University of Groningen

Dynamic effects of personal initiative on engagement and exhaustion

Zacher, Hannes; Schmitt, Antje; Jimmieson, N. L.; Rudolph, C.

Published in:
Journal of Organizational Behavior

DOI:
[10.1002/job.2277](https://doi.org/10.1002/job.2277)

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

Publication date:
2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Zacher, H., Schmitt, A., Jimmieson, N. L., & Rudolph, C. (2019). Dynamic effects of personal initiative on engagement and exhaustion: The role of mood, autonomy, and support. *Journal of Organizational Behavior*, 40(1), 38-58. <https://doi.org/10.1002/job.2277>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

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

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

SPECIAL ISSUE ARTICLE

Dynamic effects of personal initiative on engagement and exhaustion: The role of mood, autonomy, and support

Hannes Zacher¹ | Antje Schmitt² | Nerina L. Jimmieson³ | Cort W. Rudolph⁴

¹Institute of Psychology, Leipzig University, Leipzig, Germany

²Department of Psychology, University of Groningen, Groningen, The Netherlands

³School of Management, Queensland University of Technology, Brisbane, QLD, Australia

⁴Department of Psychology, Saint Louis University, St. Louis, Missouri, U.S.A.

Correspondence

Hannes Zacher, Institute of Psychology, Leipzig University, Neumarkt 9-19, 04109 Leipzig, Germany.
Email: hannes.zacher@uni-leipzig.de

Summary

Researchers have neglected dynamic effects of proactive behavior on occupational well-being. We investigated effects of change in personal initiative over 6 months on changes in emotional engagement and exhaustion over the following 6 months. On the basis of the control-process theory on affect, we hypothesized that changes in positive and negative moods mediate these effects conditional upon employees' level of perceived organizational support. On the basis of action regulation theory, we assumed that change in job autonomy also acts as a mediator. Data came from 297 employees who responded to 3 surveys separated by 6-month intervals. Results of latent change score modeling showed that change in personal initiative negatively predicted change in positive mood and, when perceived organizational support was low, positively predicted change in negative mood. In addition, change in personal initiative positively predicted change in job autonomy. Change in personal initiative had negative indirect effects on change in emotional engagement, and positive indirect effects on change in emotional exhaustion through changes in positive and negative moods (but not through change in job autonomy). A reverse causal model did not yield significant indirect effects. Overall, these findings suggest that an increase in proactive behavior can have detrimental effects on occupational well-being.

KEYWORDS

engagement, exhaustion, latent change score, personal initiative, proactivity

1 | INTRODUCTION

Proactive behavior involves employees' self-initiated and future-oriented efforts to change their work environment or themselves in positive ways (Bindl & Parker, 2011; Crant, 2000; Grant & Ashford, 2008; Parker & Collins, 2010). In the context of increasingly complex and uncertain workplaces and careers, research on proactive behavior and its consequences for employees and organizations has substantially grown over the past two decades (Griffin, Neal, & Parker, 2007; Parker & Bindl, 2017). For instance, two meta-analytic reviews showed that proactive behavior is positively related to job performance, even after controlling for the Big Five personality traits (Thomas, Whitman, & Viswesvaran, 2010; Tornau & Frese, 2013).

Although associations between proactive behavior and performance-related outcomes are now well established, organizational scholars have so far largely neglected potential effects of proactive behavior on occupational well-being outcomes (for two recent exceptions, see Fay & Hüttges, 2017; Strauss, Parker, & O'Shea, 2017). Furthermore, the potential mechanisms and boundary conditions of

effects of proactive behavior on occupational well-being outcomes have not received much research attention (Cangiano & Parker, 2016). Most previous studies have used cross-sectional between-person designs, and, therefore, our knowledge of how within-person change in proactive behavior impacts within-person change in occupational well-being is limited (see Eschleman & LaHuis, 2014). Bolino, Valcea, and Harvey (2010) argued that longitudinal studies on proactive behavior are needed, because proactive behavior might have negative consequences for employees' well-being over time (e.g., several months). The few existing longitudinal studies (i.e., with three or more measurement waves; Ployhart & Vandenberg, 2010) on proactive behavior did not examine indicators of occupational well-being as predictors or outcomes of proactive behavior (Fay & Sonnentag, 2002; Frese, Garst, & Fay, 2007; Griffin, Parker, & Mason, 2010; Li, Fay, Frese, Harms, & Gao, 2014). Moreover, previous studies have focused on the extent to which between-person differences in proactive behavior are associated with between-person differences in outcomes, and not on how within-person change in proactive behavior predicts subsequent within-person changes in outcomes. Whereas the former approach can lead to a better understanding of

how and why proactive employees differ from their less proactive colleagues, the latter approach allows firmer conclusions regarding causality, because it investigates how change in proactive behavior impacts changes in other variables, such as occupational well-being (see Hamaker, 2012; Molenaar, 2004; M. Wang et al., 2017).

In this study, we address the limitations of previous research by integrating affect-based, motivational, and resource-based perspectives on the consequences of proactive behavior (Cangiano, Bindl, & Parker, 2017; Cangiano & Parker, 2016; Frese et al., 2007). Specifically, we draw on propositions of the control-process theory on affect (Carver & Scheier, 1990) and action regulation theory (Frese & Zapf, 1994) to explain potential indirect effects of change in personal initiative over 6 months on changes in emotional engagement and emotional exhaustion over the following 6 months. *Personal initiative* is a broad form of proactive work behavior that is self-starting, future oriented, and overcomes barriers to achieve goals (Frese & Fay, 2001). For example, employees show high personal initiative when they seek opportunities to improve their work environment and are persistent in the face of barriers and setbacks that may occur while implementing changes (Frese, Fay, Hilburger, Leng, & Tag, 1997).

High emotional engagement and low emotional exhaustion are two important indicators of occupational well-being (Bakker, Albrecht, & Leiter, 2011) that have been shown to be associated with high performance, reduced turnover, and general well-being (Bakker & Bal, 2010; Hakanen & Schaufeli, 2012; Wright & Cropanzano, 1998). *Emotional engagement* involves the investment of affective energies into the work role (Kahn, 1990; Rich, LePine, & Crawford, 2010). Emotionally engaged employees are enthusiastic and energetic in their job (Bakker, Schaufeli, Leiter, & Taris, 2008). *Emotional exhaustion* is a key dimension of the job burnout construct and entails feelings of being emotionally depleted, fatigued, and overextended by one's work (Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001). Emotional engagement and emotional exhaustion are moderately to strongly negatively related, but distinct concepts (Bakker et al., 2011; Cole, Walter, Bedeian, & O'Boyle, 2012). By including these two outcomes, we adopt a balanced approach that focuses on both positive and negative aspects of occupational well-being (Hakanen, Bakker, & Schaufeli, 2006).

To advance research on the well-being consequences of proactive behavior, Cangiano and Parker (2016) proposed that proactive behavior can influence occupational well-being outcomes via a resource

generation pathway and a resource-depletion pathway, and that the strength of these effects depends on contextual (e.g., support) and individual (e.g., intrinsic motivation) factors (see also Cangiano, 2017). Research based on the job demands–resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) similarly suggests a motivational process that results in work engagement and well-being, and an energetical process that leads to burnout and ill health (Hakanen et al., 2006). Furthermore, Cangiano et al. (2017) suggested that proactive behavior is not only influenced by affective experiences (e.g., Bindl, Parker, Totterdell, & Hagger-Johnson, 2012) but that proactive behavior also can have important consequences for affective experiences. Consistent with Cangiano and Parker's research, we hypothesize that change in personal initiative has indirect effects on subsequent changes in emotional engagement and exhaustion. Specifically, we expect that these effects are mediated by changes in positive and negative moods and job autonomy, and that the effects of change in personal initiative on changes in positive and negative moods are moderated by perceived organizational support (POS).

Our conceptual model is shown in Figure 1. We do not hypothesize overall positive or negative effects of change in personal initiative on changes in emotional engagement and exhaustion. The reason for this is that the different positive and negative indirect pathways are likely to cancel each other out and lead to weak overall effects of change in personal initiative on changes in occupational well-being (Cangiano & Parker, 2016). However, we outline boundary conditions under which the positive indirect pathway might outweigh the negative indirect pathway or vice versa, such that a change in personal initiative has positive or negative overall effects on changes in occupational well-being outcomes.

Positive and negative moods, two of the mediators in our model, entail relatively enduring experiences of pleasant (e.g., excited) and unpleasant (e.g., distressed) affective states, respectively (Warr, Barter, & Brownbridge, 1983; Watson, Clark, & Tellegen, 1988). Although emotions are short lived and intense reactions to specific events, moods typically have a longer duration (e.g., several days, weeks, or months), are less intense, and are more generalized in focus (Barsade & Gibson, 2007; Brief & Weiss, 2002). Moods further have to be distinguished from even more stable interindividual differences in trait affectivity, or the dispositional tendency to experience positive or negative emotions (Barsade & Gibson, 2007; Cangiano et al., 2017).

FIGURE 1 Conceptual model. Δ = change in; T = time. Dashed lines indicate conditional (i.e., moderator) effects

The moderator in our model, POS, involves the extent to which employees believe that “the organization values their contributions and cares about their well-being” (Eisenberger, Huntington, Hutchinson, & Sowa, 1986, p. 105). According to organizational support theory (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002), POS is an important psychological resource of employees. For instance, POS has been shown to satisfy employee needs for emotional support, positive self-esteem, and affiliation (Lee & Peccei, 2007).

On the basis of the control-process theory on affect (Carver & Scheier, 1990), and consistent with the theorizing of Cangiano et al. (2017) and Cangiano and Parker (2016), we expect that when POS is high, change in personal initiative positively predicts change in positive mood and negatively predicts change in negative mood. In contrast, when POS is low, change in personal initiative should negatively predict change in positive mood and positively predict change in negative mood. Furthermore, consistent with research that has challenged the common assumption of affect symmetries (i.e., positive events/moods predict positive outcomes, and negative events/moods predict negative outcomes; Bono, Glomb, Shen, Kim, & Koch, 2013; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003), we expect that change in positive mood is positively related to change in emotional engagement and negatively related to change in emotional exhaustion. In contrast, we expect change in negative mood to be negatively related to change in engagement and positively related to change in exhaustion.

In addition to changes in mood, on the basis of action regulation theory (Frese & Zapf, 1994), we propose that change in personal initiative has indirect effects on changes in emotional engagement and exhaustion via change in job autonomy. *Job autonomy* is a core motivational job characteristic that describes the extent to which employees have latitude over important decisions at work (Hackman & Oldham, 1976; Morgeson & Humphrey, 2006). Research based on action regulation theory has demonstrated that showing personal initiative leads to greater job autonomy (Frese et al., 2007). Job autonomy, in turn, has beneficial effects on occupational well-being (Terry & Jimmieson, 1999). We do not expect that POS moderates the indirect effects of change in personal initiative on changes in emotional engagement and exhaustion via change in job autonomy, because proactive employees are likely to make changes to their job characteristics independent of their level of POS (Frese et al., 2007; Li et al., 2014).

We extend previous research on between- and within-person variability in proactive behavior (e.g., Fay & Sonnentag, 2012) by investigating the dynamic effects of within-person *change* in personal initiative over a period of 6 months on *changes* in positive and negative moods, job autonomy, and emotional engagement and exhaustion over the following 6 months. We investigate changes in our focal constructs across a time span of 6 months because previous longitudinal research (e.g., Fay & Sonnentag, 2002; Garst, Frese, & Molenaar, 2000; Griffin et al., 2010) and theorizing on the role of time in the work context (Dormann & Griffin, 2015; Sonnentag, 2012) suggest that it can take several months for meaningful within-person changes in personal initiative, job autonomy, and occupational well-being outcomes to take place. Moreover, a time span of 6 months is consistent with our focus on positive

and negative moods as more enduring yet, in the longer term, dynamic affective experiences (Billings, Folkman, Acree, & Moskowitz, 2000; Charles, Reynolds, & Gatz, 2001). In this regard, Cangiano et al. (2017) suggested that “... multi-wave longitudinal studies featuring weekly or monthly measurements would be appropriate for the study of dispositional affective tendencies and more stable moods in relation to proactivity” (p. 373). This longer time frame also extends previous research on the well-being consequences of proactive behavior, which has used a daily diary approach (Fay & Hüttges, 2017) and a 2-week time lag (Strauss et al., 2017).

Examining within-person effects of change in one variable on changes in other variables (i.e., “change-to-change” effects) allows stronger conclusions regarding causality in comparison with studies that focus on between-person differences, including studies that investigate associations between between-person differences in one variable and within-person changes in other variables (i.e., “level-to-change” effects; Selig & Preacher, 2009; M. Wang et al., 2017). We analyze three-wave longitudinal data collected over 12 months using latent change score modeling, which involves conducting multilevel and longitudinal analyses within a structural equation modeling framework (Liu, Mo, Song, & Wang, 2016). Advantages of this approach over more traditional multilevel and longitudinal methods are that it explicitly parameterizes change in key variables using latent change scores, allows testing reverse causal models, models both within- and between-person variance, corrects for unreliability in the variables, and handles missing data well (McArdle, 2009).

1.1 | Relationships between proactive behavior and occupational well-being outcomes

Proactive employees anticipate future job and career demands and create necessary changes in the work environment and within themselves to better meet personal and organizational goals (Bindl & Parker, 2011; Frese & Fay, 2001; Parker, Bindl, & Strauss, 2010). The positive effects of proactive behaviors, such as personal initiative, on job performance and career success are well established (Glaser, Stam, & Takeuchi, 2016; Seibert, Kraimer, & Crant, 2001; Tornau & Frese, 2013). However, organizational scholars have argued that proactive behavior may have an unintended “dark side,” particularly in terms of detrimental effects on occupational well-being outcomes (Belschak, Hartog, & Fay, 2010; Bolino, Turnley, & Anderson, 2017). For instance, drawing on the key assumption of conservation of resources theory (Hobfoll, 1989) that resource losses reduce well-being, Bolino et al. (2010) suggested that proactive behavior can be a potential source of job strain, as it may lead to energy depletion, conflicts, and frustration.

Research that focused on potential negative well-being consequences of proactive behavior has yielded mixed results. Bolino and Turnley (2005) investigated “individual initiative” as a form of organizational citizenship behavior. In contrast to personal initiative, individual initiative involves working compulsively above and beyond expectations to complete work tasks. In a cross-sectional study, these researchers found that higher partner-rated individual initiative was related to higher self-rated role overload, job stress, and work–family

conflict. In contrast, another cross-sectional study reported a positive relationship of personal initiative with occupational well-being, and a negative relationship with emotional exhaustion (H. Wang & Li, 2015). Similarly, a meta-analysis of cross-sectional studies found that proactive personality is negatively related to burnout (Alarcon, Eschleman, & Bowling, 2009).

Fay and Hüttges (2017) argued that daily personal initiative is positively related to daily fatigue and cortisol output because individuals' resources at work (e.g., time and energy) are limited and they need to invest additional effort to maintain task performance and show initiative. In addition, Fay and Hüttges suggested that proactive behavior can cause feelings of uncertainty and conflict among colleagues, because it deviates from behavioral norms and may impact on others' jobs. They further proposed that work overload and negative affect mediate the links between daily personal initiative and well-being outcomes. To test their hypotheses, Fay and Hüttges conducted a daily diary study with 72 employees across three workdays. Results showed that daily personal initiative was positively related to daily cortisol output. In contrast, the association between daily personal initiative and fatigue in the evening did not meet conventional levels of significance ($p = .059$), and work overload and negative affect did not emerge as mediators.

Advancing theory on the well-being consequences of proactive behavior, Cangiano and Parker (2016) argued that "... proactivity is likely to affect mental health and well-being in multiple ways, and that moderating variables and mediating processes need to be considered" (p. 229). They developed a conceptual model according to which proactive behavior may influence occupational well-being via two pathways. First, on the basis of the self-determination theory (Gagné & Deci, 2005; Ryan & Deci, 2000), Cangiano and Parker suggested that proactive behavior leads to needs satisfaction, positive mood, and, in turn, well-being via a resource-generation pathway (see also Strauss & Parker, 2014). Second, drawing on conservation of resources theory (Hobfoll, 1989) and the strength model of self-regulation (Baumeister, Bratslavsky, Muraven, & Tice, 1998), Cangiano and Parker proposed that proactive behavior may generate negative affect and job strain via a resource-depletion pathway (see also Bolino et al., 2017). They further proposed that these indirect effects of proactive behavior on occupational well-being are conditional upon contextual (e.g., support) and individual (e.g., motivation) factors. Specifically, proactive employees should be more likely to follow the resource-generation pathway toward well-being when they feel supported and are intrinsically motivated to engage in proactive behavior, whereas they are more likely to follow the resource-depletion pathway toward job strain when they do not feel supported and are extrinsically motivated (Cangiano & Parker, 2016).

Consistent with Cangiano and Parker's (2016) model, Strauss et al. (2017) examined employee motivations as moderators of the association between proactive behavior and job strain. They hypothesized that when employees experience pressure and coercion at work (i.e., high controlled motivation), and this cannot be compensated by high levels of autonomous motivation, proactive behavior is likely to lead to job strain due to resource depletion. Strauss and colleagues used a two-wave survey study across 2 weeks with 127 employee-supervisor dyads to test their three-way interaction hypothesis.

Consistent with expectations, they found that supervisor ratings of employee proactive behavior were positively associated with employee job strain when controlled motivation was high and, at the same time, autonomous motivations was low. Under all other conditions, proactive behavior was unrelated to job strain.

In the current study, we extend previous research on proactive behavior and occupational well-being by focusing on both positive (i.e., engagement) and negative (i.e., exhaustion) well-being outcomes, by examining effects of change in personal initiative using a "true" longitudinal design with three measurement waves (see Ployhart & Vandenberg, 2010), and by examining multiple mediators and a moderator. Consistent with Cangiano and Parker's (2016) theorizing on multiple mechanisms and boundary conditions of the effects of proactive behavior on well-being outcomes, we do not hypothesize overall effects of change in personal initiative on changes in emotional engagement and exhaustion. The reason for this is that the various positive and negative indirect pathways are likely to cancel each other out and lead to weak overall effects of change in personal initiative on changes in emotional engagement and exhaustion. Instead, we focus our hypotheses on the indirect effects of change in personal initiative on changes in well-being outcomes, mediated by changes in positive and negative moods and job autonomy.

1.2 | The mediating role of changes in positive and negative moods and the moderating role of perceived organizational support

The dual-pathway model of proactivity and well-being (Cangiano & Parker, 2016) suggests that proactive behavior may lead to both positive mood (i.e., resource-generation pathway) and negative mood (i.e., resource-depletion pathway; see also Cangiano et al., 2017). Importantly, the dual-pathway model further posits that the strength of these effects depends on contextual and person-related moderators, such as perceived support (Cangiano & Parker, 2016). We draw on Carver and Scheier's (1990) control-process theory on affect to explain our hypotheses on the effects of change in personal initiative on subsequent changes in positive and negative moods, moderated by POS (see Figure 1). This theory provides a useful framework for our study, because it focuses on the self-regulation of behavior, internal and external facilitators and constraints of the self-regulation process, and the emergence of affective experiences. Scholars have argued that proactive behaviors can be conceived as a self-regulation process (Bindl et al., 2012). Furthermore, the control-process theory on affect is useful for the purposes of our study because it is flexible with regard to the time frames over which self-regulation of behavior and affective experiences are conceptualized: "The time period across which information is merged may be brief or it may be quite long" (Carver & Scheier, 1990, p. 26). Thus, although Carver and Scheier (1990) do not specifically recommend a time lag of 6 months, the quote from their paper suggests that 6 months is a possible time frame across which changes in personal initiative, mood, and well-being can be meaningfully investigated.

The control-process theory on affect (Carver & Scheier, 1990) extends control theory, which suggests that people monitor their behavior and possibly change it to reduce discrepancies between their

goals and the current state (Carver & Scheier, 1982). Thus, this primary feedback system focuses on action control. To explain the emergence of positive and negative affective experiences, Carver and Scheier (1990) introduced a secondary, higher order feedback system ("meta-monitoring") that senses and evaluates discrepancies between expected and actual rates of progress in the first feedback system. The second system compares the rate of discrepancy reduction in the action control system with an acceptable or desired reference value for progress. The outcome of this comparison by the second system leads to changes in affective experiences. When people face beneficial (internal or external) conditions and perceive that they are making good progress in attaining their goals, positive affect increases and negative affect decreases. In contrast, when people face constraints and perceive that they are not making sufficient progress, negative affect increases and positive affect decreases (Carver & Scheier, 1990).

On the basis of the control-process theory on affect, we argue that, when POS is high, change in personal initiative has a positive effect on change in positive mood and a negative effect on change in negative mood. Employees who show an increase in personal initiative and, at the same time, perceive that their organization supports them and values their contributions at work should be more likely to perceive that they are meeting or exceeding their expectations regarding progress in proactive goal attainment. This favorable subjective evaluation of progress, in turn, should result in subsequent improvements in positive mood and reductions in negative mood. In contrast, we propose that, when POS is low, change in personal initiative has a negative effect on change in positive mood and a positive effect on change in negative mood. Employees who show an increase in personal initiative, but perceive that their organization does not support them and value their contributions in the work context, should perceive that they are not meeting their expectations regarding progress in proactive goal attainment. This subjective evaluation of progress should, therefore, result in increases in negative mood and decreases in positive mood.

According to this theorizing, on the basis of the control-process theory on affect (Carver & Scheier, 1990) and organizational support theory (Eisenberger et al., 1986), POS is a psychological resource that can strengthen the resource-generating effect (i.e., increase in positive mood and decrease in negative mood) and mitigate the resource-depleting effect (i.e., increase in negative mood and decrease in positive mood) of proactive behavior (Cangiano & Parker, 2016). Indeed, in their model of proactive motivation, Parker et al. (2010) argued that feeling supported at work is likely to facilitate the process of proactive goal striving. Consistently, Cangiano et al. (2017) proposed that "positive organizational climate and supervisory support are likely to minimize the occurrence of negative affective experiences as a result of proactive behaviors. Employees who are well-supported by managers and colleagues are less likely to experience unpleasant consequences for their proactive behavior" (p. 370). Although POS is distinct from perceived supervisor and coworker support, the constructs are positively related (Eisenberger, Stinglhamer, Vandenberghe, Sucharski, & Rhoades, 2002; Ng & Sorensen, 2008). Providing further support for our theoretical assumptions, Janssen (2004) found that innovative behavior (an active form of behavior that is positively related to personal initiative; Potočník & Anderson, 2016) was associated with greater anxiety and exhaustion

when employees' perceptions of organizational fairness were low. In sum, we propose that POS moderates the effects of change in personal initiative on changes in positive and negative moods, respectively (see Figure 1). We investigate changes in positive and negative moods *after* change in personal initiative has taken place, because employees first need to perceive and evaluate changes in their behavior (i.e., meta-monitoring; Carver & Scheier, 1990) as well as their level of POS before changes in mood can begin to unfold.

Hypothesis 1. POS moderates the effect of change in personal initiative on change in positive mood, such that the effect is positive when POS is high and negative when POS is low.

Hypothesis 2. POS moderates the effect of change in personal initiative on change in negative mood, such that the effect is negative when POS is high and positive when POS is low.

We further assume that changes in positive and negative moods are associated with changes in emotional engagement and exhaustion (see Figure 1). Specifically, change in positive mood should be positively related to change in emotional engagement and negatively related to change in emotional exhaustion, whereas change in negative mood should be negatively related to change in engagement and positively related to change in exhaustion. Broaden-and-build theory (Fredrickson, 2001) suggests that the experience of positive mood increases personal resources and promotes human flourishing and well-being, whereas negative mood leads to a narrow focus on stressors and survival responses. Similarly, conservation of resources theory (Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018) suggests that positive mood is a personal resource that increases individuals' capacity to generate further resources (i.e., well-being), whereas negative mood indicates a lack of resources and leads to losses in well-being.

Our assumptions are consistent with theorizing by Carver and Scheier (1990) on the effects of affective experiences on subsequent information processing. Specifically, they argued that positive mood increases the accessibility and salience of positively valenced information, whereas negative mood increases the accessibility and salience of negatively valenced information. Similarly, organizational researchers have argued that positive and negative moods may influence emotional engagement and exhaustion through changes in the perceived and objective work environment (Connolly & Viswesvaran, 2000). Specifically, Connolly and Viswesvaran (2000) argued that employees experiencing high positive mood are likely to view their work environment as pleasant, whereas employees experiencing high negative mood should view their work environment as unpleasant and stressful. In addition, employees with high positive and low negative mood are more likely to experience pleasant interpersonal situations and obtain more favorable work outcomes, which, in turn, should increase their engagement and decrease their exhaustion (Spector, Jex, & Chen, 1995). Consistent with these assumptions, research has shown that both positive and negative moods predict work engagement (Bledow, Schmitt, Frese, & Kühnel, 2011) and emotional exhaustion (Alarcon et al., 2009).

Importantly, organizational scholars have challenged the common assumption of affect symmetries, according to which positive mood only predicts positive outcomes, and negative mood only predicts negative outcomes (Bono et al., 2013; Thoresen et al., 2003). For instance, Thoresen et al. (2003) showed that both positive and negative moods contribute equally to positive job attitudes and well-being outcomes, such as job satisfaction. Bono et al. (2013) found that both positive and negative events contribute to perceived stress, blood pressure, physical symptoms, and mental health. Consistent with this research and theorizing on affect (Warr et al., 1983; Watson et al., 1988), we do not simply conceptualize positive and negative moods, as well as emotional engagement and exhaustion, as opposites of each other. Although moderately to strongly negatively related (Cole et al., 2012; Watson et al., 1988), these constructs capture distinct dimensions of affective experience and occupational well-being, respectively. However, we argue that the underlying theoretical mechanisms that link changes in positive and negative moods to changes in occupational well-being outcomes are similar. It may be possible that changes in positive and negative moods have the strongest effects on changes in emotional engagement and exhaustion, respectively (i.e., symmetrical effects). However, asymmetrical effects are also plausible (e.g., via resource gains and losses; Bono et al., 2013; Thoresen et al., 2003), such that change in positive mood is negatively associated with change in emotional exhaustion, and change in negative mood is negatively associated with change in emotional engagement.

Overall, this theorizing on relationships between changes in positive and negative moods and changes in emotional engagement and exhaustion, in combination with our arguments for Hypotheses 1 and 2, leads us to the following hypotheses (see Figure 1).

Hypothesis 3. POS moderates the indirect effects of change in personal initiative on (a) change in emotional engagement and (b) change in emotional exhaustion through change in positive mood. Specifically, the indirect effect on change in emotional engagement is positive when POS is high and negative when POS is low, and the indirect effect on change in emotional exhaustion is negative when POS is high and positive when POS is low.

Hypothesis 4. POS moderates the indirect effects of change in personal initiative on (a) change in emotional engagement and (b) change in emotional exhaustion through change in negative mood. Specifically, the indirect effect on change in emotional engagement is positive when POS is high and negative when POS is low, and the indirect effect on change in emotional exhaustion is negative when POS is high and positive when POS is low.

1.3 | The mediating role of change in job autonomy

In addition to changes in positive and negative moods, we expect that change in personal initiative has indirect effects on changes in emotional engagement and exhaustion through change in job autonomy (see Figure 1). According to action regulation theory (Frese & Zapf, 1994; Zacher & Frese, 2018), the work environment not only

influences the extent to which employees engage in proactive behavior, but proactive behavior also can change characteristics of the work environment, such as tasks, demands, and social relationships (Frese et al., 2007; Li et al., 2014). This theory suggests that showing personal initiative should lead to an increase in action regulation opportunities in a job, for instance, through the addition of new responsibilities and challenging projects (Frese et al., 2007). Indeed, in a longitudinal study over 4 years, Frese et al. (2007) showed that job complexity and job autonomy predicted personal initiative and, in turn, personal initiative predicted higher levels in these job characteristics.

Regarding the effect of job autonomy on occupational well-being, research based on the job demands–resources model (Demerouti et al., 2001) has shown that job autonomy is positively related to work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Crawford, LePine, & Rich, 2010; Mauno, Kinnunen, & Ruokolainen, 2007). In addition, job autonomy is negatively related to emotional exhaustion (Fernet, Austin, Trépanier, & Dussault, 2013; Maslach et al., 2001). In sum, on the basis of action regulation theory, we propose that change in personal initiative has a positive effect on subsequent change in job autonomy. We further hypothesize that change in job autonomy is positively related to change in emotional engagement and negatively related to change in emotional exhaustion. We do not expect POS to moderate these effects, because proactive employees are likely to alter their work environment and affect change in job autonomy independent of POS and other contextual factors (Li et al., 2014).

Hypothesis 5. Change in personal initiative has a positive effect on change in job autonomy.

Hypothesis 6. Change in personal initiative has (a) a positive indirect effect on change in emotional engagement through change in job autonomy and (b) a negative indirect effect on change in emotional exhaustion through change in job autonomy.

2 | METHOD

2.1 | Participants and procedure

Data for this study came from 297 full-time employees in Australia, including 177 men (59.6%) and 120 women (40.4%). Their average age (at Time 1 [T1]) was 50.30 years ($SD = 11.73$), and ages ranged from 24 to 83 years. With regard to their highest level of educational attainment, two participants had not completed high school (0.7%), 80 (26.9%) had completed high school, 89 (30.0%) held a technical college degree, 78 (26.3%) held an undergraduate university degree, and 48 (16.2%) held a postgraduate university degree. On average (at T1), participants had worked in their current job for 11.56 years ($SD = 10.95$). Participants came from all Australian states and territories and worked in a broad range of jobs, occupations, and industries (e.g., agriculture, education, finance, health, manufacturing, retail, security, and transport).

The current data were collected as part of a larger data collection effort. One study based on the same data, but with a completely different research question and no overlapping variables, has been published

(Zacher & Rudolph, 2017). An Australian panel management and online research company was commissioned to recruit participants. This company owns and manages the largest research-only consumer and business panels in Australia and operates in accordance with the global International Organization for Standardization 20252 and 26362 standards for market, opinion, and social research. The company recruits individuals for its pool of potential participants initially offline (i.e., via telephone, mail, or in person) and on an invitation-only basis to avoid participation of professional online survey respondents. At the beginning of our study, 17,680 email invitations were sent to potential participants in the company's database (including bounce backs, emails unopened, and incompletes, as well as people who did not fulfill the participation requirements because they were retired or unemployed). At T1, 2,713 people clicked on the survey link during the data collection period. Of these, 1,063 persons did not proceed past the information sheet and informed consent form, whereas 1,650 persons did proceed and provided basic demographic information. Of these 1,650 persons, 653 indicated that they were currently unemployed, retired, or working part-time and were excluded from participation. After completing basic demographic information, 997 persons started answering the survey, and 921 participants provided complete data on the focal variables.

T1 participants were recontacted by the company 6 months later and invited to participate in a follow-up survey. In total, 575 persons clicked on the survey link at Time 2 (T2), 536 persons provided preliminary demographic information, 491 persons started the survey following the demographic questions, and 479 persons completed the survey. Independent-samples *t* tests were used to compare T1 participants who also participated at T2 with T1 participants who did not participate at T2 on the T1 variables. These dropout analyses showed no significant differences between the two groups in the T1 variables.

T2 participants were recontacted by the company 6 months after T1 and invited to participate in a second follow-up survey. In total, 344 persons clicked on the survey link at Time 3 (T3), 322 persons provided preliminary demographic information, 300 persons started the survey following the demographic questions, and 297 persons completed the survey. Independent-samples *t* tests were used to compare T1 participants who also participated at T3 with T1 participants who did not participate at T3 on the T1 variables. There were no significant differences between the two groups on the T1 variables.

2.2 | Measures

Unless indicated otherwise, all scales were answered on 7-point scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Except for the positive and negative mood scales, participants were asked how strongly they agree or disagree in general with the statements (i.e., no explicit time referent was used). Cronbach's α s were .88 or higher (see Table 1).

2.2.1 | Personal initiative

Personal initiative was assessed using seven items developed and validated by Frese and colleagues (Frese et al., 1997; Frese, Kring, Soose, & Zempel, 1996). Two example items are "I actively attack problems at work" and "Whenever there is a chance to get actively involved at work, I take it."

2.2.2 | Positive and negative moods

We measured positive and negative moods with five items each from reliable and validated short forms of the Positive and Negative Affect Schedule scales (Mackinnon et al., 1999). Participants were asked to indicate how inspired, alert, excited, enthusiastic, and determined (positive mood), as well as afraid, upset, nervous, scared, and distressed (negative mood) they generally felt over the past weeks (7-point scales ranging from 1 [*very slightly or not at all*] to 7 [*extremely*]).

2.2.3 | Job autonomy

Job autonomy was assessed using three decision-making autonomy items from Morgeson and Humphrey's (2006) work design questionnaire. An example item is "My job provides me with significant autonomy in making decisions."

2.2.4 | Perceived organizational support

We measured POS at T2 with the six highest loading items from the short form of Eisenberger et al.'s (1986) scale (Rhoades, Eisenberger, & Armeli, 2001). An example item is "My company strongly considers my goals and values." Researchers have suggested that the use of a short POS scale is appropriate as the original scale is unidimensional and highly reliable (Rhoades & Eisenberger, 2002).

2.2.5 | Emotional engagement

Emotional engagement was measured with the three highest loading items from Rich et al.'s (2010) emotional engagement scale. An example item is "I feel energetic at my job."

2.2.6 | Emotional exhaustion

We assessed emotional exhaustion with the four highest loading items from the emotional exhaustion scale of the burnout inventory (Maslach & Jackson, 1981). An example item is "I feel emotionally drained from my work."

2.3 | Analytical approach

In a first step, we conducted confirmatory factor and measurement equivalence analyses using the "lavaan" package for the R statistical computing environment to test the measurement model (R Core Team, 2016; Rosseel, 2012). All scale items were used as indicators of their respective construct. To account for observed deviations from normality, a robust maximum likelihood estimator was used (Foldnes & Olsson, 2015). To evaluate model fit, we used the comparative fit index (CFI), Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Reasonable model fit was assumed for CFI and TLI values greater than 0.90, RMSEA values close to 0.06, and SRMR values close to 0.08 (Browne & Cudeck, 1993; Hu & Bentler, 1999). Hu and Bentler (1999) further offer a "combination rule" for absolute fit indices (i.e., RMSEA and SRMR) that should be favored as evidence for model fit in cases where both RMSEA and SRMR values simultaneously meet or exceed these noted cutoffs.

Subsequently, we tested our hypotheses with a latent change score model using structural equation modeling in Mplus (Muthén &

TABLE 1 Descriptive statistics and correlations

Variable	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Personal initiative T1	297	5.62	0.80	(.88)																		
2. Personal initiative T2	296	5.68	0.82	.67**	(.91)																	
3. Personal initiative T3	295	5.59	0.88	.66**	.73**	(.93)																
4. Positive mood T1	297	5.06	1.11	.58**	.50**	.45**	(.92)															
5. Positive mood T2	296	5.03	1.17	.52**	.63**	.49**	.77**	(.92)														
6. Positive mood T3	289	5.02	1.15	.53**	.43**	.48**	.62**	.64**	(.93)													
7. Negative mood T1	297	2.41	1.27	-.23**	-.16**	-.17**	-.25**	-.27**	-.31**	(.94)												
8. Negative mood T2	296	2.29	1.26	-.23**	-.16**	-.08	-.26**	-.28**	-.31**	.55**	(.94)											
9. Negative mood T3	289	2.35	1.33	-.26**	-.12*	-.12*	-.30**	-.31**	-.31**	.61**	.71**	(.96)										
10. Job autonomy T1	297	5.43	1.44	.49**	.37**	.33**	.46**	.38**	.32*	-.23**	-.23**	-.26**	(.93)									
11. Job autonomy T2	296	5.43	1.45	.41**	.39**	.36**	.39**	.40**	.33**	-.23**	-.28**	-.33**	.76**	(.92)								
12. Job autonomy T3	289	5.35	1.39	.39**	.42**	.47**	.38**	.40**	.38**	-.27**	-.25**	-.31**	.73**	.75**	(.93)							
13. POS T2	296	4.71	1.35	.41**	.36**	.33**	.49**	.45**	.42**	-.25**	-.27**	-.30**	.38**	.40**	.38**	(.93)						
14. Emotional engagement T1	297	5.61	1.22	.52**	.41**	.38**	.59**	.51**	.53**	-.24**	-.19**	-.19**	.31**	.24**	.21**	.36**	(.93)					
15. Emotional engagement T2	296	5.61	1.22	.52**	.61**	.47**	.60**	.69**	.60**	-.25**	-.24**	-.22**	.26**	.30**	.31**	.46**	.68**	(.93)				
16. Emotional engagement T3	297	5.53	1.15	.52**	.54**	.54**	.62**	.67**	.68**	-.27**	-.25**	-.27**	.27**	.31**	.32**	.48**	.65**	.86**	(.93)			
17. Emotional exhaustion T1	297	3.57	1.46	-.24**	-.18**	-.16**	-.39**	-.33**	-.36**	.42**	.33**	.36**	-.32**	-.24**	-.22**	-.31**	-.49**	-.38**	-.35**	(.88)		
18. Emotional exhaustion T2	296	3.55	1.44	-.28**	-.22**	-.16**	-.36**	-.41**	-.36**	.42**	.47**	.47**	-.34**	-.34**	-.29**	-.33**	-.39**	-.43**	-.39**	.72**	(.88)	
19. Emotional exhaustion T3	295	3.51	1.42	-.23**	-.13*	-.15*	-.36**	-.31**	-.40**	.48**	.46**	.53**	-.37**	-.34**	-.34**	-.37**	-.35**	-.36**	-.39**	.66**	.80**	(.88)

Note. T = time; POS = perceived organizational support. Reliability estimates (Cronbach's α) are shown in parentheses.

* $p < .05$. ** $p < .01$.

Muthén, 2012) on the basis of item-level data. Latent change score models are superior to other approaches (e.g., regression analysis with difference scores and latent growth curve modeling), as they allow testing the effects of change in the true score of a predictor variable over time on changes in the true scores of outcomes variables (Liu et al., 2016; McArdle, 2009). The basic structure of a latent change score model to test the effects of personal initiative and change in personal initiative on subsequent change in job autonomy is illustrated in Figure 2. We used a simplified latent change score modeling approach developed by Selig and Preacher (2009) that focuses on tests of mediation and allows the computation of indirect effects.

In the hypothesized indirect effects model, change in personal initiative is assumed to predict subsequent changes in positive mood, negative mood, and job autonomy, which, in turn, are expected to be associated with changes in emotional engagement and exhaustion. Moreover, POS is assumed to moderate the effects of change in personal initiative on changes in positive and negative moods. To test Hypotheses 1, 2, and 5, the latent change variables for positive mood, negative mood, and job autonomy were specified to be influenced by T1 personal initiative, T1–T2 change in personal initiative, and T2 positive mood, negative mood, or job autonomy, respectively. For Hypotheses 1 and 2, we additionally included T2 POS and the interaction between T1–T2 change in personal initiative and T2 POS. To test Hypotheses 3, 4, and 6, the latent change variables for emotional engagement and exhaustion were specified to be influenced by T1 personal initiative, T1–T2 change in personal initiative, T2 positive mood, T2–T3 change in positive mood, T2 negative mood, T2–T3 change in negative mood, T2 job autonomy, T2–T3 change in job autonomy, and T2 emotional engagement or exhaustion, respectively.

Bootstrapping for standard errors cannot be implemented when specifying random effects in Mplus (i.e., as is the case when estimating latent variable interactions using the latent moderated structural equations procedure; see Klein & Moosbrugger, 2000). Thus, we computed (conditional) indirect effects using Selig and Preacher's (2009) Monte Carlo method for assessing mediation. Additionally, we are unable to report standard fit indices for our model as Mplus likewise cannot compute these when random effects are specified. However, we report information on the Akaike information criterion (AIC) and the Bayesian information criterion (BIC) for model comparison purposes (smaller values indicate better model fit).

Finally, we report the results of three supplementary analyses. First, we test a total effects model in which change in personal

initiative from T1 to T2 predicts subsequent changes in emotional engagement and exhaustion from T2 to T3 (i.e., a model without mediator variables). We additionally examined whether POS moderates these effects. Second, we tested a reverse total effects model in which changes in emotional engagement and exhaustion from T1 to T2 predict change in personal initiative from T2 to T3. Third, to rule out an alternative explanation that could be justified by conservation of resources theory (Hobfoll, 1989; i.e., a decrease in emotional engagement and an increase in emotional exhaustion could reduce energy available for a subsequent increase in personal initiative), we tested a reverse indirect effects model. In this model, T1–T2 changes in emotional engagement and exhaustion are assumed to predict T2–T3 changes in positive mood, negative mood, and job autonomy, which, in turn, are assumed to be associated with T2–T3 change in personal initiative.

3 | RESULTS

3.1 | Dimensionality of study variables

Confirmatory factor analyses showed that the variables differed from each other at each of the three measurement occasions (see Table 2). For the T1 data, results of a six-factor model (with personal initiative, positive and negative moods, job autonomy, and emotional engagement and exhaustion) yielded an adequate fit: $\chi^2(309) = 378.198$, $p = .004$; CFI = 0.913; TLI = 0.902; RMSEA = 0.028; SRMR = 0.064. This model fit the data better than did a one-factor model; a four-factor model in which positive and negative mood items and emotional engagement and exhaustion items, respectively, loaded on the same factor; and two 5-factor models in which only positive and negative moods or emotional engagement and exhaustion were combined.

As shown in Table 2, similar results were obtained for data collected at T2 (with a seven-factor model that additionally included POS) and at T3. Of particular note, we observed relative fit indices for the T2 model that were somewhat below the suggested 0.90 cutoff for acceptable fit (i.e., CFI = 0.889 and TLI = 0.876). Several points bear consideration to explain this observation. First, considering Hu and Bentler's (1999) "combination rule" for absolute fit indices, the RMSEA (0.026) and SRMR (0.063) values both exceed the suggested thresholds, suggesting that this model fits the data well regardless of the

FIGURE 2 Simplified example of latent change score model for effect of change in personal initiative (PI) from Time 1 to Time 2 on change in job autonomy (JA) from Time 2 to Time 3. Figure adapted from Selig and Preacher (2009). Numbers in subscripts refer to measurement Time Points 1, 2, and 3, respectively

TABLE 2 Results of confirmatory factor analyses

Model	χ^2	df	p	CFI	TLI	RMSEA	SRMR
Measurement point: Time 1							
One factor	1,012.819	324	<.001	0.149	0.078	0.085	0.153
Four factors (PM + NM) and (ENG + EE)	723.409	318	<.001	0.499	0.447	0.066	0.143
Five factors (PM + NM)	631.460	314	<.001	0.608	0.562	0.058	0.133
Five factors (ENG + EE)	472.309	314	<.001	0.805	0.781	0.041	0.090
Six factors	378.198	309	.004	0.913	0.902	0.028	0.064
Measurement point: Time 2							
One factor	1,265.520	495	<.001	0.122	0.063	0.074	0.152
Seven factors (including POS)	572.098	474	.001	0.889	0.876	0.026	0.063
Measurement point: Time 3							
One factor	805.486	324	<.001	0.377	0.325	0.072	0.175
Six factors	358.868	309	.027	0.935	0.927	0.024	0.053

Note. N = 297. PM = positive mood; NM = negative mood; ENG = emotional engagement; EE = emotional exhaustion; POS = perceived organizational support; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

low observed relative fit indices. Second, as the observed CFI and TLI values nearly met the 0.90 cutoff, we wanted to know how “close” these observed values were to being considered acceptable. To answer this, we bootstrapped confidence intervals for CFI and TLI using an asymptotic resampling strategy (Bollen & Stine, 1992; Yuan, Hayashi, & Yanagihara, 2007). With the use of an iterative process, the T2 model was estimated on 1,000 samples drawn with replacement from our data. CFI and TLI values from each of these 1,000 models were then used to approximate sampling distributions for each respective fit index. From this, we derived 95% confidence intervals from these approximate sampling distributions. The upper bound of each confidence interval included the 0.90 cutoff (CFI = 0.920; TLI = 0.911), suggesting that there is probable chance that these fit indices meet acceptable cutoff values in the population.

Finally, as the T2 model additionally included POS, it was substantively different from the T1 or T3 models that did not include this measure. To address the sensitivity of this model to the specification of T2 POS, we specified an ancillary model in which T2 POS and T2 job autonomy were combined to reflect a single latent variable. This model did not fit the data well in a relative sense, $\chi^2(480) = 677.843$, $p < .001$; CFI = 0.776; TLI = 0.745; RMSEA = 0.037, and SRMR = 0.091. Moreover, in an absolute sense, the combination of RMSEA and SRMR values preferred by Hu and Bentler (1999) also indicates poor fit to the data. Taking this evidence, we are confident in the fit of the T2 model.

3.2 | Measurement equivalence

We examined configural and metric equivalence of the latent variables, separately and in combination, across the three measurement points. Establishing equivalence of measurement models and factor loadings is necessary to ensure that comparisons on the latent variables are valid across time points (Van de Schoot, Lugtig, & Hox, 2012). Consistent with recommendations (Li et al., 2014), we allowed measurement errors for the same items to be correlated over time. Table 3 shows the results of the configural (i.e., free factor loadings) and factorial

equivalence analyses (i.e., factor loadings invariant). Constraining the factor loadings to be equal across time in the factorial equivalence analyses did not substantially change the fit for each latent variable and the combination of the six variables. Changes in CFI, TLI, RMSEA, and SRMR were lower than recommended cutoff values of ΔCFI greater than -0.010 , $\Delta RMSEA$ smaller than 0.015, and $\Delta SRMR$ smaller than 0.030 (Chen, 2007; Cheung & Rensvold, 2002). These results suggest that all measures were equivalent across time points.

Establishing measurement invariance over time is an important consideration for longitudinal data analysis. Likewise, it is also important to determine whether sample attrition had any influence on the measurement of the constructs under investigation. Thus, to further address the potential influence of attrition beyond our previously reported dropout analyses, we tested for T1 measurement equivalence in a multigroup analysis. To accomplish this, we grouped all T1 respondents into “T1 only responders” (i.e., representing those that completed the first wave of the study, and no subsequent waves) and “T1–T3 responders” (i.e., representing the complete panel of respondents) and specified the T1 six-factor confirmatory factor analysis model (see Section 3.1). We then tested for configural and factorial invariance between these groups. The observed differences between these two groups in CFI, TLI, RMSEA, and SRMR values were lower than the recommended cutoff values (i.e., $\Delta CFI = 0.005$, $\Delta RMSEA = 0.001$, and $\Delta SRMR = 0.001$). Further supporting our dropout analyses, these results suggest that all measures were equivalent between the two groups, and that attrition—or more specifically the unobserved mechanism assumed to be the cause of attrition—had no appreciable bearing on the measurement of our constructs at T1.

3.3 | Mean-level and rank-order changes of the sample

Table 1 shows the descriptive statistics and correlations. Regarding mean-level change, participants' personal initiative did not change substantially from T1 to T2 (Cohen's $d = 0.07$, $t = -1.42$, $p = .156$), from T1 to T3 ($d = 0.04$, $t = 0.69$, $p = .489$), and from T2 to T3 ($d = 0.11$, $t = 2.26$,

TABLE 3 Fit of measurement models to test measurement invariance

Model	χ^2	df	p	CFI	TLI	RMSEA	SRMR	Δ CFI	Δ TLI	Δ RMSEA	Δ SRMR
Six factors											
Configural	3,029.502	2,925	<.001	0.909	0.899	0.011	0.062				
Factorial	3,070.352	2,976	<.001	0.910	0.902	0.011	0.064	0.001	0.003	0.000	0.002
Personal initiative											
Configural	476.000	165	<.001	0.954	0.941	0.023	0.052				
Factorial	509.280	177	<.001	0.948	0.939	0.024	0.060	0.005	0.002	0.000	0.008
Positive mood											
Configural	294.450	72	<.001	0.908	0.866	0.044	0.049				
Factorial	308.040	80	<.001	0.907	0.878	0.042	0.056	0.001	0.012	0.002	0.006
Negative mood											
Configural	275.180	72	<.001	0.939	0.911	0.034	0.035				
Factorial	283.350	80	<.001	0.943	0.925	0.031	0.041	0.004	0.014	0.003	0.006
Job autonomy											
Configural	18.339	15	<.001	1.000	1.023	0.000	0.019				
Factorial	19.283	19	<.001	1.000	1.034	0.000	0.021	0.000	0.011	0.000	0.002
Emotional engagement											
Configural	22.893	15	<.001	1.000	1.000	0.002	0.025				
Factorial	40.730	19	<.001	0.986	0.973	0.027	0.036	0.014	0.027	0.024	0.011
Emotional exhaustion											
Configural	101.510	39	<.001	0.965	0.941	0.042	0.039				
Factorial	107.180	45	<.001	0.964	0.947	0.040	0.042	0.002	0.005	0.002	0.003

Note. N = 297. CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

$p = .024$). Similarly, mean levels of the other variables did not change substantially over time (average change $d = 0.04$, $SD = 0.03$; see Table 1). Table 1 shows that, for personal initiative, the correlations were .67 between T1 and T2, .66 between T1 and T3, and .73 between T2 and T3, suggesting moderate stability. The mean test–retest correlation for the other variables was .70 ($SD = 0.08$), indicating that these variables were moderately stable across time (see Table 1).

3.4 | The mediating role of changes in positive and negative moods

Table 4 shows the results of the latent change score model used to test the hypotheses. The log likelihood value was -22237.485 , the AIC was $44,954.971$, and the BIC was $45,841.466$.

According to Hypothesis 1, POS moderates the effect of change in personal initiative on change in positive mood, such that the effect is positive when POS is high and negative when POS is low. As shown in Table 4, T1–T2 change in personal initiative negatively predicted T2–T3 change in positive mood ($B = -0.309$, $SE = 0.139$, $p = .026$). This finding suggests that an increase in personal initiative predicted a subsequent decrease in positive mood. In contrast, T2 POS and the interaction between T1–T2 change in personal initiative and T2 POS did not significantly predict T2–T3 change in positive mood. Thus, Hypothesis 1 was not supported. T1 personal initiative positively predicted T2–T3 change in positive mood ($B = 0.339$, $SE = 0.122$, $p = .006$), suggesting that employees with high initial levels of personal

initiative were more likely to experience an increase in positive mood compared with employees low in personal initiative.

According to Hypothesis 2, POS moderates the effect of change in personal initiative on change in negative mood, such that the effect is negative when POS is high and positive when POS is low. Table 4 shows that T1 personal initiative, T1–T2 change in personal initiative, and T2 POS did not significantly predict T2–T3 change in negative mood. However, the interaction between T1–T2 change in personal initiative and T2 POS significantly predicted T2–T3 change in negative mood ($B = -0.177$, $SE = 0.086$, $p = .038$). We probed this significant interaction effect by computing and plotting the simple slopes. Figure 3 shows that the effect of T1–T2 change in personal initiative on T2–T3 change in negative mood was positive and significant when T2 POS was low (i.e., $-1\ SD$; $B = 0.478$, $SE = 0.148$, $p = .001$). In contrast to expectations, the predicted negative effect was weak and non-significant when POS was high (i.e., $+1\ SD$; $B = -0.014$, $SE = 0.214$, $p = .949$). These results suggest that Hypothesis 2 was partially supported.

Hypothesis 3 states that POS moderates the indirect effects of change in personal initiative on changes in emotional engagement and exhaustion through change in positive mood. T2–T3 change in positive mood was positively related to T2–T3 change in emotional engagement ($B = 0.323$, $SE = 0.061$, $p < .001$) and negatively related to T2–T3 change in emotional exhaustion ($B = -0.215$, $SE = 0.060$, $p < .001$). Regarding the notion of affect (a)symmetries, change in positive mood had only a somewhat stronger association with change in engagement than with change in exhaustion. Hypothesis 3 cannot be

TABLE 4 Results of the hypothesized latent change score model

Predictor variable	Estimate	Standard error	Estimate/standard error	p
Outcome variable: Change in personal initiative from T1 to T2				
Personal initiative T1	-0.227	0.050	-4.570	<.001
Outcome variable: Change in positive mood from T2 to T3				
Personal initiative T1	0.339	0.122	2.772	.006
Change in personal initiative from T1 to T2	-0.309	0.139	-2.228	.026
Perceived organizational support T2	0.088	0.046	1.918	.055
Change in personal initiative from T1 to T2 × Perceived organizational support T2	0.101	0.085	1.185	.236
Positive mood T2	-0.484	0.063	-7.676	<.001
Outcome variable: Change in negative mood from T2 to T3				
Personal initiative T1	-0.062	0.107	-0.582	.561
Change in personal initiative from T1 to T2	0.232	0.140	1.661	.097
Perceived organizational support T2	-0.081	0.047	-1.727	.084
Change in personal initiative from T1 to T2 × Perceived organizational support T2	-0.177	0.086	-2.070	.038
Negative mood T2	-0.273	0.048	-5.683	<.001
Outcome variable: Change in job autonomy from T2 to T3				
Personal initiative T1	0.324	0.109	2.968	.003
Change in personal initiative from T1 to T2	0.313	0.132	2.364	.018
Job autonomy T2	-0.311	0.046	-6.769	<.001
Outcome variable: Change in emotional engagement from T2 to T3				
Personal initiative T1	0.036	0.117	0.311	.756
Change in personal initiative from T1 to T2	-0.031	0.124	-0.253	.800
Positive mood T2	0.412	0.075	5.467	<.001
Change in positive mood from T2 to T3	0.323	0.061	5.326	<.001
Negative mood T2	-0.048	0.043	-1.111	.266
Change in negative mood from T2 to T3	-0.125	0.055	-2.269	.023
Job autonomy T2	-0.007	0.042	-0.174	.862
Change in job autonomy from T2 to T3	-0.008	0.057	-0.133	.894
Emotional engagement T2	-0.589	0.068	-8.615	<.001
Outcome variable: Change in emotional exhaustion from T2 to T3				
Personal initiative T1	0.199	0.113	1.759	.079
Change in personal initiative from T1 to T2	0.158	0.125	1.271	.204
Positive mood T2	-0.047	0.065	-0.720	.471
Change in positive mood from T2 to T3	-0.215	0.060	-3.567	<.001
Negative mood T2	0.115	0.049	2.362	.018
Change in negative mood from T2 to T3	0.181	0.057	3.191	.001
Job autonomy T2	-0.094	0.043	-2.182	.029
Change in job autonomy from T2 to T3	-0.088	0.058	-1.519	.129
Emotional exhaustion T2	-0.230	0.048	-4.841	<.001

Note. $N = 297$. $T =$ time. Model fit information: Log likelihood H_0 value = -22,237.485; Akaike information criterion = 44,954.971; Bayesian information criterion = 45,841.466.

supported because POS did not moderate the effect of change in personal initiative on change in positive mood (see Hypothesis 1). Nevertheless, as change in personal initiative predicted change in positive mood, which, in turn, predicted changes in emotional engagement and exhaustion, we proceeded with testing indirect effects. Table 5 shows that the 95% confidence intervals around the indirect effects of T1–T2 change in personal initiative on T2–T3 changes in emotional engagement and exhaustion through change in positive mood did not include zero, and, thus, the indirect effects ($-.100$ and $.066$, respectively) were significant.

Hypothesis 4 states that POS moderates the indirect effects of change in personal initiative on changes in emotional engagement

and exhaustion through change in negative mood. T2–T3 change in negative mood was negatively related to T2–T3 change in emotional engagement ($B = -0.125$, $SE = 0.055$, $p = .023$) and positively related to T2–T3 change in emotional exhaustion ($B = 0.181$, $SE = 0.057$, $p = .001$; see Table 4). Regarding the affect (a)symmetries notion, change in negative mood had only a somewhat stronger association with change in exhaustion than with change in engagement. Table 5 further shows that POS moderated the indirect effects of T1–T2 change in personal initiative on T2–T3 changes in emotional engagement and exhaustion through T2–T3 change in negative mood. Consistent with results for Hypothesis 2, the 95% confidence intervals around the indirect effects did not include zero when POS was low

FIGURE 3 Effect of change in personal initiative from Time 1 to Time 2 on change in negative mood from Time 2 to Time 3 moderated by perceived organizational support (POS) at Time 2

(i.e., -1 SD) but included zero when POS was high (i.e., $+1$ SD). Thus, Hypothesis 4 was partially supported.

3.5 | The mediating role of change in job autonomy

Hypothesis 5 states that change in personal initiative has a positive effect on change in job autonomy. In support of this hypothesis, Table 4 showed that T1–T2 change in personal initiative positively predicted T2–T3 change in job autonomy ($B = 0.313$, $SE = 0.132$, $p = .018$). T1 personal initiative also positively predicted T2–T3 change in job autonomy ($B = 0.324$, $SE = 0.109$, $p = .003$). According to Hypothesis 6, change in personal initiative has a positive indirect effect on change in emotional engagement, as well as a negative indirect effect on change in emotional exhaustion through change in job autonomy. Contrary to

assumptions, Table 4 shows that T2–T3 change in job autonomy significantly predicted neither T2–T3 change in emotional engagement nor T2–T3 change in emotional exhaustion. Consistently, Table 5 shows that the 95% confidence intervals around the indirect effects of T1–T2 change in personal initiative on T2–T3 changes in emotional engagement and exhaustion through change in job autonomy included zero, and, thus, the indirect effects were not significant. Thus, Hypothesis 6 was not supported.

3.6 | Results of supplementary analyses

3.6.1 | Total effects models

We first tested a total effects model (i.e., a model without mediators) in which change in personal initiative from T1 to T2 was assumed to predict subsequent changes in emotional engagement and exhaustion from T2 to T3. Model fit was acceptable, $\chi^2 = 959.485$, $df = 336$, $p < .001$; CFI = 0.908; TLI = 0.897; RMSEA = 0.079; SRMR = 0.087. T1–T2 change in personal initiative did not significantly predict T2–T3 change in emotional engagement, whereas T1 personal initiative positively predicted T2–T3 change in emotional engagement ($B = 0.226$, $SE = 0.112$, $p = .043$). This suggests that employees with high initial levels of personal initiative were more likely to subsequently increase in emotional engagement. Furthermore, T1–T2 change in personal initiative positively predicted T2–T3 change in emotional exhaustion ($B = 0.274$, $SE = 0.115$, $p = .017$). In contrast, T1 personal initiative did not significantly predict T2–T3 change in emotional exhaustion. Additional analyses revealed that POS did not moderate any of these effects.

We further tested a reverse total effects model in which changes in emotional engagement and exhaustion from T1 to T2 were assumed to predict subsequent change in personal initiative from T2 to T3. Model fit was worse compared with the first total effects model, $\chi^2 = 1,974.869$, $df = 424$, $p < .001$; CFI = 0.812; TLI = 0.794; RMSEA = 0.111; SRMR = 0.212. T1–T2 change in emotional engagement negatively predicted T2–T3 change in personal initiative ($B = -0.263$, $SE = 0.063$, $p < .001$), whereas T1–T2 change in emotional

TABLE 5 Indirect effect estimates with 95% confidence intervals

Predictor variable	Estimate	Standard error	MC 95% CI Lower	MC 95% CI Upper
Mediator: Change in positive mood				
ΔPI T1–T2 $\rightarrow$ ΔPM T2–T3 $\rightarrow$ ΔENG T2–T3	–0.100	0.048	–0.205	–0.010
ΔPI T1–T2 $\rightarrow$ ΔPM T2–T3 $\rightarrow$ ΔEE T2–T3	0.066	0.035	0.007	0.151
Mediator: Change in negative mood				
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔENG T2–T3 (low POS)	–0.060	0.032	–0.120	–0.008
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔENG T2–T3 (medium POS)	–0.029	0.021	–0.068	–0.002
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔENG T2–T3 (high POS)	0.002	0.027	–0.021	0.026
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔEE T2–T3 (low POS)	0.086	0.038	0.032	0.151
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔEE T2–T3 (medium POS)	0.042	0.028	0.009	0.088
ΔPI T1–T2 $\times$ POS T2 $\rightarrow$ ΔNM T2–T3 $\rightarrow$ ΔEE T2–T3 (high POS)	–0.002	0.039	–0.035	0.029
Mediator: Change in job autonomy				
ΔPI T1–T2 $\rightarrow$ ΔJA T2–T3 $\rightarrow$ ΔENG T2–T3	–0.002	0.018	–0.042	0.035
ΔPI T1–T2 $\rightarrow$ ΔJA T2–T3 $\rightarrow$ ΔEE T2–T3	–0.027	0.022	–0.079	0.006

Note. $N = 297$. 95% confidence intervals (CIs) were derived using Selig and Preacher's (2009) Monte Carlo (MC) method for assessing mediation. T = time; PI = personal initiative; POS = perceived organizational support; PM = positive mood; NM = negative mood; JA = job autonomy; ENG = emotional engagement; EE = emotional exhaustion.

exhaustion did not significantly predict T2–T3 change in personal initiative. T1 engagement and exhaustion also did not have significant effects on T2–T3 change in personal initiative. Importantly, given the tenuous fit of this model, some caution should be exercised in interpreting these estimates.

3.6.2 | Alternative (reverse) indirect effects model

We tested a reverse indirect effects model in which T1–T2 changes in emotional engagement and exhaustion are assumed to predict T2–T3 changes in positive mood, negative mood, and job autonomy, which, in turn, are expected to be associated with T2–T3 change in personal initiative. Results of the model are displayed in Table 6. Model fit did

not meet established cutoff values, $\chi^2 = 4,943.426$, $df = 1836$, $p < .001$; CFI = 0.839; TLI = 0.821; RMSEA = 0.075; SRMR = 0.155. The log likelihood H0 value was $-23,567.121$, the AIC value was 47,620.242, and the BIC value was 48,517.819. The absolute fit values were higher than those of the hypothesized model (i.e., $\Delta\log$ likelihood = 1,329.636, $\Delta AIC = 2,665.271$, $\Delta BIC = 2,676.353$), suggesting a better fit of the hypothesized model.

Table 6 shows that T1–T2 changes in emotional engagement and exhaustion did not significantly predict T2–T3 changes in positive mood, negative mood, and job autonomy. Moreover, T1 emotional engagement and exhaustion did not have significant effects on T2–T3 changes in positive mood and job autonomy. However, T1 emotional exhaustion positively predicted T2–T3 change in negative

TABLE 6 Results of alternative (reverse) latent change score model

Predictor variable	Estimate	Standard error	Estimate/standard error	p
Outcome variable: Change in emotional engagement from T1 to T2				
Emotional engagement T1	−0.541	0.089	−6.090	<.001
Outcome variable: Change in emotional exhaustion from T1 to T2				
Emotional exhaustion T1	−0.227	0.053	−4.309	<.001
Outcome variable: Change in positive mood from T2 to T3				
Emotional engagement T1	0.222	0.167	1.328	.184
Change in emotional engagement from T1 to T2	−0.076	0.167	−0.453	.650
Emotional exhaustion T1	−0.055	0.057	−0.970	.332
Change in emotional exhaustion from T1 to T2	−0.020	0.080	−0.254	.800
Perceived organizational support T2	0.120	0.063	1.903	.057
Positive mood T2	−0.575	0.105	−5.464	<.001
Outcome variable: Change in negative mood from T2 to T3				
Emotional engagement T1	0.153	0.095	1.618	.106
Change in emotional engagement from T1 to T2	0.164	0.086	1.898	.058
Emotional exhaustion T1	0.184	0.062	2.996	.003
Change in emotional exhaustion from T1 to T2	0.160	0.117	1.364	.173
Perceived organizational support T2	−0.103	0.048	−2.149	.032
Negative mood T2	−0.328	0.082	−4.000	<.001
Outcome variable: Change in job autonomy from T2 to T3				
Emotional engagement T1	0.087	0.090	0.956	.339
Change in emotional engagement from T1 to T2	0.092	0.113	0.818	.413
Emotional exhaustion T1	−0.023	0.064	−0.356	.722
Change in emotional exhaustion from T1 to T2	−0.025	0.090	−0.273	.784
Job autonomy T2	−0.265	0.056	−4.740	<.001
Outcome variable: Change in personal initiative from T2 to T3				
Emotional engagement T1	−0.131	0.075	−1.751	.080
Change in emotional engagement from T1 to T2	−0.241	0.080	−3.007	.003
Emotional exhaustion T1	0.004	0.035	0.122	.903
Change in emotional exhaustion from T1 to T2	0.022	0.053	0.407	.684
Positive mood T2	0.051	0.059	0.864	.388
Change in positive mood from T2 to T3	0.165	0.055	3.024	.002
Negative mood T2	0.050	0.040	1.245	.213
Change in negative mood from T2 to T3	−0.058	0.048	−1.206	.228
Job autonomy T2	0.088	0.038	2.316	.021
Change in job autonomy from T2 to T3	0.164	0.046	3.567	<.001
Personal initiative T2	−0.154	0.077	−2.017	.044

Note. $N = 297$. T = time. Model fit information: Log likelihood H0 value = $-23,567.121$; Akaike information criterion = 47,620.242; Bayesian information criterion = 48,517.819.

mood ($B = 0.184$, $SE = 0.062$, $p = .003$), suggesting that employees who felt exhausted at T1 were more likely to increase in negative mood from T2 to T3. T2–T3 changes in positive mood ($B = 0.165$, $SE = 0.055$, $p = .002$) and job autonomy ($B = 0.164$, $SE = 0.046$, $p < .001$) were positively associated with T2–T3 change in personal initiative. In contrast, T2–T3 change in negative mood was not significantly related to T2–T3 change in personal initiative. Finally, consistent with the nonsignificant effects of T1–T2 changes in emotional engagement and exhaustion on T2–T3 changes in the mediator variables, none of the indirect effects on T2–T3 changes in personal initiative were significant. As before, caution should be exercised in interpreting these estimates given the tenuous fit of this model to the data.

4 | DISCUSSION

Our results were only partially consistent with those of the dual-pathway model of proactivity and well-being developed by Cangiano and Parker (2016). First, we found that change in personal initiative negatively predicted change in positive mood, independent of POS. This finding was not in line with our assumption based on the control-process theory on affect (Carver & Scheier, 1990), which suggests that change in personal initiative positively predicts change in positive mood when POS is high and negatively predicts change in positive mood when POS is low. However, our finding is consistent with theorizing based on conservation of resources theory (Hobfoll, 1989) and the strength model of self-regulation (Baumeister et al., 1998), which suggests that showing increased personal initiative might drain personal resources such as positive mood (Bolino et al., 2010; Cangiano & Parker, 2016). Interestingly, our results further showed that employees with high initial levels of personal initiative were more likely to subsequently improve in positive mood compared with employees with low initial personal initiative.

These findings illustrate the importance of conceptually and analytically distinguishing within-person “change-to-change” effects from between-person “level-to-level” and “level-to-change” effects, as the sign of these effects may differ (i.e., “Simpson's paradox”; see Vancouver, Thompson, & Williams, 2001, for a related discussion on performance consequences of self-efficacy). Although a within-person increase (decrease) in personal initiative over time appears to lead to subsequent reductions (increases) in positive mood, between-person differences in initial levels of personal initiative were positively associated with subsequent change in positive mood over time. In terms of theoretical implications, these findings suggest that researchers should state explicitly whether they focus in their conceptual models on between-person differences and/or within-person change in proactive behavior and relevant outcome variables. Researchers also should consider the extent to which the same theoretical rationales can be used across these two paradigms to explain associations between proactive behavior and work-related outcomes, such as occupational well-being (see Hamaker, 2012; Molenaar, 2004). In this regard, our findings suggest that generally high (vs. low) levels of personal initiative are a personal strength that benefits positive mood. In contrast, when employees show increases or decreases in personal initiative over time (independent of their general level), this is likely to drain or build

energy resources as indicated by decreases or increases in positive mood, respectively.

Second, we found that change in personal initiative positively predicted change in negative mood when POS was low but did not have an effect when POS was high. This finding is consistent with our arguments based on the control-process theory on affect (Carver & Scheier, 1990) and organizational support theory (Eisenberger et al., 1986), suggesting that employees who increase their personal initiative, but do not feel valued and supported by their organization, are more likely to experience a subsequent increase in negative mood. However, we did not find support for the related assumption that, when POS is high, negative mood is reduced after showing increased personal initiative. Hence, even when employees feel supported at work, engaging in proactive behavior does not seem to follow a resource-generation pathway toward increased well-being over a longer time period.

Third, consistent with our expectations based on broaden-and-build theory (Fredrickson, 2001), conservation of resources theory (Hobfoll, 1989), as well as theorizing by Carver and Scheier (1990) and Connolly and Viswesvaran (2000), we found that change in positive mood was positively associated with change in emotional engagement and negatively associated with change in emotional exhaustion. Moreover, change in negative mood was negatively related to change in emotional engagement and positively related to change in emotional exhaustion. These results provide further support for the existence of affect asymmetries (i.e., negative mood associated with positive outcomes and positive mood associated with negative outcomes; Bono et al., 2013; Thoresen et al., 2003). Moreover, we showed that change in personal initiative indirectly predicted changes in emotional engagement and exhaustion via change in positive mood and, when POS was low, via change in negative mood. Overall, these findings help shed further light on the underlying affective processes and boundary conditions of the effects of proactive behavior on employee well-being (Cangiano et al., 2017; Cangiano & Parker, 2016).

Fourth, consistent with our expectation based on action regulation theory (Frese et al., 2007; Frese & Zapf, 1994), we found a positive effect of change in personal initiative on subsequent change in job autonomy. This suggests that employees who show increases in personal initiative experience a subsequent improvement in job autonomy. Our finding of a change-to-change effect extends previous research that has demonstrated level-to-change effects of proactivity on work characteristics, including job autonomy (Frese et al., 2007; Li et al., 2014). Consistent with previous research, we also found that employees with high initial levels of personal initiative, compared with employees with low initial personal initiative, experienced subsequent increases in job autonomy. Thus, in this case, the within-person change-to-change and the between-person level-to-change effects were consistent with each other. With regard to theoretical implications, these findings suggest that by showing personal initiative, employees can align certain features of their job with their personal abilities and needs. This process is also described by the concept of job crafting (Wrzesniewski & Dutton, 2001). Indeed, in the context of a recent meta-analysis, researchers have begun to theoretically integrate models of proactive behavior and job crafting (Rudolph, Katz, Lavigne, & Zacher, 2017).

Contrary to expectations, we did not find the expected associations between change in job autonomy and changes in emotional engagement and exhaustion. These findings may be explained by research suggesting that change in job autonomy may not only have beneficial consequences but can also pose challenges to employee well-being (Kubicek, Paskvan, & Bunner, 2017; Putnam, Myers, & Gailliard, 2014). These positive and negative effects of increased job autonomy may cancel each other out and result in an overall weak effect on occupational well-being. On the one hand, providing employees with more opportunities to make decisions might help them to organize their work tasks in line with their abilities and preferences and to better coordinate their work and nonwork activities. These changes, in turn, should have positive effects on well-being (Demerouti et al., 2001). On the other hand, increasing job autonomy might have detrimental effects and temporarily reduce employee well-being. For instance, research on the so-called autonomy paradox suggests that when employees are provided with greater autonomy, they may work more intensely and feel more constrained in their jobs (Mazmanian, Orlikowski, & Yates, 2013; Putnam et al., 2014). Moreover, an increase in job autonomy may result in more work-related demands and responsibilities, which require self-regulatory effort and may negatively affect occupational well-being (Kubicek et al., 2017; Li et al., 2014; Mazmanian et al., 2013). Further research is needed to better understand such potential "double-edged sword" effects of increases in job autonomy on occupational well-being.

Consistent with the dual-pathway model of proactivity and well-being (Cangiano & Parker, 2016), we did not predict overall effects of change in personal initiative on changes in emotional engagement and exhaustion. The reason for this was that we expected the various positive and negative indirect effects (e.g., via changes in positive and negative moods and job autonomy) to cancel each other out and lead to weak overall effects. Consistent with this assumption, a supplementary total effects model showed that change in personal initiative did not have a total effect on change in emotional engagement but, unexpectedly, a positive total effect on change in emotional exhaustion. The latter findings suggest that all of the detrimental mechanisms underlying the effect of change in personal initiative on change in emotional exhaustion (including the negative effect on change in positive mood and the conditional effect on change in negative mood, but also additional unmeasured mechanisms) outweighed all underlying beneficial mechanisms (which we did not identify in the current study). Interestingly, this finding is consistent with a growing body of research suggesting that energy-consuming forms of employee activity, such as job engagement, organizational citizenship behavior, and ethical leadership, may reduce well-being (Bolino, Klotz, Turnley, & Harvey, 2013; Halbesleben, Harvey, & Bolino, 2009; Lanaj, Johnson, & Wang, 2016; Lin, Ma, & Johnson, 2016). In contrast, change in personal initiative may not have a total effect on change in emotional engagement, because the detrimental and beneficial mechanisms underlying this effect cancel each other out.

Finally, results of a reverse causal model showed that changes in positive mood, negative mood, and job autonomy did not mediate the effects of changes in emotional engagement and exhaustion on subsequent change in personal initiative. However, consistent with previous research on mood and job characteristics as predictors of

proactive behavior (Cangiano et al., 2017; Ohly & Schmitt, 2017; Parker et al., 2010), change in positive mood (but not change in negative mood) and change in job autonomy were positively associated with change in personal initiative. These findings are consistent with broaden-and-build theory (Fredrickson, 2001) and action regulation theory (Frese & Zapf, 1994), which suggest that positive mood and job autonomy, respectively, are important resources that can stimulate proactive behavior.

4.1 | Theoretical and practical implications

Our study contributes to theorizing on proactive behavior (Bindl & Parker, 2011; Parker et al., 2010) and its potential affective and well-being consequences (Bolino et al., 2010; Cangiano et al., 2017; Cangiano & Parker, 2016) in at least three ways. First, our study has implications for theorizing on within- and between-person effects, as well as long-term consequences of proactive behavior. Whereas meta-analytic reviews found that personal initiative is positively related to job performance (Thomas et al., 2010; Tornau & Frese, 2013), other research suggests that emotional engagement is positively and emotional exhaustion is negatively related to job performance (Janssen, Lam, & Huang, 2010; Rich et al., 2010). Thus, at first, our finding that change in personal initiative, via changes in positive mood and, when POS is low, negative mood, indirectly predicts changes in emotional engagement and exhaustion may seem counterintuitive. However, it is important to take into account that we investigated longer term within-person effects of change (i.e., increases, decreases, or stability) in personal initiative on subsequent within-person changes in well-being outcomes over 6 months, whereas previous studies on personal initiative, performance-related outcomes, and well-being have used cross-sectional designs, two-wave between-person designs, or daily diary designs. Thus, our findings suggest that future theorizing and research should examine both performance and well-being effects of change in proactive behavior across different time lags (see Ilies, Aw, & Pluut, 2015).

Second, results of our moderated mediation model based on an integration of affect-based, motivational, and resource-based theorizing contribute to theory development on the explanatory mechanisms and boundary condition of the effects of proactive behavior on well-being outcomes. The dual-pathway model suggests that the overall effects of proactive behavior on well-being outcomes may be weak or even zero, as the underlying positive and negative mechanisms are likely to cancel each other out (Cangiano & Parker, 2016). In their daily diary study, Fay and Hüttges (2017) hypothesized that negative mood (but not positive mood) is a mediator, but they did not find a significant indirect effect. Strauss et al. (2017) focused on employee motivations as moderators of the effect of proactive behavior on job strain. Consistent with our findings regarding POS, Cangiano (2017) showed in a daily diary study that proactive work behavior positively predicted bedtime fatigue, but only when employees perceived low supervisor support. Thus, our findings and previous studies suggest that it is essential that models of proactivity and well-being include multiple mediator and moderator variables.

Finally, we included both positive and negative well-being outcomes of proactive behavior, whereas previous research has primarily focused on job strain (Fay & Hüttges, 2017; Strauss et al., 2017; see Cangiano, 2017, for an exception). Our findings suggest that change

in personal initiative may indirectly influence changes in both emotional engagement and exhaustion via change in positive mood, as well as via change in negative mood when POS is low. Thus, we also contribute to the literature on work engagement, burnout, and exhaustion, which has primarily conceptualized and tested proactive behavior as an outcome, and not as an antecedent of occupational well-being (e.g., Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Schmitt, Den Hartog, & Belschak, 2016; Sonnentag, 2003).

In terms of practical implications, employees who engage in and increase their proactive behavior over time must be aware that there are risks associated with this form of behavior (Bolino et al., 2017; Glaser et al., 2016). Although they may be rewarded for behaving in proactive ways in terms of performance-related outcomes and career success, it is possible that their mood and occupational well-being suffer. Thus, employees need to be wise when they engage in proactive behavior and take their personal resources and constraints into account to prevent exhaustion and reduced engagement (Parker & Liao, 2016). Moreover, organizational leaders and managers should be aware that high POS can mitigate some of the indirect influences of proactive behavior on negative mood and, indirectly, emotional engagement and exhaustion. An effective way to enhance POS is to increase supervisor support (Eisenberger et al., 2002).

4.2 | Limitations and future research

A first limitation of our research is that all variables were assessed with self-report scales, which may raise concerns about common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). Although our confirmatory factor analyses suggested that common method bias is unlikely to be a problem, future research should attempt to replicate our results by using additional sources (e.g., supervisors and spouses; see Strauss et al., 2017) to assess personal initiative or well-being outcomes. Second, future research also could examine the relative effects of changes in different forms of proactive behavior, including personal initiative, voice, and taking charge, simultaneously (Parker & Collins, 2010; Tornau & Frese, 2013). Third, with approximately 50 years, the average age of our sample was relatively high compared with that of the Australian workforce (i.e., 39% of workers are aged 45 years and older; Australian Government, 2017). A potential explanation is that older adults were somewhat overrepresented in the database of the panel company that collected the data. Thus, future research needs to show that our findings generalize to other samples, including younger workers. Fourth, our three-wave design does not allow us to examine effects of within-person change in personal initiative on subsequent changes in well-being outcomes across different time periods. We focused on the effects of within-person change in personal initiative (as opposed to between-person differences) to be able to draw firmer causal inferences (Eschleman & LaHuis, 2014). To additionally investigate different timing effects, future studies should include additional measurement waves. Moreover, our three-wave design did not allow us to separate changes in the mediator variables from changes in the well-being outcomes (i.e., they all changed from T2 to T3). Thus, it is not possible to draw causal conclusions regarding the associations among changes in positive and negative moods, job autonomy, and emotional engagement and exhaustion. Future studies

should assess variables across four measurement waves to separate changes in predictor, mediator, and outcomes variables and to be able to draw stronger causal conclusions (Selig & Preacher, 2009).

Finally, except for positive and negative moods, we did not use explicit time referents to measure our constructs. Thus, although we observed within-person changes in the variables over time, the measurement may have been more "trait oriented" than desired. Future research should use measures of personal initiative, job autonomy, and occupational well-being that are more "state oriented." For instance, a recent study on personal initiative and business outcomes that used the same time interval as we did added the words "In the last six months ..." before the personal initiative items to make the measure more state oriented (Campos et al., 2017).

On the basis of the dual-pathway model (Cangiano & Parker, 2016), future studies could investigate additional mechanisms. For instance, in line with self-determination theory, studies could assess the extent to which employees are able to satisfy their needs for autonomy, competence, and relatedness (Gagné & Deci, 2005; Ryan & Deci, 2000; Strauss & Parker, 2014) by engaging in proactive behavior to explain its effects on well-being. Moreover, future studies should distinguish between high and low activated positive and negative moods (Warr, Bindl, Parker, & Inceoglu, 2014). Consistent with previous research on affect and proactive behavior (Bindl et al., 2012), our mood scales based on the Positive and Negative Affect Schedule (Watson et al., 1988) focused on high activation (e.g., excitement and frustration). However, less activated forms of mood (e.g., calm and sad) may also be relevant outcomes of proactive behavior, particularly when POS is low.

Future research also should consider additional boundary conditions. For instance, the consequences of change in personal initiative on subsequent change in occupational well-being might depend on whether people are successful in implementing self-initiated and future-oriented work behavior (Parker et al., 2010). Occupational well-being is most likely to suffer when an increase in personal initiative turns out to be ineffective for the individual. In addition, detrimental effects for employee well-being are more likely to occur under conditions of increasing job demands such as time pressure, interdependence, or role conflicts that require the mobilization of additional resources such as time and energy (LePine, LePine, & Jackson, 2004).

5 | CONCLUSION

Extending research on the consequences of proactive behavior, we adopted a dynamic within-person approach to investigate indirect effects of change in personal initiative on subsequent changes in occupational well-being outcomes. We showed that change in personal initiative negatively predicted change in positive mood and, when POS was low, change in negative mood. Moreover, change in personal initiative positively predicted change in job autonomy. Change in personal initiative had indirect effects on changes in emotional engagement and exhaustion via change in positive mood and, when POS was low, change in negative mood (but not change in job autonomy). These findings suggest that future research and practice should account for potential detrimental effects and attempt to

identify potential beneficial effects of change in proactive behavior on change in occupational well-being.

ACKNOWLEDGEMENTS

We thank the Editor, Sharon K. Parker, and three anonymous reviewers for their constructive feedback and helpful guidance throughout the review process.

ORCID

Hannes Zacher <http://orcid.org/0000-0001-6336-2947>

Antje Schmitt <http://orcid.org/0000-0003-4901-7033>

Nerina L. Jimmieson <http://orcid.org/0000-0003-4901-7949>

Cort W. Rudolph <http://orcid.org/0000-0002-0536-9638>

REFERENCES

- Alarcon, G., Eschleman, K. J., & Bowling, N. A. (2009). Relationships between personality variables and burnout: A meta-analysis. *Work & Stress*, 23, 244–263. <https://doi.org/10.1080/02678370903282600>
- Australian Government (2017). Australian jobs 2017. Canberra, Australia: Department of Employment.
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Work engagement: Further reflections on the state of play. *European Journal of Work and Organizational Psychology*, 20, 74–88. <https://doi.org/10.1080/1359432X.2010.546711>
- Bakker, A. B., & Bal, M. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83, 189–206. <https://doi.org/10.1348/096317909X402596>
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99, 274–284. <https://doi.org/10.1037/0022-0663.99.2.274>
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22, 187–200. <https://doi.org/10.1080/02678370802393649>
- Barsade, S. G., & Gibson, D. E. (2007). Why does affect matter in organizations? *Academy of Management Perspectives*, 21, 36–59. <https://doi.org/10.5465/AMP.2007.24286163>
- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, 74, 1252–1265. <https://doi.org/10.1037/0022-3514.74.5.1252>
- Belschak, F. D., Hartog, D. N., & Fay, D. (2010). Exploring positive, negative and context-dependent aspects of proactive behaviours at work. *Journal of Occupational and Organizational Psychology*, 83, 267–273. <https://doi.org/10.1348/096317910X501143>
- Billings, D. W., Folkman, S., Acree, M., & Moskowitz, J. T. (2000). Coping and physical health during caregiving: The roles of positive and negative affect. *Journal of Personality and Social Psychology*, 79, 131–142. <https://doi.org/10.1037/0022-3514.79.1.131>
- Bindl, U. K., & Parker, S. K. (2011). Proactive work behavior: Forward-thinking and change-oriented action in organizations. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (Vol. 2) (pp. 567–598). Washington, DC: American Psychological Association.
- 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, 134–150. <https://doi.org/10.1037/a0024368>
- Bledow, R., Schmitt, A., Frese, M., & Kühnel, J. (2011). The affective shift model of work engagement. *Journal of Applied Psychology*, 96, 1246–1257. <https://doi.org/10.1037/a0024532>
- Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, 34, 542–559. <https://doi.org/10.1002/job.1847>
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work–family conflict. *Journal of Applied Psychology*, 90, 740–748. <https://doi.org/10.1037/0021-9010.90.4.740>
- Bolino, M. C., Turnley, W. H., & Anderson, H. J. (2017). The dark side of proactive behavior: When being proactive may hurt oneself, others, or the organization. In S. K. Parker, & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations*. New York: Taylor & Francis.
- Bolino, M. C., Valcea, S., & Harvey, J. (2010). Employee, manage thyself: The potentially negative implications of expecting employees to behave proactively. *Journal of Occupational and Organizational Psychology*, 83, 325–345. <https://doi.org/10.1348/096317910X493134>
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping goodness-of-fit measures in structural equation models. *Sociological Methods & Research*, 21, 205–229. <https://doi.org/10.1177/0049124192021002004>
- Bono, J. E., Glomb, T. M., Shen, W., Kim, E., & Koch, A. J. (2013). Building positive resources: Effects of positive events and positive reflection on work stress and health. *Academy of Management Journal*, 56, 1601–1627. <https://doi.org/10.5465/amj.2011.0272>
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279–307. <https://doi.org/10.1146/annurev.psych.53.100901.135156>
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.
- Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017). Teaching personal initiative beats traditional training in boosting small business in West Africa. *Science*, 357, 1287–1290. <https://doi.org/10.1126/science.aan5329>
- Cangiano, F. (2017). Burden or resource: Exploring the personal outcomes of proactive behaviour. Doctoral dissertation: The University of Western Australia Business School.
- Cangiano, F., Bindl, U. K., & Parker, S. K. (2017). The “hot” side of proactivity: Exploring an affect-based perspective on proactivity in organizations. In S. K. Parker, & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 355–384). New York: Taylor & Francis.
- Cangiano, F., & Parker, S. K. (2016). Proactivity for mental health and well-being. In S. Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell handbook of the psychology of occupational safety and workplace health* (pp. 228–250). London: Wiley.
- Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality-social, clinical, and health psychology. *Psychological Bulletin*, 92, 111–135. <https://doi.org/10.1037/0033-2909.92.1.111>
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19–35. <https://doi.org/10.1037/0033-295X.97.1.19>
- Charles, S. T., Reynolds, C. A., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology*, 80, 136–151. <https://doi.org/10.1037/0022-3514.80.1.136>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, 14, 464–504. <https://doi.org/10.1080/10705510701301834>
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9, 233–255. https://doi.org/10.1207/S15328007SEM0902_5
- Cole, M. S., Walter, F., Bedeian, A. G., & O’Boyle, E. H. (2012). Job burnout and employee engagement: A meta-analytic examination of construct proliferation. *Journal of Management*, 38, 1550–1581. <https://doi.org/10.1177/0149206311415252>

- Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: A meta-analysis. *Personality and Individual Differences*, 29, 265–281. [https://doi.org/10.1016/S0191-8869\(99\)00192-0](https://doi.org/10.1016/S0191-8869(99)00192-0)
- Crant, J. M. (2000). Proactive behavior in organizations. *Journal of Management*, 26, 435–462. <https://doi.org/10.1177/014920630002600304>
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834–848. <https://doi.org/10.1037/a0019364>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, 86, 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Dormann, C., & Griffin, M. A. (2015). Optimal time lags in panel studies. *Psychological Methods*, 20, 489–505. <https://doi.org/10.1037/met0000041>
- Eisenberger, R., Huntington, R., Hutchinson, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Eisenberger, R., Stinglhamer, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87, 565–573. <https://doi.org/10.1037/0021-9010.87.3.565>
- Eschleman, K. J., & LaHuis, D. (2014). Advancing occupational stress and health research and interventions using latent difference score modeling. *International Journal of Stress Management*, 21, 112–136. <https://doi.org/10.1037/a0033099>
- Fay, D., & Hüttges, A. (2017). Drawbacks of proactivity: Effects of daily proactivity on daily salivary cortisol and subjective well-being. *Journal of Occupational Health Psychology*, 22, 429–442. <https://doi.org/10.1037/ocp0000042>
- Fay, D., & Sonnentag, S. (2002). Rethinking the effects of stressors: A longitudinal study on personal initiative. *Journal of Occupational Health Psychology*, 7, 221–234. <https://doi.org/10.1037/1076-8998.7.3.221>
- Fay, D., & Sonnentag, S. (2012). Within-person fluctuations of proactive behavior: How affect and experienced competence regulate work behavior. *Human Performance*, 25, 72–93. <https://doi.org/10.1080/08959285.2011.631647>
- Fernet, C., Austin, S., Trépanier, S. G., & Dussault, M. (2013). How do job characteristics contribute to burnout? Exploring the distinct mediating roles of perceived autonomy, competence, and relatedness. *European Journal of Work and Organizational Psychology*, 22, 123–137. <https://doi.org/10.1080/1359432X.2011.632161>
- Foldnes, N., & Olsson, U. H. (2015). Correcting too much or too little? The performance of three chi-square corrections. *Multivariate Behavioral Research*, 50, 533–543. <https://doi.org/10.1080/00273171.2015.1036964>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226. <https://doi.org/10.1037/0003-066X.56.3.218>
- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior*, 23, 133–187. [https://doi.org/10.1016/S0191-3085\(01\)23005-6](https://doi.org/10.1016/S0191-3085(01)23005-6)
- Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Organizational and Occupational Psychology*, 70, 139–161. <https://doi.org/10.1111/j.2044-8325.1997.tb00639.x>
- Frese, M., Garst, H., & Fay, D. (2007). Making things happen: Reciprocal relationships between work characteristics and personal initiative in a four-wave longitudinal structural equation model. *Journal of Applied Psychology*, 92, 1084–1102. <https://doi.org/10.1037/0021-9010.92.4.1084>
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39, 37–63. <https://doi.org/10.2307/256630>
- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette, & L. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 4) (pp. 271–340). Palo Alto, CA: Consulting Psychologists Press.
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331–362. <https://doi.org/10.1002/job.322>
- Garst, H., Frese, M., & Molenaar, P. C. M. (2000). The temporal factor of change in stressor–strain relationships: A growth curve model on a longitudinal study in East Germany. *Journal of Applied Psychology*, 85, 417–438. <https://doi.org/10.1037/0021-9010.85.3.417>
- Glaser, L., Stam, W., & Takeuchi, R. (2016). Managing the risks of proactivity: A multilevel study of initiative and performance in the middle management context. *Academy of Management Journal*, 59, 1339–1360. <https://doi.org/10.5465/amj.2014.0177>
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, 28, 3–34. <https://doi.org/10.1016/j.riob.2008.04.002>
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50, 327–347. <https://doi.org/10.5465/AMJ.2007.24634438>
- Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: A longitudinal study. *Journal of Applied Psychology*, 95, 174–182. <https://doi.org/10.1037/a0017263>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495–513. <https://doi.org/10.1016/j.jsp.2005.11.001>
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73, 78–91. <https://doi.org/10.1016/j.jvb.2008.01.003>
- Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven-year prospective study. *Journal of Affective Disorders*, 141, 415–424. <https://doi.org/10.1016/j.jad.2012.02.043>
- Halbesleben, J. R. B., Harvey, J., & Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, 94, 1452–1465. <https://doi.org/10.1037/a0017595>
- Hamaker, E. L. (2012). Why researchers should think "within-person": A paradigmatic view. In M. R. Mehl, & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 43–61). New York, NY: Guilford.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103–128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55. <https://doi.org/10.1080/10705519909540118>
- Ilies, R., Aw, S. S., & Pluut, H. (2015). Intraindividual models of employee well-being: What have we learned and where do we go from here? *European Journal of Work and Organizational Psychology*, 24, 827–838. <https://doi.org/10.1080/1359432X.2015.1071422>

- Janssen, O. (2004). How fairness perceptions make innovative behavior more or less stressful. *Journal of Organizational Behavior*, 25, 201–215. <https://doi.org/10.1002/job.238>
- Janssen, O., Lam, C. K., & Huang, X. (2010). Emotional exhaustion and job performance: The moderating roles of distributive justice and positive affect. *Journal of Organizational Behavior*, 31, 787–809. <https://doi.org/10.1002/job.614>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692–724. <https://doi.org/10.2307/256287>
- Klein, A., & Moosbrugger, H. (2000). Maximum likelihood estimation of latent interaction effects with the LMS method. *Psychometrika*, 65, 457–474. <https://doi.org/10.1007/BF02296338>
- Kubicek, B., Paskvan, M., & Bunner, J. (2017). The bright and dark sides of job autonomy. In C. Korunka, & B. Kubicek (Eds.), *Job demands in a changing world of work: Impact on workers' health and performance and implications for research and practice* (pp. 45–63). Cham, Switzerland: Springer.
- Lanaj, K., Johnson, R. E., & Wang, M. (2016). When lending a hand depletes the will: The daily costs and benefits of helping. *Journal of Applied Psychology*, 101, 1097–1110. <https://doi.org/10.1037/apl0000118>
- Lee, J., & Peccei, R. (2007). Perceived organizational support and affective commitment: The mediating role of organization-based self-esteem in the context of job insecurity. *Journal of Organizational Behavior*, 28, 661–685. <https://doi.org/10.1002/job.431>
- LePine, J. A., LePine, M. A., & Jackson, C. L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, 89, 883–891. <https://doi.org/10.1037/0021-9010.89.5.883>
- Li, W.-D., Fay, D., Frese, M., Harms, P. D., & Gao, X. Y. (2014). Reciprocal relationship between proactive personality and work characteristics: A latent change score approach. *Journal of Applied Psychology*, 99, 948–965. <https://doi.org/10.1037/a0036169>
- Lin, S.-H., Ma, J., & Johnson, R. E. (2016). When ethical leader behavior breaks bad: How ethical leader behavior can turn abusive via ego depletion and moral licensing. *Journal of Applied Psychology*, 101, 815–830. <https://doi.org/10.1037/apl0000098>
- Liu, Y., Mo, S., Song, Y., & Wang, M. (2016). Longitudinal analysis in occupational health psychology: A review and tutorial of three longitudinal modeling techniques. *Applied Psychology: An International Review*, 65, 379–411. <https://doi.org/10.1111/apps.12055>
- Mackinnon, A., Jorm, A. F., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the Positive and Negative Affect Schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. *Personality and Individual Differences*, 27, 405–416. [https://doi.org/10.1016/S0191-8869\(98\)00251-7](https://doi.org/10.1016/S0191-8869(98)00251-7)
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, 2, 99–113. <https://doi.org/10.1002/job.4030020205>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70, 149–171. <https://doi.org/10.1016/j.jvb.2006.09.002>
- Mazmanian, M., Orlowski, W. J., & Yates, J. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*, 24, 1337–1357. <https://doi.org/10.1287/orsc.1120.0806>
- McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology*, 60, 577–605. <https://doi.org/10.1146/annurev.psych.60.110707.163612>
- Molenaar, P. C. M. (2004). A manifesto on psychology as idiographic science: Bringing the person back into scientific psychology, this time forever. *Measurement*, 2, 201–218. https://doi.org/10.1207/s15366359mea0204_1
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91, 1321–1339. <https://doi.org/10.1037/0021-9010.91.6.1321>
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus version 7*. Los Angeles, CA: Muthén & Muthén.
- Ng, T. W. H., & Sorensen, K. L. (2008). Towards a further understanding of the relationships between perceptions of support and work attitudes: A meta-analysis. *Group & Organization Management*, 33, 243–268. <https://doi.org/10.1177/1059601107313307>
- Ohly, S., & Schmitt, A. (2017). Work design and proactivity. In S. K. Parker, & U. K. Bindl (Eds.), *Proactivity at work: Making things happen in organizations* (pp. 387–410). New York: Routledge.
- Parker, S. K., & Bindl, U. K. (2017). *Proactivity at work: Making things happen in organizations*. New York: Routledge.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, 36, 827–856. <https://doi.org/10.1177/0149206310363732>
- Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple proactive behaviors. *Journal of Management*, 36, 633–662. <https://doi.org/10.1177/0149206308321554>
- Parker, S. K., & Liao, J. (2016). Wise proactivity: How to be proactive and wise in building your career. *Organizational Dynamics*, 45(3), 217–227. <https://doi.org/10.1016/j.orgdyn.2016.07.007>
- Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, 36, 94–120. <https://doi.org/10.1177/0149206309352110>
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendation on how to control it. *Annual Review of Psychology*, 63, 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Potočník, K., & Anderson, N. (2016). A constructively critical review of change and innovation-related concepts: Towards conceptual and operational clarity. *European Journal of Work and Organizational Psychology*, 25, 481–494. <https://doi.org/10.1080/1359432X.2016.1176022>
- Putnam, L. L., Myers, K. K., & Gaillard, B. M. (2014). Examining the tensions in workplace flexibility and exploring options for new directions. *Human Relations*, 67, 413–440. <https://doi.org/10.1177/0018726713495704>
- R Core Team (2016). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. <http://www.r-project.org/>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87, 698–714. <https://doi.org/10.1037/0021-9010.87.4.698>
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86, 825–836. <https://doi.org/10.1037/0021-9010.86.5.825>
- Rich, B. L., LePine, J. A., & Crawford, E. A. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53, 617–635. <https://doi.org/10.5465/AMJ.2010.51468988>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Rudolph, C. W., Katz, I. M., Lavigne, K. N., & Zacher, H. (2017). Job crafting: A meta-analysis of relationships with individual differences, job characteristics, and work outcomes. *Journal of Vocational Behavior*, 102, 112–138. <https://doi.org/10.1016/j.jvb.2017.05.008>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>

- Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2016). Transformational leadership and proactive work behaviour: A moderated mediation model including work engagement and job strain. *Journal of Occupational and Organizational Psychology*, 89, 588–610. <https://doi.org/10.1111/joop.12143>
- Seibert, S. E., Kraimer, M. L., & Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology*, 54, 845–874. <https://doi.org/10.1111/j.1744-6570.2001.tb00234.x>
- Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. *Research in Human Development*, 6, 144–164. <https://doi.org/10.1080/15427600902911247>
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88, 518–528. <https://doi.org/10.1037/0021-9010.88.3.518>
- Sonnentag, S. (2012). Time in organizational research: Catching up on a long neglected topic in order to improve theory. *Organizational Psychology Review*, 2, 361–368. <https://doi.org/10.1177/2041386612442079>
- Spector, P. E., Jex, S. M., & Chen, P. Y. (1995). Relations of incumbent affect-related personality traits with incumbent and objective measures of characteristics of jobs. *Journal of Organizational Behavior*, 16, 59–65. <https://doi.org/10.1002/job.4030160108>
- Strauss, K., & Parker, S. K. (2014). Effective and sustained proactivity in the workplace: A self-determination theory perspective. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 50–72). Oxford: Oxford University Press.
- Strauss, K., Parker, S. K., & O'Shea, D. (2017). When does proactivity have a cost? Motivation at work moderates the effects of proactive work behavior on employee job strain. *Journal of Vocational Behavior*, 100, 15–26. <https://doi.org/10.1016/j.jvb.2017.02.001>
- Terry, D. J., & Jimmieson, N. L. (1999). Work control and employee well-being: A decade review. In C. L. Cooper, & I. T. Robertson (Eds.), *International review of industrial and organizational psychology*. Chichester, UK: Wiley.
- Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in organizations: A comparative meta-analysis of emerging proactive constructs. *Journal of Occupational and Organizational Psychology*, 83, 275–300. <https://doi.org/10.1348/096317910X502359>
- Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin*, 129, 914–945. <https://doi.org/10.1037/0033-2909.129.6.914>
- Tomau, K., & Frese, M. (2013). Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and their incremental validities. *Applied Psychology: An International Review*, 62, 44–96. <https://doi.org/10.1111/j.1464-0597.2012.00514.x>
- Van de Schoot, R., Lugtig, P., & Hox, J. (2012). A checklist for testing measurement invariance. *European Journal of Developmental Psychology*, 9, 486–492. <https://doi.org/10.1080/17405629.2012>
- Vancouver, J. B., Thompson, C. M., & Williams, A. A. (2001). The changing signs in the relationships among self-efficacy, personal goals, and performance. *Journal of Applied Psychology*, 86, 605–620. <https://doi.org/10.1037/0021-9010.86.4.605>
- Wang, H., & Li, J. (2015). How trait curiosity influences psychological well-being and emotional exhaustion: The mediating role of personal initiative. *Personality and Individual Differences*, 75, 135–140. <https://doi.org/10.1016/j.paid.2014.11.020>
- Wang, M., Beal, D. J., Chan, D., Newman, D. A., Vancouver, J. B., & Vandenberg, R. J. (2017). Longitudinal research: A panel discussion on conceptual issues, research design, and statistical techniques. *Work, Aging and Retirement*, 3, 1–24. <https://doi.org/10.1093/workar/waw033>
- Warr, P., Barter, J., & Brownbridge, G. (1983). On the independence of positive and negative affect. *Journal of Personality and Social Psychology*, 44, 644–651. <https://doi.org/10.1037/0022-3514>
- Warr, P., Bindl, U. K., Parker, S. K., & Inceoglu, I. (2014). Four-quadrant investigation of job-related affects and behaviours. *European Journal of Work and Organizational Psychology*, 23, 342–363. <https://doi.org/10.1080/1359432X.2012.744449>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83, 486–493. <https://doi.org/10.1037/0021-9010.83.3.486>
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26, 179–201. <https://doi.org/10.5465/AMR.2001.4378011>
- Yuan, K. H., Hayashi, K., & Yanagihara, H. (2007). A class of population covariance matrices in the bootstrap approach to covariance structure analysis. *Multivariate Behavioral Research*, 42, 261–281. <https://doi.org/10.1080/00273170701360662>
- Zacher, H., & Frese, M. (2018). Action regulation theory: Foundations, current knowledge, and future directions. In D. S. Ones, N. R. Anderson, C. Viswesvaran, & H. K. Sinangil (Eds.), *The SAGE handbook of industrial, work and organizational psychology* (2nd ed., Vol. 2: Organizational psychology) (pp. 80–102). Thousand Oaks, CA: Sage.
- Zacher, H., & Rudolph, C. W. (2017). Change in job satisfaction negatively predicts change in retirement intentions. *Work, Aging and Retirement*, 3, 284–297. <https://doi.org/10.1093/workar/wax009>

AUTHOR BIOGRAPHIES

Hannes Zacher is Professor of Work and Organizational Psychology at the Institute of Psychology, Leipzig University. In his research program, he investigates aging at work, career development, and occupational well-being; proactivity, innovation, leadership, and entrepreneurship; and proenvironmental employee behavior.

Antje Schmitt is an Assistant Professor of Organizational Psychology and Rosalind Franklin Fellow at the University of Groningen. Her research focuses on self-regulation at work, affect regulation and self-efficacy, proactive and adaptive work behavior, and work events, well-being, and work motivation.

Nerina L. Jimmieson is a Professor at the School of Management, Queensland University of Technology. She conducts research on occupational stress and employee health and organizational change management. Her research is well supported by competitive national grants and funding from industry partners in the field of workplace health and safety regulation.

Cort W. Rudolph is an Assistant Professor of Industrial and Organizational Psychology at Saint Louis University. His research focuses on a variety of issues related to the aging workforce, including the application of life span development perspectives, well-being and work longevity, and ageism.

How to cite this article: Zacher H, Schmitt A, Jimmieson NL, Rudolph CW. Dynamic effects of personal initiative on engagement and exhaustion: The role of mood, autonomy, and support. *J Organ Behav*. 2019;40:38–58. <https://doi.org/10.1002/job.2277>