so costly for older adults. *Psychology and Aging*, 24(1), 217–223. https://doi.org/doi:10.1037/A0013807

Scheibe, S., English, T., Tsai, J. L., & Carstensen, L. L. (2013). Striving to feel good: Ideal affect, actual affect, and their correspondence across adulthood. *Psychology and Aging*, 28(1), 160–171. https://doi.org/doi:10.1037/a0030561

Scheibe, S., & Moghimi, D. (2021). Age and context effects in daily emotion regulation and well-being at work. *Work, Aging and Retirement*, 7(1), 31–45. https://doi.org/doi:10.1093/workar/waz014

Scheibe, S., Spieler, I., & Kuba, K. (2016). An older-age advantage? Emotion regulation and emotional experience after a day of work. *Work, Aging and Retirement*, 2(3), 307–320. https://doi.org/doi:10.1093/workar/waw010

Scheibe, S., Yeung, D. Y., & Doerwald, F. (2019). Age-related differences in levels and dynamics of workplace affect. *Psychology and Aging*, 34(1), 106–123. https://doi.org/doi:10.1037/pag0000305

Scheibe, S., & Zacher, H. (2013). A lifespan perspective on emotion regulation, stress, and well-being in the workplace. In P. L. Perrewé, J. Halbesleben, & C. C. Rosen (Eds.), *Research in occupational stress and well being (Vol. 11) (pp. 167-197)*. Bingley.

Sheppes, G., & Gross, J. J. (2011). Is timing everything? Temporal considerations in emotion regulation. *Personality and Social Psychology Review*, 15(4), 319–331. https://doi.org/doi:10.1177/1088868310395778

Sliwinski, M. J., & Scott, S. B. (2014). Boundary conditions for emotional well-being in aging: The importance of daily stress. In P. Verhaeghen & C. Hertzog (Eds.), *Emotion, social cognition, and everyday problem solving during adulthood* (pp. 128–141). Oxford University Press.

Sliwinski, M. J., Smyth, J. M., Hofer, S. M., & Stawski, R. S. (2006). Intraindividual coupling of daily stress and cognition. *Psychology and Aging*, 21(3), 545–557. https://doi.org/doi:10.1037/0882-7974.21.3.545

Spieler, I., Scheibe, S., & Stamov Roßnagel, C. (2018). Keeping work and private life apart: Age-related differences in managing the work–non-work interface. *Journal of Organizational Behavior*, 39(10), 1233–1251. https://doi.org/doi:10.1002/job.2283

Stawski, R. S., Scott, S. B., Zawadzki, M. J., Sliwinski, M. J., Marcusson-Clavertz, D., Kim, J., … Smyth, J. M. (2019). Age differences in everyday

stressor-related negative affect: A coordinated analysis. *Psychology and Aging*, *34*(1), 91–105. https://doi.org/doi:10.1037/pag0000309

Tamir, M. (2016). Why do people regulate their emotions? A taxonomy of motives in emotion regulation. *Personality and Social Psychology Review*, *20*(3), 199–222. https://doi.org/doi:10.1177/1088868315586325

Toomey, E. C., & Rudolph, C. W. (2017). Age-conditional effects in the affective arousal, empathy, and emotional labor linkage: Within-person evidence from an experience sampling study. *Work, Aging and Retirement*, *4*(2), 145–160. https://doi.org/doi:10.1093/workar/wax018

Totterdell, P., Hershcovis, M. S., Niven, K., Reich, T. C., & Stride, C. (2012). Can employees be emotionally drained by witnessing unpleasant interactions between coworkers? A diary study of induced emotion regulation. *Work and Stress*, *26*(2), 112–129. https://doi.org/doi:10.1080/02678373.2012.681153

Totterdell, P., & Holman, D. (2003). Emotion regulation in customer service roles: Testing a model of emotional labor. *Journal of Occupational Health Psychology*, *8*(1), 55–73. https://doi.org/doi:10.1037/1076-8998.8.1.55

Truxillo, D. M., Cadiz, D. M., & Hammer, L. B. (2015). Supporting the aging workforce: A review and recommendations for workplace intervention research. *Annual Review of Organizational Psychology and Organizational Behavior*, *2*(1), 12.11–12.31. https://doi.org/10.1146/annurev-orgpsych-032414-111435

Volmer, J., Binnewies, C., Sonnentag, S., & Niessen, C. (2012). Do social conflicts with customers at work encroach upon our private lives? A diary study. *Journal of Occupational Health Psychology*, *17*(3), 304–315. https://doi.org/doi:10.1037/a0028454

Wang, M., Liao, H., Zhan, Y., & Shi, J. (2011). Daily customer mistreatment and employee sabotage against customers: Examining emotion and resource perspectives. *Academy of Management Journal*, *54*(2), 312–334. https://doi.org/doi:10.5465/AMJ.2011.60263093

Wang, M., Liu, S., Liao, H., Gong, Y., Kammeyer-Mueller, J., & Shi, J. (2013). Can't get it out of my mind: Employee rumination after customer mistreatment and negative mood in the next morning. *Journal of Applied Psychology*, *98*(6), 989–1004. https://doi.org/doi:10.1037/a0033656

Wegge, J., van Dick, R., Fisher, G. K., West, M. A., & Dawson, J. F. (2006). A test of basic assumptions of affective events theory (AET) in call centre work. *British Journal of Management*, *17*(3), 237–254. https://doi.org/doi:10.1111/j.1467-8551.2006.00489.x

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 18, pp. 1–74). JAI Press.

Yang, J., & Diefendorff, J. M. (2009). The relations of daily counterproductive workplace behavior with emotions, situational antecedents, and personality moderators: A diary study in Hong Kong. *Personnel Psychology*, *62*(2), 259–295. https://doi.org/doi:10.1111/j.1744-6570.2009.01138.x

Yeung, D. Y., Wong, C. K. M., & Lok, D. P. P. (2011). Emotion regulation mediates age differences in emotions. *Aging & Mental Health*, *15*(3), 414–418. https://doi.org/doi:10.1080/13607863.2010.536136