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Age and Context Effects in Daily Emotion Regulation and Well-Being at Work
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ABSTRACT

With aging, emotion regulation competence is thought to improve, which benefits occupational well-being. Past research on aging and emotion regulation at work has mainly focused on one-time measurements of habitual strategy use. Yet, emotion regulation is a response to changing situational requirements. Using an event-based daily diary approach, we examined whether age moderates the extent to which three characteristics of negative work events (intensity, controllability, and interpersonal nature) predict the adoption of four emotion-regulation strategies (positive reappraisal, distraction, emotion acceptance, and expressive suppression) and subsequent well-being outcomes (job satisfaction and fatigue). Employees \( N = 199 \) aged between 18 and 62 years and of diverse occupational backgrounds reported 1,321 daily negative work events and their emotion-regulatory responses. Results suggest that the emotion-regulation strategies that employees spontaneously use are a function of the intensity and interpersonal nature of events (less so of controllability) and that event characteristics have indirect effects on daily well-being through acceptance and suppression. Younger and older workers responded overall similarly to variations in event characteristics. However, we found age differences in the relationship between event intensity and strategy use. Contrary to predictions of stronger tailoring of strategies to context with age, older workers were more stable in strategy use at higher levels of event intensity, increasing less in suppression and decreasing less in acceptance. Indirect effects of event intensity on well-being point at the adaptive nature of these age-related shifts in strategy use. Findings shed light on adaptive emotion-regulation in daily work life and the role of employee age.

It has been suggested that as workers age, emotional functioning improves. Older workers could therefore better maintain job-related well-being than younger workers (Scheibe & Zacher, 2013) and show more affect-driven work behaviors (such as organizational citizenship and low deviance) that support organizational goals (Ng & Feldman, 2008). These age-related trends have been attributed to a stronger motivation for, and higher competence in, emotion regulation with age. One way in which this is visible is the selection of strategies to regulate emotions. Older workers have been found to report using generally more adaptive emotion-regulation strategies (e.g., reappraisal, problem-solving, or deep acting) and less maladaptive strategies (e.g., suppression, surface acting) than younger workers (Dahling & Perez, 2010; Hertel, Rauschenbach, Thielgen, & Krumm, 2015; Scheibe, Spieler, & Kuba, 2016). Using the framework of affective events theory, we can assume that strategy selection alters emotional responses to affective work events and thereby affects job attitudes and work behaviors (Weiss & Cropanzano, 1996). Age differences in strategy selection therefore may help understand why older age is often associated with positive individual and organizational outcomes.

So far, the organizational literature has largely focused on age-related trends in the average use of emotion-regulation strategies and their consequences. This approach, however, does not account for the contextual nature of emotion regulation. In daily work settings, people activate emotion-regulation strategies when they have a reason to do so, for instance, when an inappropriate remark of a coworker makes them angry, when a patient’s death makes them sad, or when a technical failure makes them anxious to meet an important deadline (Diefendorff, Richard, & Yang, 2008). Therefore, researchers have started to investigate strategy use in daily life and to pay attention to variations in situational context that precipitate the need for emotion regulation (e.g., Diefendorff, Gabriel, Nolan, & Yang, 2019; Dixon-Gordon, Aldao, & De Los Reyes, 2015; Toomey & Rudolph, 2017; Totterdell & Holman, 2003). We adopted this focus on situational contexts of daily emotion regulation also in the present study. Drawing on affective events theory (Weiss & Cropanzano, 1996), we operationalized situational context in terms of three characteristics of negative daily work events that have been recognized as important predictors of the selection and adaptiveness of emotion-regulation strategies: the intensity, controllability, and interpersonal nature of events (English,
Lee, John, & Gross, 2017; Haines et al., 2016; Scheibe, Sheppes, & Staadinger, 2015). So far, the emotion-regulatory responses of younger and older workers to negative work events that vary on these three event characteristics remain largely unknown.

In this article, we develop and test a model of the ways in which employee age moderates the extent to which characteristics of daily negative work events lead to the (de)activation of certain emotion-regulation strategies and subsequent well-being outcomes (see Figure 1). At the center of the model are four emotion-regulation strategies: positive reappraisal (reinterpreting events in a positive light), distraction (diverting attention away from stressful stimuli), emotion acceptance (allowing negative emotions to occur), and expressive suppression (reducing outward signs of emotions). These four strategies were chosen because they represent core regulatory options in the literature on emotion regulation (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010; Gross, 1998; Parkinson & Totterdell, 1999), are frequently used in work settings (Diefendorff et al., 2008), and have been shown to be age-related (Doerwald, Scheibe, Zacher, & Van Yperen, 2016). We assume that employees’ use of these four strategies depends on three characteristics of the work events that they encounter, namely their intensity, controllability, and interpersonal nature. These event characteristics are theorized to affect daily well-being, which we operationalized in terms of job satisfaction and work fatigue, through the adoption of different emotion-regulation strategies. In line with theories of emotional aging which suggest a stronger tailoring of emotion-regulation strategies to context with age (Blanchard-Fields, 2007), we predict that age strengthens the links (i.e., within-person associations) between event characteristics and strategies. By altering emotion-regulatory responses, age may thus shape the ways in which work event characteristics affect employees’ daily well-being.

Our study makes a number of contributions to the literature on work-related emotion regulation and the role of employee age. On the one hand, affective events theory holds that appraisals of work events shape workers’ affect and job satisfaction. On the other hand, basic work on emotion regulation suggests that event appraisals lead to different emotion-regulatory responses and outcomes. This literature also shows that the adoption of different emotion-regulation strategies affects momentary well-being, with some strategies improving well-being and other strategies diminishing well-being. By integrating these bodies of literature, we provide a contextual approach to examining emotion regulation in the workplace. This new approach further helps to enhance knowledge on aging and emotion regulation at work. In contrast to prior research on age- and work-related emotion regulation that focused on age-related trends in the average use of strategies, we study age differences in fluctuations in emotion-regulation strategies using an event-based daily diary design. Our within-individual approach is consistent with ideas that there are predictable day-level effects of affective work events on employee outcomes (Weiss & Cropanzano, 1996) and that emotion regulation is sensitive to context (Aldao, 2013).

**Emotion-Regulation Strategies**

Emotion regulation refers to people’s attempts to influence which emotions they have and how they express them to others (Gross, 1998). In the organizational literature, emotion regulation has traditionally been studied in relation to customer interactions (“emotional labor”), but it has been acknowledged that the reasons and contexts for emotion regulation at work are much broader (Diefendorff et al., 2008). The present study’s focus was on employees’ deliberate efforts to down-regulate negative emotions in any kind of daily work setting, beyond interactions with customers. To this end, employees can use a myriad of strategies, which can be structured along different dimensions. Gross (1998) made a distinction between strategies that act early on in the emotion-regulatory process (antecedent-focused strategies) and those that act only after the emotional response has fully developed (response-focused strategies). Another distinction is between strategies that lead people to process the emotional event or engage with their emotional reactions (engagement strategies) and those that lead people to divert attention away from the emotional event or avoid their feelings (disengagement strategies; Parkinson & Totterdell, 1999).

Most studies on daily emotion regulation in work settings covered strategies that represent the antecedent-focused versus response-focused dimension (e.g., Diefendorff et al., 2019; Toomey & Rudolph, 2017; Totterdell & Holman, 2003). A distinction between engagement and disengagement strategies, in contrast, is rarely made. This latter dimension is important, however, because it reflects qualitatively different modes of dealing with the incoming emotional information (Sheppes et al., 2014) and is needed to structure the space of emotion

![Figure 1. Conceptual model and overview of hypotheses. H1 refers to the association between event intensity and strategy use. H2 refers to the association between event controllability and strategy use. H3 refers to the association between interpersonal nature of events and strategy use. H4 refers to the cross-level interaction between age and event characteristics on emotion-regulation strategy use. H5 concerns the indirect effects—and H6 the age-conditional indirect effects—of event characteristics on well-being via strategy use.](https://academic.oup.com/workar/article-lookup/10.1093/workar/waz014)

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regulation options (Parkinson & Totterdell, 1999). To address this gap, we included in the current study four strategies that represent the cross-over of antecedent-focused versus response-focused and engagement versus disengagement dimensions (see Table 1).

Positive reappraisal is an antecedent-focused engagement strategy and refers to interpreting a negative emotional event to change its emotional impact, for example, by focusing on a positive side effect or long-term resolution of a problem. Distraction is an antecedent-focused disengagement strategy. It involves diverting attention away from the emotional event and reactions and instead focusing on other (more pleasant) things. Emotion acceptance is a response-focused engagement strategy characterized by the willingness to openly receive one's emotions, including negative ones, without trying to change them (Bond & Bunce, 2003). Expressive suppression is a response-focused disengagement strategy. When using this strategy, people try to inhibit the expression of emotions (Gross, 1998). The four emotion-regulation strategies have different costs and benefits, which are outlined in Table 1 and discussed below.

The Effect of Event Characteristics on Emotion-Regulation Strategy Use

Traditionally, studies on emotion regulation focused on the general use and effectiveness of emotion-regulation strategies, yet there is an increasing awareness that emotion regulation is inherently contextualized (Aldao, 2013; Bonanno & Burton, 2013). This perspective implies that one cannot infer much about effective emotion regulation without knowledge of the context in which emotion-regulation strategies are selected and enacted. For example, when negative emotions are highly intense, reappraisal is no longer effective and distraction becomes the preferred regulatory response (Sheppes et al., 2014). Prior research points at three characteristics of affective events that are relevant for strategy selection and success: their intensity, controllability, and interpersonal nature.

Event Intensity

The intensity of the initial emotional reaction to a negative daily work event likely affects strategy selection. Emotion regulation requires that incoming emotional information and the resulting emotional response is modulated either before or after the emotional response is fully developed (Sheppes & Gross, 2012). If the incoming emotional information is less intense, it is relatively easy and effective to engage with the incoming information and produce an alternative interpretation (as in reappraisal) or accept the upcoming feeling to gain relief after a short delay (as in acceptance; Sheppes & Gross, 2012). In contrast, when emotions run high, one can better disengage very early on (through distraction) or—if this is not effective—avoid showing one's resulting feelings in order to keep up appearances (suppression).

Experimental research has shown that engagement strategies such as reappraisal are highly effective at low to moderate levels of stimulus intensity but lose effectiveness at higher stimulus intensity (Sheppes & Gross, 2012). Disengagement strategies such as distraction, in contrast, provide quick relief even in high-intensity situations. Accordingly, when given a choice between distraction and reappraisal in a laboratory task, college students and older adults prefer reappraisal over distraction for low-intensity events but shift toward distraction when facing high-intensity negative

Table 1. Definitions, Benefits, and Costs of Four Emotion-Regulation Strategies Examined in the Present Study

<table>
<thead>
<tr>
<th>Emotion-Regulation Strategy</th>
<th>Definition</th>
<th>Categorization</th>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive reappraisal</td>
<td>Reinterpreting a stressful event to change its emotional impact, by focusing on a positive side effect or long-term resolution (Gross, 1998)</td>
<td>Antecedent-focused, engagement</td>
<td>Effectively diminishes negative emotions; long-lasting adaptation; requires moderate cognitive effort</td>
<td>Does not resolve the stressful situation; ineffective for high-intensity negative situations</td>
</tr>
<tr>
<td>Distraction</td>
<td>Diverting attention away from the emotional event and instead focusing on other (more pleasant) things (Sheppes &amp; Meiran, 2008)</td>
<td>Antecedent-focused, disengagement</td>
<td>Effectively diminishes (even high-intensity) negative emotions and does so quickly; allows focusing on other work tasks; rather effortless</td>
<td>Does not resolve the stressful situation nor does it change one's stress appraisals; rebound effect if stressor is repeatedly encountered</td>
</tr>
<tr>
<td>Emotion acceptance</td>
<td>Openly receiving one's emotions, including negative ones, without trying to change them (Bond &amp; Bunce, 2003)</td>
<td>Response-focused, engagement</td>
<td>Helps understand the nature and source of one's emotional response; effectively diminishes negative emotions after a delay; rather effortless</td>
<td>Does not resolve the stressful situation</td>
</tr>
<tr>
<td>Expressive suppression</td>
<td>Inhibiting the expression of emotions (Gross, 1998)</td>
<td>Response-focused, disengagement</td>
<td>Protects the self; helps to appear professional and/or to not aggravate interpersonal conflicts</td>
<td>Does not reduce negative emotion experience; causes feeling of inauthenticity; cognitively effortless</td>
</tr>
</tbody>
</table>
Hypothesis 1. When faced with more intense events compared with less intense events, employees use disengagement strategies (distraction, suppression) more, and engagement strategies (reappraisal, acceptance) less.

Event Controllability
A second important contextual characteristic is the perceived controllability of daily work events, thus, whether people believe that they are able to manage the actual or expected consequences of the situation (Lazarus & Folkman, 1987). When facing a technical problem, this may involve perceptions that it is possible to use other means to achieve one's work tasks; when facing a conflict with a colleague, this may involve perceptions that the conflict can be quickly resolved by one's own actions. Controllability has been an important factor in early theorizing on stress, with the suggestion that when a situation is uncontrollable and thus cannot be changed, people can still change their emotions through emotion-focused coping (Lazarus & Folkman, 1987). When a situation is controllable, in contrast, problem-focused coping to change the situation should be more functional (see also Elfering et al., 2005). Strategies that effectively dampen negative emotions could backfire in controllable contexts because the accompanying drive to take action would be weakened as well.

Research suggests that reappraisal—an antecedent-focused strategy that effectively reduces negative emotionality—is indeed beneficial in the context of uncontrollable stress but harmful in the context of controllable stress (Troy, Shallcross, & Mauss, 2013). There is a dearth of research on the link between event controllability and emotion-regulation strategies other than reappraisal. Nevertheless, the controllability of circumstances probably affects a wider range of strategies by altering the motives for emotion regulation, fostering a shift from hedonic motives (to feel good) in uncontrollable contexts to instrumental motives (to get work done or help others) in controllable situations (Kalokerinos, Tamir, & Kuppens, 2017). Antecedent-focused strategies (reappraisal and distraction) align with hedonic motives in uncontrollable contexts as they effectively enhance well-being (English et al., 2017). Response-focused strategies (such as suppression), in contrast, align well with instrumental motives in controllable contexts, such as avoiding conflict or keeping the focus on the work task. Acceptance also aligns with instrumental motives as it is often brought in connection with a continued focus on goal pursuit (Bond & Bunce, 2003). Based on this reasoning, we formulated

Hypothesis 2. When facing more controllable compared with less controllable events, employees use response-focused strategies (suppression, acceptance) more, and antecedent-focused strategies (distraction, reappraisal) less.

Interpersonal Nature of Events
Diefendorff and colleagues (2008) compiled a list of daily negative work events that led people to regulate their emotions. Among these events, some were clearly interpersonal in nature, including conflicts with colleagues, supervisors, or customers. Other events were more technical or physical in nature, such as equipment failure or acute health problems that affect people during worktime. Even though others may be present during the latter events, they are not the main reason that these events are stressful. The interpersonal nature of events likely represents a third driver of strategy selection. During interpersonal tensions at work, people may feel that they cannot freely express their emotions. Display rules in many organizational settings dictate that employees should suppress negative emotions and remain professional and friendly to colleagues and clients (Kramer & Hess, 2002). Social situations also activate impression-management motives; employees are motivated to control their impressions in ways that facilitate their work and career goals (Bolino, Long, & Turnley, 2016). Violating display rules and/or leaving “the wrong impression” bear the risk of low performance ratings and organizational penalties (Kramer & Hess, 2002).

It is therefore possible that interpersonal conflicts lead employees to recruit disengagement strategies (distraction and suppression). These strategies would help them quickly dissolve their own anger and frustration or at least maintain a professional appearance, to not exacerbate the conflict partner’s irritation. Emotional displays can also effectively be regulated by antecedent-focused engagement strategies (i.e., acceptance). In comparison, response-focused engagement strategies (i.e., acceptance) effectively diminish negative emotions only after a delay and are therefore a less straightforward choice in interpersonal situations. During noninterpersonal events, in comparison, people do not have to worry as much about their emotional display and the impression they leave with others. Acceptance would then be a viable option as employees have the space to focus on their emotional experience until negative feelings subside.

Some findings speak to possible differences in emotion-regulation strategy use across interpersonal and noninterpersonal contexts. English and colleagues (2017) found that people use suppression more in social situations than when they are alone. Suppression, distraction, and reappraisal were used more when around nonclose others when compared with close others. Research in the work setting showed that people who hold jobs requiring frequent interactions with others report more surface acting (overlapping with suppression) and deep acting (overlapping with distraction and reappraisal; Brotheridge & Grandey, 2002). In a study on recalled work events, distraction was most frequently reported in relation to coworker and customer conflicts, and suppression was most frequently reported in relation to customer events, but also in response to personal and physical problems (Diefendorff et al., 2008). Positive reappraisal was among the most frequent strategies in relation to noninterpersonal events, but was also used often in response to supervisor and customer conflicts.
Thus, there is no clear picture about reappraisal’s link with social context. There is also a lack of prior research on acceptance in relation to interpersonal or noninterpersonal events. Based on theoretical considerations and the evidence available so far, we formulated:

Hypothesis 3. In response to interpersonal work events employees use disengagement strategies (suppression and distraction) and antecedent-focused engagement strategies (reappraisal) more, and response-focused engagement strategies (acceptance) less, than in response to other types of events.

Aging and Emotion Regulation in Response to Work Events

Life-span theories suggest that emotion regulation patterns change across adulthood, in terms of both the selection and the consequences of strategy use. Two widely proposed mechanisms underlining age-related change in workers’ emotion regulation are life experience and motivation (Scheibe & Zacher, 2013). According to the life experience account, people gain experience in emotion regulation as they transition through adulthood and encounter different emotional situations both at work and outside work. Workers learn over the years which strategy is most effective in a given context and automatize strategy use so that it becomes more effective and less cognitively costly (Blanchard-Fields, 2007; Charles, 2010; Morgan & Scheibe, 2014). According to the motivation account, aging is associated with a changing time perspective and a shift in focus from future to present (i.e., socioemotional selectivity theory; Carstensen, 2006). Whereas younger workers are more instrumentally motivated and seek to obtain longer-term benefits (e.g., work-related knowledge or higher status), older workers have stronger hedonic motives and prioritize emotional well-being and meaning in the short term (e.g., social harmony or comfort). This, in turn, should lead to an increasing focus on prohedonic emotion regulation in daily work settings as workers get older (Scheibe & Zacher, 2013).

In support of the notion that people increasingly focus on and become experts in emotion regulation as they get older, older adults tend to report greater perceived emotional control (Kessler & Staudeinger, 2009) and are able to report than younger adults to align their current affect with their desired affect (Scheibe, English, Tsai, & Carstensen, 2013). Some experimental studies show that older adults are more effective in using certain strategies to regulate emotions or regulate emotions at lower cognitive costs (Doerwald et al., 2016). In work settings, studies have shown that older workers are more inclined to use generally adaptive emotion-regulation strategies (reappraisal, deep acting) and are less likely to use generally maladaptive strategies (suppression, surface acting), which benefits their well-being both at the daily level (Scheibe et al., 2016) and in the longer term (Dahling & Perez, 2010; Hertel et al., 2015). Older workers also appear to draw more well-being and performance benefits from using suppression than younger suppression workers (Peng, Tian, Jex, & Chen, 2017; Yeung & Fung, 2012; but see Bal & Smit, 2012). These findings dovetail with meta-analytic evidence that worker age has a positive (though small) association with positive job attitudes and a negative association with symptoms of burnout (Ng & Feldman, 2010).

Considering the contextual nature of emotion regulation, effective emotion regulation would, however, not merely entail using putatively adaptive strategies more often than putatively maladaptive strategies, no matter the situational requirements. Rather, it would entail having a repertoire of strategies available and knowing when to use which strategy to achieve desired effects. Experience-sampling data suggest that people with higher well-being adjust reappraisal use to the controllability of circumstances (Haines et al., 2016). People with higher well-being were found to use reappraisal more in uncontrollable situations and less in controllable situations, whereas the reverse was true for people with low well-being. Experimental research further shows that firefighters who flexibly adapt reappraisal and distraction use to changes in stimulus intensity are spared from posttraumatic stress symptoms despite past exposure to work-related trauma (Levy-Gigi et al., 2016).

There is limited research on age differences in adapting emotion-regulation strategies to contextual factors, with mixed results. Research by Blanchard-Fields, Mienaltowski, and Seay (2007) and Blanchard-Fields, Stein, and Watson (2004) suggests that older adults adjust emotion-regulation strategies to interpersonal versus instrumental problems and to the level of emotional intensity, whereas younger adults use similar strategies regardless of problem type and emotional intensity. Another study which asked younger and older adults to recall emotional situations and regulatory responses from the past week found that older adults’ use of acceptance varied with emotional intensity (i.e., they recalled using acceptance less at high than moderate-intensity levels), while acceptance use was unaffected by intensity in younger adults (Schirda, Valentine, Aldao, & Prakash, 2016). Yeung and colleagues (2015) found that older workers recall more avoidance (aka suppression) in supervisor conflicts than in coworker or subordinate conflicts, whereas younger workers recall about equal levels of avoidance across the three conflict partners. Only few studies so far have examined age differences in adapting emotion-regulation strategies to situational context in daily life. One study with a community sample has failed to provide evidence that older adults are more flexible in their strategy use, which would suggest sensitivity to context; rather middle-aged and older adults were found to be more stable in their strategy use across sampling occasions, compared with younger adults (Eldersouky & English, 2018). However, contextual factors were not assessed. It is possible that older adults experienced less variation in context and therefore had less of a reason to adjust strategy use. Toomey and Rudolph (2017) examined age differences in momentary surface and deep acting following interpersonal encounters at work. They found that the intensity of events had more impact on younger than older workers’ deep and surface acting. Yet effects of event intensity on strategy use were indirect and transmitted through empathic reactions.

Going beyond previous research, the current study assessed contextual variations as direct antecedent of shifts in strategy use in daily work settings. We examined whether age would shape the ways in which employees adapt their use of emotion-regulation strategies to variations in work event characteristics. A stronger focus on, and higher expertise in emotion regulation, as theorized for older workers, should be visible in a stronger tailoring of strategy use to the nature of work events (Blanchard-Fields, 2007). Specifically, we stated...
Hypothesis 4. The within-person associations between event characteristics (intensity, controllability, and interpersonal nature) and emotion-regulation strategies (reappraisal, distraction, acceptance, and suppression) are stronger at higher worker age.

Consequences for Daily Well-Being

Decisions about emotion-regulation strategy use likely have consequences for workers’ daily well-being. To capture these consequences, we examined within-person associations of the four strategies (reappraisal, distraction, acceptance, and suppression) with job satisfaction and fatigue assessed at the end of the workday. *Job satisfaction* represents employees’ emotional attitude toward their job based on an evaluation of their job experiences (Spector, 1997). Daily job satisfaction should be enhanced to the extent that emotion regulation helps people maintain positive affect and a focus on their work tasks. *Work-related fatigue* is an experience of mental, emotional, and physical tiredness at the end of the work day and is well suited to assess the regulatory effort associated with emotion-regulation strategy use (Frone & Tidwell, 2015).

Experimental research has established that emotion-regulation strategies differ in their affective consequences and regulatory effort to enact them (Table 1). According to a meta-analysis of laboratory studies that instruct people to use particular strategies, distraction and reappraisal are both effective in reducing negative emotion experience and expression, whereas suppression does not reduce negative feelings, although it does effectively reduce emotion expression (Sheppes & Gross, 2012; Webb, Miles, & Sheeran, 2012). Distraction in particular provides quick relief from stressors, yet it was shown to have a “rebound” effect in the sense that participants reacted more strongly to previously distracted stressors than to previously reappraised or unregulated stressors (Thiruchselvam, Blechert, Sheppes, Rydstrom, & Gross, 2011). This reduces the benefits of distraction for emotion experience over longer time periods as unresolved stressors have to be continuously regulated, whereas the affective benefits of reappraisal tend to persist. Even though acceptance entails embracing even negative emotions, this strategy has also proven effective in reducing negative emotion experience sometime after the mood-inducing event, probably by diffusing negative emotions more quickly than is the case for other strategies (Campbell-Sills, Barlow, Brown, & Hofmann, 2006).

The four strategies also require different levels of regulatory effort, and accordingly, strategy use during worktime likely depletes regulatory resources to a different extent (Beal et al., 2005). Work fatigue at the end of the workday is a good indication of how much regulatory resources were exhausted during worktime. Several experimental studies have shown that suppression requires higher levels of cognitive effort to enact than reappraisal (Richards & Gross, 2000), which in turn requires more effort than distraction (Sheppes & Meiran, 2008). Acceptance means refraining from controlling negative emotions, which spares cognitive resources. Participants instructed to use acceptance following mood induction performed better on a subsequent cognitive task than participants instructed to use suppression (Alberts, Schneider, & Martijn, 2012). Moreover, in samples of employees, habitual use of acceptance has been linked with lower levels of emotional exhaustion and fatigue at the end of the workday (Kuba & Scheibe, 2017). Taken together, we formulated

Hypothesis 5. The within-person associations between strategy use and well-being indicators (high job satisfaction, low fatigue) are most positive for reappraisal and acceptance, followed by distraction. Suppression should be negatively associated with well-being.

To the extent that employee age strengthens associations between events characteristics and emotion-regulation strategy use (see Hypothesis 4), the indirect effects on well-being would be stronger too. If, for example, controllable events lead to more acceptance especially for older workers, and if acceptance would be associated with higher job satisfaction and fatigue, then it follows that older workers benefit more from controllable work events than young workers through their stronger reliance on acceptance. In fact, such a prediction is in line with evidence that some facets of job control are more strongly linked with job satisfaction in older than younger workers (Ng & Feldman, 2015). Exploring age-conditional indirect effects of affective work events on daily well-being will aid the development of more precise theories about aging and emotion regulation at work.

Hypothesis 6. Age strengthens the indirect within-person effects of event characteristics on well-being via emotion-regulation strategy use. All indirect effects are stronger with increasing age.

METHOD

Sample and Procedure

The data for the present study were collected in an event-based daily diary study with measurements across three work weeks. Ten psychology students (of Dutch and German nationality) recruited the participants as part of their Bachelor’s project in October and November 2016, approaching employed persons from their personal and professional network via personal contact, e-mail, and social media. Together, the group approached 354 persons of which 209 completed the baseline survey and at least one daily entry (response rate of 59%). Over the course of 3 weeks, participants received a daily link at the end of each workday and were instructed to complete at least 10 daily surveys. In the daily surveys, they were asked to report their work-related fatigue during the workday first, followed by a salient negative work event that occurred that day. Subsequently, participants were asked to report different event characteristics and the emotion-regulation strategies that they used in response to the event. As an appreciation of their time, participants received personalized feedback on their daily well-being and emotion regulation and participated in a raffle of eight vouchers for an online shop worth between €20 and €100. Study procedures were approved by the Ethical Committee Psychology at the University of Groningen.

The 209 German and Dutch employees together provided 1,651 valid daily observations ($M = 7.93, SD = 4.53$, range 1–19). However, on 330 days (20% of days), no negative events were experienced, and 10 participants did not report any events at all. As we were interested in emotion-regulatory responses to negative work events, we selected only assessments when participants reported a negative event. This led to a final sample of 1,321 daily entries by 199 participants included in analyses, with a mean number of event days of $6.64$ ($SD = 4.39$) and a
range of 1–17. Importantly, the proportion of event days was unrelated to age \((p > .05)\). Of the 199 participants, 51.8% were female, 45.7% were male, and 2.5% did not indicate their gender. The age range was between 18 and 62 years \((M = 36.35, SD = 13.65)\). The majority of participants had a college degree (43.2%) or high-school diploma (23.1%). Participants represented diverse occupational sectors (e.g., health and social sector, industry and production, education) with a range of work hours between 12 and 60 hr per week \((M = 39.67, SD = 8.83)\). Organizational tenure ranged from less than 1–34 years \((M = 7.46, SD = 8.21)\) and 29.1% held a supervisory position.

**Measures**

To conduct the study in the participants’ native language, all items either were derived from validated German or Dutch translations or were translated by the research team. Daily measures were completed in the order shown below.

**Daily job satisfaction**

In accordance with recommendations by Wanous, Reichers, and Hudy (1997), we used a single-item measure to assess job satisfaction. The item “Taking everything into consideration, how satisfied are you with your work today?” was rated on a seven-point Likert scale ranging from 1 (extremely dissatisfied) to 7 (extremely satisfied).

**Daily fatigue**

We employed an adjusted version of the Three-Dimensional Work Fatigue Inventory (Frone & Tidwell, 2015) to assess three types of fatigue: Physical fatigue (i.e., “To what extent do you feel physically worn out today?”), cognitive fatigue (i.e., “To what extent do you feel mentally exhausted today?”), and emotional fatigue (i.e., “To what extent do you want to avoid anything that takes too much emotional energy today?”). We changed the original scale by adjusting it to the daily level and reducing the number of items to three. For each subscale, we selected the item with the highest factor loading reported by Frone and Tidwell. All three items were rated on a 7-point scale ranging from 1 (not at all) to 7 (extremely). The average reliability across the 10 study days was .79 (range from .74 to .85).

**Event characteristics**

Participants reported the most important negative event that they experienced on the present day in their own words. Specifically, they were instructed to recall an unpleasant or stressful event during their workday and to consider different kinds of everyday hassles and frustrations. Subsequently, they categorized the event according to a drop-down menu with 12 options adjusted from Diefendorff and colleagues (2008). Options included interactions with customers (19% of reported events), interactions with coworkers (18%), interactions with supervisors (9%), conflict between others (3%), making mistakes (3%), technical or work tool problems (12%), personal problems (3%), physical illness/fatigue (3%), high workload (13%), low workload (3%), and aversive work conditions (7%). We subsequently grouped these into interpersonal events (interactions with customers, coworkers, and supervisors; coded 1) versus other types of events (coded 0). A diverse rest category (8%) was also offered and subsequently coded into interpersonal and other types of events. Interpersonal and other types of events were roughly equally distributed (47% vs. 53%).

Participants further rated the event intensity (i.e., “How intense was your emotional reaction to the event?”) and controllability (i.e., “How controllable were the expected or actual consequences of the event?”) on a scale from 1 (not at all) to 7 (extremely).

**Emotion-regulation strategies**

To assess event-specific strategy use, participants were asked to report how they dealt with their feelings elicited by the event during the workday. We assessed four emotion-regulation strategies with three items each. Reappraisal (e.g., “I thought about the event in a way that helps me to experience less emotion.”), distraction (e.g., “I tried to distract myself from the content and/or emotions of the event.”), and suppression (e.g., “I tried not to let my feelings show.”) subscales were retrieved from the State Emotion Regulation Questionnaire by Quigley and Dobson (2014). Emotion acceptance (e.g., “I criticize myself for having irrational or inappropriate emotions.”) was assessed with a subscale of the Kentucky Inventory of Mindfulness Skills (Baer, Smith, & Allen, 2004) and was reversed coded. The scale for all items ranged from 1 (not at all) to 7 (extremely). Note that the use of multi-item scales to assess regulation strategies is an extension of earlier studies of emotion regulation in daily live which almost exclusively used single-item measures (e.g., Diefendorff et al., 2019; Eldesouky & English, 2018; Totterdell & Holman, 2003).

A multilevel confirmatory factor analysis with MPlus 8 (Muthén & Muthén, 1998–2017) confirmed the four-factor structure at both the person and day levels (root mean square error of approximation = 0.037; comparative fit index = 0.966; Tucker–Lewis index = 0.953; \(\chi^2 = 272.547, df = 97, p < .001\); note that the residual variance of one acceptance item was fixed to zero because it was negative and nonsignificant if freely estimated). We used aggregated item scores for each strategy in further analyses.

**Statistical Analyses**

To account for the nested data structure and following recommendations by Preacher, Zupur, and Zhang (2010), we adopted a multilevel structural equation modeling approach using MPlus 8. More specifically, we tested Hypotheses 1–6 by means of a 1-1-1 mediation model with a cross-level moderation. In the within-person part of our model (see Figure 1), the characteristics of daily negative work events (intensity, controllability, interpersonal nature) predicted occupational well-being outcomes (job satisfaction, fatigue) through emotion-regulation strategies (reappraisal, distraction, acceptance, suppression). Direct paths from event characteristics to outcomes were also included to accurately test for 1-1 mediation. All variables included in the model were assessed at the same day. The three event characteristics were person-mean centered (with the exception of interpersonal nature which was dummy-coded). Chronological age was specified as a Level 2 predictor of both strategy use and the slopes between each event characteristic and each emotion-regulation strategy, and was grand-mean centered. The four strategies were allowed to covary. In cases of significant cross-level interactions between event characteristics and age, we used the MODEL CONSTRAINTS option in MPlus to estimate simple slopes for low (−1 SD) and high (+1 SD) values of age.

Indirect effects of the mediation model, as specified in Hypothesis 5, were only estimated when both the a path (from a given event
characteristic to a given strategy) and the b path (from a given strategy to a given outcome) were significant. For reasons of parsimony, we specified the a path as random and the b path as fixed. We thus assumed that the effect of event characteristics on strategies may vary between persons (for example as a function of age), whereas the effect of strategies on outcomes would be constant across persons. Age-conditional indirect effects (Hypothesis 6) were estimated only in cases in which age had a significant cross-level effect on the a path. Indirect and conditional indirect effects were estimated via the MODEL CONSTRAINTS option in MPlus following recommendations by Preacher and colleagues (2010). As indirect effects are often not normally distributed, we used Bayesian analysis (with default starting values) to obtain nonsymmetric 95% credibility intervals (CI).

RESULTS

Descriptive Analyses

Table 2 shows the means, standard deviations, and intercorrelations of the study variables. Furthermore, it provides the interclass-correlation coefficients (ICC) for the day-level variables. As can be seen, ICCs range from .14 to .40, suggesting substantial within-person variance that can best be explained with multilevel analysis. Table 2 further shows that age was unrelated to the three types of event characteristics, intensity, controllability, and interpersonal nature. Age correlated negatively with distraction (r = −.18), suggesting that younger workers tended to use this strategy more overall than older workers. Age did not correlate with the other three emotion-regulation strategies, nor with job satisfaction or fatigue.

Work Event Characteristics, Age, and Emotion-Regulation Strategies

Hypotheses 1–4 addressed the effects of affective event characteristics and age on the use of emotion-regulation strategies. Table 3 shows that emotionally intense events predicted less reappraisal (B = −0.182, p < .001) and less acceptance (B = −0.135, p < .001). These findings partially support Hypothesis 1, which anticipated a shift away from engagement strategies (confirmed for both reappraisal and acceptance) and toward disengagement strategies (not confirmed).

Table 2. Descriptives and Intercorrelations of Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>ICC 1</th>
<th>ICC 2</th>
<th>ICC 3</th>
<th>ICC 4</th>
<th>ICC 5</th>
<th>ICC 6</th>
<th>ICC 7</th>
<th>ICC 8</th>
<th>ICC 9</th>
<th>ICC 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between-person level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Age</td>
<td>36.35 (13.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Within-person level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Event intensity</td>
<td>3.62 (0.73)</td>
<td>.27</td>
<td>.16</td>
<td>−.15</td>
<td>.05</td>
<td>−.23</td>
<td>−.02</td>
<td>−.16</td>
<td>.06</td>
<td>−.24</td>
<td>.30</td>
</tr>
<tr>
<td>3. Event controllability</td>
<td>2.96 (0.77)</td>
<td>.23</td>
<td>.14</td>
<td>.16</td>
<td>.05</td>
<td>.09</td>
<td>−.01</td>
<td>.03</td>
<td>.06</td>
<td>.06</td>
<td>−.03</td>
</tr>
<tr>
<td>4. Event interpersonal nature</td>
<td>0.47 (0.19)</td>
<td>.14</td>
<td>.12</td>
<td>.28</td>
<td>.19</td>
<td>.03</td>
<td>−.03</td>
<td>−.07</td>
<td>.08</td>
<td>−.01</td>
<td>−.05</td>
</tr>
<tr>
<td>5. Reappraisal</td>
<td>4.07 (0.80)</td>
<td>.32</td>
<td>.03</td>
<td>.02</td>
<td>.15</td>
<td>.17</td>
<td>.40</td>
<td>−.12</td>
<td>.37</td>
<td>.06</td>
<td>−.09</td>
</tr>
<tr>
<td>6. Distraction</td>
<td>3.53 (0.89)</td>
<td>.39</td>
<td>−.17</td>
<td>.07</td>
<td>.37</td>
<td>.07</td>
<td>.57</td>
<td>−.29</td>
<td>.33</td>
<td>−.06</td>
<td>−.01</td>
</tr>
<tr>
<td>7. Acceptance</td>
<td>5.43 (0.97)</td>
<td>.39</td>
<td>−.02</td>
<td>.02</td>
<td>−.44</td>
<td>−.26</td>
<td>−.32</td>
<td>−.58</td>
<td>−.26</td>
<td>.14</td>
<td>−.09</td>
</tr>
<tr>
<td>8. Suppression</td>
<td>3.76 (0.90)</td>
<td>.29</td>
<td>−.05</td>
<td>.28</td>
<td>.46</td>
<td>.12</td>
<td>.54</td>
<td>.66</td>
<td>.55</td>
<td>−.07</td>
<td>.10</td>
</tr>
<tr>
<td>9. Job satisfaction</td>
<td>5.05 (0.75)</td>
<td>.28</td>
<td>.11</td>
<td>−.13</td>
<td>−.22</td>
<td>.08</td>
<td>.02</td>
<td>−.08</td>
<td>.15</td>
<td>−.13</td>
<td>−.32</td>
</tr>
<tr>
<td>10. Fatigue</td>
<td>3.26 (0.67)</td>
<td>.39</td>
<td>−.10</td>
<td>.17</td>
<td>.68</td>
<td>.15</td>
<td>.08</td>
<td>.30</td>
<td>−.47</td>
<td>.37</td>
<td>−.27</td>
</tr>
</tbody>
</table>

Note. ICC = interclass-correlation coefficients. Level 1 N = 1321; Level 2 N = 199. 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. Correlations displayed in bold are significant at p < .05.

Controllable events evoked more suppression (B = 0.065, p = .025) but were unrelated to the other strategies. This finding provides only limited support for Hypothesis 2, which predicted higher use of response-focused strategies (confirmed for suppression but not acceptance) and lower use of antecedent-focused strategies (not confirmed).

In response to interpersonal events, compared with other types of events, participants reported engaging more in suppression (B = 0.266, p < .001) and reappraisal (B = 0.145, p = .015), but less in acceptance (B = −0.153, p = .015). Thus, Hypothesis 3 was largely confirmed as interpersonal work events led to the combined use of reappraisal and suppression, whereas they deactivated emotion acceptance. However, we did not confirm an increase in use of distraction.

There were only two cross-level interaction effects between event characteristics and age. Contrary to Hypothesis 4, which predicted stronger within-person associations between event characteristics and strategy use with age, two associations were weaker at higher worker age (Table 3). Specifically, older workers reacted with less of an increase in suppression (cross-level interaction: B = −0.006, p = .032) and less of a drop in acceptance (B = 0.006, p = .024) in intense situations than younger workers did. The simple-slope analysis, depicted in Figure 2, suggests a significant and negative relationship between event intensity and acceptance for younger workers (roughly age 23, B = −0.218, p < .001, 95% CI [−0.331, −0.114]), but this effect was weakened to trend level for older workers (roughly age 49, B = −0.071, p = .090, 95% CI [−0.170, 0.032]). Moreover, there was a significant and positive relationship between event intensity and suppression for younger workers (B = 0.135, p = .014, 95% CI [0.019, 0.248]), but not for older workers (B = −0.016, p = .385, 95% CI [−0.136, 0.097]). Age did not moderate the effect of interpersonal nature and controllability of events on strategy use (although note that there were additional statistical trends for an age × interpersonal event interaction on reappraisal, B = −0.008, p = .073; and for an age × intensity interaction on distraction, B = −0.003, p = .094, which were both in line with Hypothesis 4).

In summary, participants were relatively responsive to different event characteristics, varying their strategy use especially in relation to event intensity and controllability. The effects of event characteristics on strategy use were generally stronger for younger workers (roughly age 23, p = .014, 95% CI [0.019, 0.248]) than for older workers (roughly age 49, p = .071, 95% CI [−0.170, 0.032]), indicating that younger workers relied more on emotion-regulation strategies in response to stressful events. Furthermore, the effects of event characteristics on strategy use were stronger for younger workers (roughly age 23, p = .014, 95% CI [0.019, 0.248]) than for older workers (roughly age 49, p = .071, 95% CI [−0.170, 0.032]), indicating that younger workers relied more on emotion-regulation strategies in response to stressful events.
Age and Daily Emotion Regulation at Work

• 9

to the intensity and interpersonal nature of events. At the same time, younger and older workers differed in their response to event intensity, with younger workers adjusting strategy use more than older workers as event intensity increased. Younger and older participants responded in a comparable manner to variations in event controllability and interpersonal nature.

Hypothesis 5 addressed the relationships between emotion regulation and well-being outcomes, and Hypothesis 6 addressed age-conditional indirect effects of event characteristics on daily job satisfaction and fatigue through the (de)activation of particular emotion-regulation strategies. Table 4 shows that daily job satisfaction was unrelated

Table 3. Unstandardized Coefficients From Multilevel Structural Equation Model Predicting Daily Strategy Use

<table>
<thead>
<tr>
<th></th>
<th>Reappraisal</th>
<th></th>
<th></th>
<th>Distraction</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>p</td>
<td>95% CI</td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Within-person effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity</td>
<td>−0.178***</td>
<td>0.037</td>
<td>&lt;.001</td>
<td>[−0.251,−0.103]</td>
<td>−0.030</td>
<td>0.032</td>
</tr>
<tr>
<td>Controllability</td>
<td>0.030</td>
<td>0.025</td>
<td>.113</td>
<td>[−0.015, 0.079]</td>
<td>−0.011</td>
<td>0.025</td>
</tr>
<tr>
<td>Interpersonal nature</td>
<td>0.159*</td>
<td>0.076</td>
<td>.012</td>
<td>[0.021, 0.312]</td>
<td>−0.067</td>
<td>0.076</td>
</tr>
<tr>
<td>Residual variance</td>
<td>1.172***</td>
<td>0.055</td>
<td>&lt;.001</td>
<td>[1.069, 1.286]</td>
<td>1.171***</td>
<td>0.053</td>
</tr>
<tr>
<td>Between-person effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.005</td>
<td>0.006</td>
<td>.174</td>
<td>[−0.006, 0.016]</td>
<td>−0.009+</td>
<td>0.006</td>
</tr>
<tr>
<td>Age × intensity</td>
<td>−0.002</td>
<td>0.003</td>
<td>.216</td>
<td>[−0.008, 0.003]</td>
<td>−0.003+</td>
<td>0.002</td>
</tr>
<tr>
<td>Age × controllability</td>
<td>0.003</td>
<td>0.002</td>
<td>.120</td>
<td>[−0.002, 0.006]</td>
<td>0.000</td>
<td>0.002</td>
</tr>
<tr>
<td>Age × interpersonal</td>
<td>−0.008*</td>
<td>0.005</td>
<td>.070</td>
<td>[−0.017, 0.005]</td>
<td>−0.005</td>
<td>0.006</td>
</tr>
<tr>
<td>Residual variance</td>
<td>0.732***</td>
<td>0.109</td>
<td>&lt;.001</td>
<td>[0.551, 0.977]</td>
<td>0.828***</td>
<td>0.118</td>
</tr>
</tbody>
</table>

Note. CI = Bayesian credibility interval. Level 1 N = 1321; Level 2 N = 199. Unstandardized coefficients are shown.
* p ≤ .05, ** p ≤ .01, *** p ≤ .001, + p ≤ .10.

Figure 2. Cross-level moderation between event intensity and age in predicting emotion acceptance and expressive suppression. The analysis accounts for the other two event characteristics (interpersonal nature and controllability). Note that the scale ranged from 1 to 7.
Table 4. Unstandardized Coefficients From Multilevel Structural Equation Model Predicting Daily Well-Being

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction</th>
<th>Fatigue</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>p</td>
<td>95% CI</td>
</tr>
<tr>
<td><strong>Within-person effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reappraisal</td>
<td>0.052*</td>
<td>0.033</td>
<td>.055</td>
<td>[−0.012, 0.115]</td>
</tr>
<tr>
<td>Distraction</td>
<td>−0.047*</td>
<td>0.033</td>
<td>.076</td>
<td>[−0.112, 0.017]</td>
</tr>
<tr>
<td>Acceptance</td>
<td>0.078**</td>
<td>0.028</td>
<td>.004</td>
<td>[0.023, 0.133]</td>
</tr>
<tr>
<td>Suppression</td>
<td>−0.031</td>
<td>0.026</td>
<td>.111</td>
<td>[−0.082, 0.019]</td>
</tr>
<tr>
<td><strong>Event characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity</td>
<td>−0.188***</td>
<td>0.028</td>
<td>&lt;.001</td>
<td>[−0.244, −0.132]</td>
</tr>
<tr>
<td>Controllability</td>
<td>0.017</td>
<td>0.023</td>
<td>.239</td>
<td>[−0.030, 0.063]</td>
</tr>
<tr>
<td>Interpersonal Nature</td>
<td>0.017</td>
<td>0.066</td>
<td>.411</td>
<td>[−0.111, 0.144]</td>
</tr>
<tr>
<td>Residual variance within-person</td>
<td>1.122***</td>
<td>0.048</td>
<td>&lt;.001</td>
<td>[1.033, 1.220]</td>
</tr>
<tr>
<td>Residual variancebetween-person</td>
<td>0.518***</td>
<td>0.080</td>
<td>&lt;.001</td>
<td>[0.382, 0.692]</td>
</tr>
<tr>
<td><strong>Indirect effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity → acceptance</td>
<td>−0.011**</td>
<td>0.005</td>
<td>.004</td>
<td>[−0.023, −0.003]</td>
</tr>
<tr>
<td>Controllability → suppression</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.005*</td>
</tr>
<tr>
<td>Interpersonal → acceptance</td>
<td>−0.012*</td>
<td>0.008</td>
<td>.018</td>
<td>[−0.034, −0.001]</td>
</tr>
<tr>
<td>Interpersonal → suppression</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.019***</td>
</tr>
<tr>
<td><strong>Conditional indirect effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity → acceptance (young)</td>
<td>−0.016*</td>
<td>0.007</td>
<td>.004</td>
<td>[−0.032, −0.004]</td>
</tr>
<tr>
<td>Intensity → acceptance (old)</td>
<td>−0.004</td>
<td>0.005</td>
<td>.142</td>
<td>[−0.015, 0.004]</td>
</tr>
<tr>
<td>Intensity → suppression (young)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.009*</td>
</tr>
<tr>
<td>Intensity → suppression (old)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>−0.002</td>
</tr>
</tbody>
</table>

Note. CI = Bayesian credibility interval. Level 1 N = 1321; Level 2 N = 199. Unstandardized coefficients are shown.

*Indirect effects were only estimated if both the a path (from event characteristic to strategy) and the b path (from strategy to outcome) were significant. †Conditional indirect effects were only estimated if the a path (from event characteristic to strategy) was moderated by age and the b path (from strategy to outcome) was significant. Young and old refer to −1 SD and +1 SD of age, respectively.

*p ≤ .05; **p ≤ .01; ***p ≤ .001; .p ≤ .10.
to suppression, but was higher when participants relied more on acceptance \((B = 0.078, p = .004)\). The positive relationship between reappraisal and job satisfaction \((B = 0.052, p = .055)\) and the negative relationship between distraction and job satisfaction \((B = -0.047, p = .076)\) only reached trend level. Daily fatigue was unrelated to the strategy of distraction but was positively associated with suppression \((B = 0.074, p < .001)\). The negative relationships between reappraisal and fatigue \((B = -0.048, p = .039)\); note that the Bayesian 95% CI given in Table 4 included zero) and between acceptance and fatigue \((B = -0.031, p = .093)\) only reached trend level.

As shown in the lower part of Table 4, event intensity had a negative indirect effect on job satisfaction through acceptance \((B = -0.011, p = .004, 95\% CI \left[ -0.023, -0.003 \right])\), suggesting that intense work events decrease job satisfaction because they decrease acceptance. However, the age-conditional indirect effects suggest that this effect was only significant for younger workers \((B = -0.016, p = .004, 95\% CI \left[ -0.034, -0.004 \right])\), and not for older workers \((B = -0.005, p = 0.94, 95\% CI \left[ -0.016, 0.002 \right])\). Relatively, event intensity indirectly increased fatigue through suppression for younger workers \((B = 0.009, p = .014, 95\% CI \left[ 0.001, 0.022 \right])\), but not for older workers \((B = -0.001, p = .385, 95\% CI \left[ -0.011, 0.007 \right])\). Event controllability had a positive indirect effect on fatigue through suppression \((B = 0.005, p = .025, 95\% CI \left[ 0.000, 0.012 \right])\), which was not moderated by age. Finally, interpersonal work events had a negative indirect effect on job satisfaction through acceptance \((B = -0.012, p = .018, 95\% CI \left[ -0.034, -0.001 \right])\) and a positive indirect effect on fatigue through suppression \((B = 0.019, p < .001, 95\% CI \left[ 0.006, 0.041 \right])\), none of which were moderated by age. This implies that interpersonal events diminish both aspects of well-being more than noninterpersonal events do because they lead employees to accept their feelings less and suppress them more.

In sum, all three event characteristics indirectly affected daily well-being through the (de)activation of acceptance and suppression. In contrast to Hypothesis 6, two of the indirect effects were weaker (rather than stronger) for older workers. This is not surprising as it follows logically from findings for the cross-level moderation of age on event-strategy slopes (see Results for Hypothesis 4). Importantly, however, all indirect effects that we identified indicate a reduction in well-being (by decreasing job satisfaction or increasing fatigue). Thus, the age-conditional indirect effects point at a drop in well-being in younger workers in face of intense work events, but maintenance of well-being in older workers.

**DISCUSSION**

In the present study, we examined emotion-regulation strategy use in younger and older workers, retrospectively assessed each evening after work-time, while considering different characteristics of negative work events that gave rise to these strategies in the first place. We assumed that by altering emotion-regulatory responses to different work event characteristics, age shapes the ways in which affective work experiences affect employees’ daily well-being.

As expected, we found that higher emotional intensity of events is associated with lower use of reappraisal and acceptance (the two engagement strategies). Intensity was unrelated to distraction and suppression (the two disengagement strategies). At first thought one could expect that more intense events trigger more emotion regulation overall. However, reappraisal tends to lose effectiveness at higher emotion intensity as it is harder to override the incoming emotion information with alternative interpretations (Sheppes & Gross, 2012), so it should be used less often in this context (see also Sheppes et al., 2014). Distraction is thought to be equally effective for low- and high-intensity situations (Sheppes & Gross, 2012), which may explain the lack of association between event intensity and distraction. Suppression should become harder at higher event intensity but the need to hide emotions may rise too as it is generally inappropriate to freely express emotions at work. By deactivating emotion acceptance, intense events diminished daily job satisfaction. Even though intense events diminished reappraisal, and reappraisal generally tends to benefit well-being (Aldao et al., 2010; Webb et al., 2012), reappraisal was not significantly associated with well-being in the present study, which accounted for event characteristics. This finding fits well with the contextual perspective on emotion regulation, implying that strategies’ effectiveness varies across contexts (Aldao, 2013). In particular, reappraisal is thought to lose effectiveness as event intensity increases (Sheppes & Gross, 2012).

The second contextual factor, controllability of events, had little impact on strategy use; the only association was with higher suppression use and indirectly through higher suppression use with increased fatigue. Control is an important variable in organizational research, and several authors have hinted at the role of controllability for choosing between emotion- and problem-focused coping (Elfering et al., 2005). Yet, to our knowledge, situational variation in controllability has not previously been linked to the spontaneous use of the four strategies in daily work life. The finding that controllability predicted higher use of suppression is consistent with the idea that, in controllable situations, suppression is rather instrumentally motivated than hedonically (English et al., 2017): it can help keep the focus on the work task rather than bringing emotions into focus. This reasoning would also be consistent with our finding that event controllability did not negatively predict job satisfaction through suppression: If suppression is functional in controllable circumstances, there should be no costs for satisfaction (although using suppression does seem to cost effort as shown by increased levels of fatigue).

We further found that in response to interpersonal events (interactions with customers, supervisors, and coworkers), employees reported using more suppression, more reappraisal, and less acceptance than in response to other types of events (e.g., technical issues, workload issues, or private problems). The increased use of suppression is consistent with some earlier work (Diefendorff et al., 2008; English et al., 2017) and suggests that people do not feel comfortable expressing their emotions in the presence of others at work, so they would revert to disengagement strategies. The indirect effect of interpersonal events on daily fatigue further suggests that through suppression, negative interpersonal events drain regulatory resources. This finding fits well with the literature demonstrating the costs of emotional labor, especially if surface acting (a strategy that overlaps with suppression) is used to fulfill display demands in workplace interactions (Hülsheger & Schewe, 2011). At the same time, the increased use of reappraisal suggests that some engagement strategies are activated in response to interpersonal conflicts too, however without clear well-being consequences. A possible explanation is that social situations lend themselves better for reappraisal than nonsocial situations as interaction partners bring a larger complexity to the situation (e.g.
they have motives, intentions, and goals that are not immediately visible). Reappraisal affordances—that is, opportunities for semantic reinterpretation of the situation (Suri et al., 2018)—are likely enhanced when situations are social in nature. In contrast to the increased use of reappraisal, acceptance (another engagement strategy), appears to be used more in response to noninterpersonal events. In noninterpersonal situations, which presumably lend themselves less to reinterpretation, acceptance is still a viable option and may thus be used more. 

Regarding age differences, we did not confirm the hypothesis of a stronger tailoring of strategies to contextual factors at higher age. In fact, the two-age-contingent event effects that we identified suggested a weaker relationship between emotion intensity and use of suppression and acceptance. When younger workers faced high-intensity events, when compared with low-intensity events, they showed stronger tendencies to hide their emotions and were less accepting of their negative emotions. Both these tendencies suggest ineffective ways to manage emotions. In contrast, when older workers faced high-intensity events, they maintained levels of both suppression and acceptance. The moderating effect of age was also visible in daily well-being: For younger workers, event intensity predicted reduced job satisfaction through reduced acceptance and higher fatigue through increased suppression. Older workers’ job satisfaction and well-being, in contrast, were unaffected by event intensity. No age-contingent effects of the other two context factors (controllability, interpersonal nature) were found.

All in all, we could confirm that the intensity of work events, the interpersonal nature, and, to a small extent, their controllability modulated the use of suppression, acceptance, and reappraisal but not distraction. Furthermore, we showed that younger workers had less adaptive ways of reacting to emotionally intense work events than older workers. These maladaptive ways to react to negative work events were reflected in decreased daily job satisfaction and increased fatigue.

Theoretical Implications

Life-span theories suggest changes in emotion regulation with age, including shifts in strategy selection (Scheibe & Zacher, 2013). Given both, the impact of affective work events and developmental changes in regulating emotions, it is important for organizations to understand how younger and older workers respond to affective work events. Yet, because previous research has largely been restricted to habitual strategy use (e.g., Dahling & Perez, 2010; Peng et al., 2017), we still lack a thorough understanding of how age and daily experiences at work interact in determining emotion-regulation strategy use and the associated well-being consequences. The present study showed that the nature of events matters for emotion-regulation strategies and daily well-being. The study further showed that young and older workers partly differed in their emotion-regulatory responses to variations in the intensity of daily negative events.

Three conclusions can be drawn from the pattern of results. First, it appears that workers of all ages adjust strategy use to the characteristics of daily negative work events, suggesting the importance of people’s everyday work experiences in selecting emotion-regulation strategies. Situational context factors therefore deserve more attention in theories and research on work-related emotion regulation (see also Diefendorff et al., 2019). Second, results do not support a higher context-sensitivity with age, but rather suggest a small trend toward higher stability of strategy use. Toomey and Rudolph (2017) similarly found that older workers’ use of deep and surface acting is more consistent across interpersonal encounters at work that vary in intensity. Relatedly, Eldesouky and English (2018) found that middle-aged and older adults are more stable in their use of emotion-regulation strategies across different days than younger adults. This latter study did not assess context; thus, our findings help to rule out that a higher stability of strategy use with age is merely due to age differences in (work) context. Third, age partially shapes the way in which variations in the intensity of daily negative work events affect daily well-being. By minimizing the use of resource-depleting strategies such as suppression even in intense work situations where this would be an obvious option, and by continuing to use job satisfaction-enhancing strategies such as acceptance even in emotionally charged situations in which it is harder to implement, older workers may be more consistent in their emotion regulation pattern across situations. Overall, then, life-span changes in emotion regulation competence and motivation may be visible in higher stability of strategy use rather than higher covariation with event characteristics. In fact, this parallels findings of higher stability of negative affect in some (though not all) studies on workers (Scheibe, Yeung, & Doerwald, 2019).

Practical Implications

Emotion regulation is unavoidable in work settings, and it is in organizations’ interest to support their employees to use “healthy” emotion-regulation strategies rather than “unhealthy” ones. Our findings add to earlier work showing that strategies have differential well-being benefits and costs for employees, which are apparent at the daily level. The finding that interpersonal stressors lead employees to use more suppression (a resource-depleting strategy) and less acceptance (a strategy that enhances job satisfaction) suggests that it may be beneficial to create opportunities for time alone. This has implications for designing work spaces or break rooms and suggests negative side effects of large open office spaces. The finding that intensely experienced work events lead employees to use less reappraisal and acceptance (both strategies with well-being advantages) suggests that such events have not only direct effects on negative work outcomes but also indirect effects via changes in strategy use. As negative work events arise from poor working conditions, work design interventions seem useful to channel employees into healthier profiles of emotion-regulation strategies. At the same time, age effects suggest that high event intensity is less problematic for older workers than it is for younger workers: they increase less in suppression and decrease less in acceptance. Whether this is due to life experience or motivational changes, practitioners should take notice of yet another sign of an older-age advantage when it comes to navigating stressful daily experiences at work, and they can use this insight when recruiting, placing, and retaining older workers.

Limitations and Future Directions

Some limitations should be noted. First, affective work events and emotion-regulation strategies were assessed retrospectively at the end of the workday. Participants therefore had to aggregate their experiences over the past several hours, which could have led to memory biases. It is possible that individuals differed in their threshold to evaluate a work event as worth reporting or that they did not report events that were resolved during the day. Nevertheless, the daily assessment is advantageous to one-time assessments of events, regulation
strategies, and well-being outcomes, as it helps to rule out that more general identity-related beliefs (for instance, whether people believe they are good regulators or have stressful lives) have a strong impact on ratings (Robinson & Clore, 2002).

Second, the fact that we measured predictors and outcome variables at the same time implies that we cannot draw causal conclusions about the links between context, strategy use, and well-being. It should be noted, however, that all our hypotheses are rooted in experimental work in which situational context was manipulated to examine (age differences in) strategy selection (e.g., Scheibe et al., 2015; Suri et al., 2018) or in which participants were instructed to use particular emotion-regulation strategies to examine their well-being consequences (e.g., Campbell-Sills et al., 2006; Sheppes & Meiran, 2008). Therefore, the purpose of the present study was not so much to establish causal links, but rather to show that consistent patterns of findings emerge when studying emotion regulation in everyday work life, thereby providing external validity. Nevertheless, it would be useful in future studies to separate measurements in time and examine lagged effects between context, strategy use, and well-being as employees undergo their daily work activities.

Third, we focused on four common regulation strategies, but there are many other strategies worth investigating. Although we went beyond many prior organizational studies by including strategies that represent the different combinations of antecedent-focused versus response-focused strategies and engagement versus disengagement strategies, all four strategies in our study represent emotion-focused strategies in the coping literature. Thus, we did not assess more problem-focused strategies (Lazarus & Folkman, 1987). These latter strategies are assumed to be the most adaptive when daily events are controllable, but few studies have tested this assumption (see Elfering et al., 2005 for an exception). We also did not include early antecedent-focused strategies such as those used proactively to prevent the occurrence of affective events. Therefore, an important next step is to examine whether age differences in strategies such as situation selection help explain positive individual and organizational outcomes at higher worker age. Similarly, comparing strategy use both in the presence and in the absence of negative work events would help to better understand age differences. It is possible that younger workers use costly strategies such as distraction more often than older workers, even in response to small mood fluctuations that we would not capture by asking about work events at the end of the day. The negative correlation between age and distraction that we found speaks to this possibility.

Apart from assessing emotion regulation in the presence and absence of negative events, a fruitful future direction is to more directly measure the motives underlying emotion regulation. Whether people regulate for hedonic or instrumental reasons, in other words, whether their intention is to feel good or rather to get work done, learn, keep up appearance, or help others, will influence their decisions about strategy selection (English et al., 2017). Motivational changes with age, as postulated by socioemotional selectivity theory, presumably make hedonic motives more important at higher age, whereas several (though not all) instrumental motives lose importance (Carstensen, 2006). Studying motives underlying emotion regulation can help better understand why workers are inclined to use certain emotion-regulation strategies more than others in response to situational context characteristics.

CONCLUSION

Our findings highlight the role of context in driving daily emotion regulation at work. The intensity of work events, the interpersonal nature, and, to a small extent, their controllability emerged as triggers for three of the examined strategies (the exception being distraction). Interpersonal events evoked more suppression and less acceptance, but also more reappraisal, whereas intense events reduced the use of the engagement strategies, reappraisal and acceptance. Controllable events predicted higher use of suppression. We found few age differences in context effects on emotion regulation; these entailed that older workers adjusted strategy use less to event intensity than younger workers did. Rather than tailoring emotion-regulation strategies more to context, these findings suggest that older workers are somewhat more stable in their use of emotion-regulation strategies than younger workers. By being more stable in their strategy use as events become more emotionally intense, rather than deactivating acceptance (an effective engagement strategy) and activating suppression (a resource-depleting disengagement strategy), older workers may be better able to maintain well-being. A contextual approach to emotion regulation in the workplace thus offers a more refined understanding of aging and occupational well-being.

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REFERENCES


