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Relationships between psychological contract breach and employee well-being and career-related behavior: The role of occupational future time perspective

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Summary

Relationships between psychological contract breach and employee well-being and career-related behavior cannot sufficiently be explained by social exchange and reciprocity theories, yet the alternative mechanisms underlying these associations are currently not well understood. Based on the psychological contract perspective on careers, the goal of this study was to examine indirect effects of psychological contract breach on emotional engagement, emotional exhaustion, and career-related behavior through two dimensions of occupational future time perspective (i.e., focus on opportunities and focus on limitations). Data came from 405 employees in Australia, who responded to three surveys across 12 months. Results showed that psychological contract breach had indirect effects on emotional engagement and exhaustion through focus on opportunities and focus on limitations, respectively, and on career-related behavior through focus on opportunities. Another mechanism, psychological contract violation, was only related to employees' organizational deviance. These findings highlight the important role of occupational future time perspective dimensions as employees' evaluations of future career-related opportunities and limitations. These evaluations may change in response to psychological contract breach and, in turn, might impact on employee well-being and career-related behavior.

KEYWORDS

careers, occupational future time perspective, psychological contract, well-being

1 | INTRODUCTION

The term “psychological contract” refers to employees' beliefs regarding the mutual obligations between themselves and their organization (Rousseau, 1995). Numerous studies have shown that psychological contract breach—employees' perception that their organization has *not* fulfilled its obligations (Morrison & Robinson, 1997)—is negatively related to favorable job attitudes and performance (Zhao, Wayne, Glibkowski, & Bravo, 2007). These associations have typically been

explained using social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). These theories suggest that employees who experienced breach have more negative thoughts and feelings about their organization and, in turn, engage in behaviors to harm it. Indeed, research shows that breach is positively related to psychological contract violation (i.e., negative organization-focused emotions, such as anger; Robinson & Rousseau, 1994) and counterproductive work behavior (via revenge cognitions; Bordia, Restubog, & Tang, 2008).

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Although relationships between psychological contract breach and job attitudes and performance are well understood, associations between breach and employee-focused outcomes, such as well-being and career-related behavior, cannot sufficiently be explained by social exchange and reciprocity theories (Deng, Coyle-Shapiro, & Yang, 2018). Reductions in well-being and career-related behavior after breach do not reflect retaliation against the organization. Instead, these outcomes involve harm to employees themselves, as they do not feel well or are unable to make progress in their careers. A few studies have used conservation of resources theory (Hobfoll, 1989) to explain links of breach with employee well-being (e.g., Costa & Neves, 2017; Gakovic & Tetrick, 2003) and innovation (Kiazad, Seibert, & Kraimer, 2014). However, these studies did not examine specific mechanisms underlying these relationships.

In this study, we use the psychological contract perspective on careers (Baruch & Rousseau, 2019) as an overarching theoretical framework, because it explains the processes that transmit psychological contract breach into employee well-being and career-related behavior. This perspective suggests that the experience of breach can lead employees to re-evaluate their broader career goals, which, in turn, influences their well-being and career-related behavior (Baruch & Rousseau, 2019). Accordingly, the goal of this study is to examine two dimensions of occupational future time perspective—focus on opportunities and focus on limitations—as career goal-related mechanisms that explain relationships between psychological contract breach and emotional engagement, emotional exhaustion, and career-related behavior.

Focus on opportunities describes how many goals, options, and possibilities employees perceive in their future career, whereas *focus*

on limitations entails their beliefs regarding constraints and restrictions in their future career (Rudolph, Kooij, Rauvola, & Zacher, 2018; Zacher & Frese, 2009). *Emotional engagement* and *exhaustion* are two important and complementary indicators of high and low occupational well-being, respectively (Bakker & Demerouti, 2017; Maslach, Schaufeli, & Leiter, 2001). *Career-related behavior* involves employees' efforts to develop themselves and progress in their careers (Welbourne, Johnson, & Erez, 1998). We decided to focus on these constructs based on the psychological contract perspective on careers. As noted by Baruch and Rousseau (2019), “An important but less frequently studied aspect of careers is the adjustment of individual career goals as a function of experience, and the effects of this adjustment on individual well-being and career-related behavior” (p. 16). Our conceptual model is shown in Figure 1.

Our study contributes to theory development in three important ways. First, based on the novel psychological contract perspective on careers (Baruch & Rousseau, 2019), we investigate associations between psychological contract breach and well-being and career-related behavior. Our study thereby advances psychological contract theory, which has traditionally focused on reciprocity and retaliation against the organization (Griep & Vantilborgh, 2018), by examining whether breach may also be associated with harm to employees (i.e., reduced well-being and career-related behavior). Second, we extend psychological contract theory by investigating two career goal-related mechanisms—focus on opportunities and limitations—that may explain the associations between breach and well-being and career-related behavior. Psychological contract theory has focused on how the cognitive evaluation of breach leads to the rather short-term emotional reaction of psychological contract violation and, in turn,

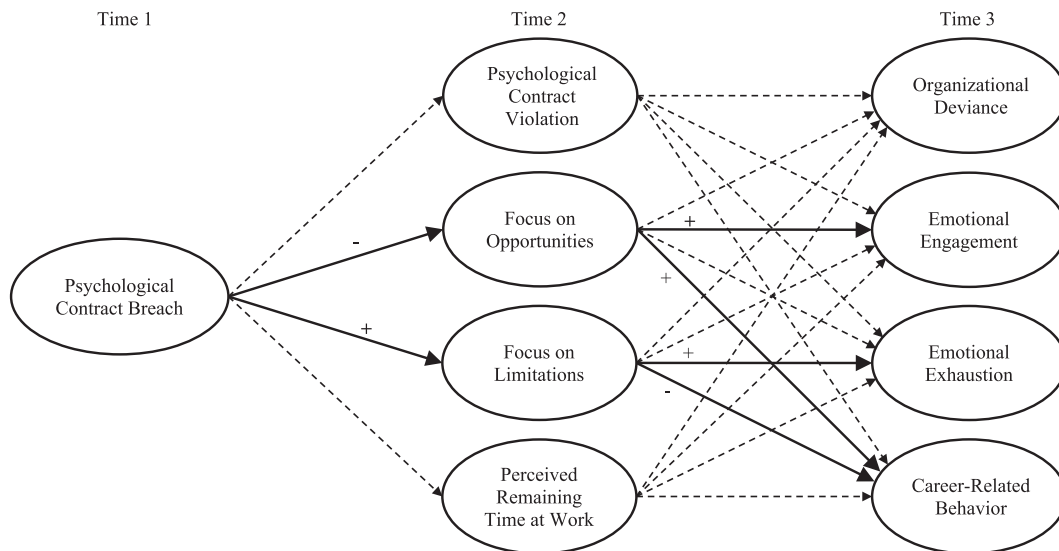


FIGURE 1 Conceptual model. Note. Solid arrows represent hypothesized relationships of psychological contract breach with emotional engagement, emotional exhaustion, and career-related behavior via focus on opportunities and focus on limitations, respectively. Dashed arrows represent effects of and effects on control variables (i.e., psychological contract violation and perceived remaining time) as well as the exploratory outcome variable (i.e., organizational deviance). For reasons of clarity, the control variables age, gender, education, as well as baseline measures of Time 2 and Time 3 variables and direct effects of psychological contract breach on the outcome variables are not shown

reciprocal behavior (Bordia et al., 2008). Consistent with the psychological contract perspective on careers (Baruch & Rousseau, 2019), we argue that breach can additionally cast a shadow on employees' long-term career goals and plans, which is reflected by a lower focus on opportunities and a higher focus on limitations. We further extend psychological contract theory by proposing that these dimensions of occupational future time perspective better explain well-being and career-related behavior than violation, whereas violation should better explain employees' organizational deviance than occupational future time perspective. Organizational deviance involves negative behavior toward the organization, such as intentionally arriving late for work or avoiding work (Aquino, Lewis, & Bradfield, 1999). Finally, theorizing on occupational future time perspective has so far focused on job demands and job resources as antecedents and on job attitudes and job performance as consequences (Henry, Zacher, & Desmette, 2017; Rudolph et al., 2018). By examining breach as a predictor and well-being and career-related behavior as outcomes of occupational future time perspective, we advance theorizing on the nomological net and utility of this form of future-related cognition in the context of work (Kooij, Kanfer, Betts, & Rudolph, 2018) and careers (Fasbender, Wohrmann, Wang, & Klehe, 2019).

2 | THEORETICAL BACKGROUND AND DEVELOPMENT OF HYPOTHESES

The psychological contract perspective on careers (Baruch & Rousseau, 2019) suggests that a key mechanism linking psychological contracts, well-being, and career-related behavior are employees' goals (i.e., internal representations of desired states; Austin & Vancouver, 1996). In particular, changes in career goals are assumed to both influence and be influenced by psychological contract breach. On the one hand, career goals serve as subjective standards against which employees evaluate their own and their organization's contributions (Rousseau, Hansen, & Tomprou, 2018). For instance, employees might conclude that their assignment to a challenging project does, or does not, help them achieve their career goals. This evaluation, in turn, may result in psychological contract breach (or its opposite, fulfillment). On the other hand, the psychological contract perspective on careers suggests that, once breach or fulfillment has occurred, employees will re-evaluate and possibly change their career goals. According to Baruch and Rousseau (2019), "Career development means that the experiences individuals have at work foster both skill building as well as information gathering with respect to present and future opportunities" (p. 43). For example, breach might lead an employee to the conclusion that they have few work-related opportunities in their future. In contrast, fulfillment is likely to lead to more positive beliefs regarding future opportunities. Thus, the state of their psychological contract signals to employees how many and which of their career goals they still might be able to realize, with potential implications for their well-being and career-related behavior.

Only a few studies have examined associations between psychological contract breach and well-being and career-related behavior. An early cross-sectional study found that breach was positively related to both emotional exhaustion and job dissatisfaction (Gakovic & Tetrick, 2003). Another cross-sectional study found that psychological contract fulfillment was positively associated with job engagement and mental health (Parzefall & Hakanen, 2010). A three-wave study demonstrated a negative relationship of breach with job engagement and a positive relationship with emotional exhaustion (Chambel & Oliveira-Cruz, 2010). More recently, a two-wave study found a positive link between breach and emotional exhaustion, which was weaker when employees' forgiveness cognitions were high (Costa & Neves, 2017). Finally, two experience sampling studies suggested that breach is related to a perceived loss of resources, which, in turn, is related to negative emotions and strain (Achnak, Griep, & Vantilborgh, 2018).

With regard to career-related behavior, a cross-sectional study showed that individual career management behavior and perceived organizational career management help are positively associated with psychological contract fulfillment (Sturges, Conway, Guest, & Liefoghe, 2005). A qualitative study explored how junior researchers change their career-related behavior in response to psychological contract breach (Lam & de Campos, 2015). Results suggested that junior researchers involved in collaborative research with senior professors reacted to breach by increasing their investment in their current jobs. In contrast, junior researchers in more transactional relationships reacted to breach by proactively shaping their careers toward greater independence. Overall, this review of the literature shows that, although direct links of psychological contract breach with well-being and career-related behavior have been shown, no research has addressed the potential role of career goal-related mechanisms.

2.1 | Focus on opportunities and focus on limitations as mediators

Based on the psychological contract perspective on careers, and its key proposition regarding the centrality of career goals (Baruch & Rousseau, 2019), we argue that psychological contract breach is negatively related to focus on opportunities and positively related to focus on limitations. These assumptions are theoretically supported by an adaptive process described by Baruch and Rousseau (2019), wherein experiences of breach should influence employees to re-evaluate their future career goals and plans. Employees who believe that their organization has breached the psychological contract perceive that the organization has failed to provide them with promised resources (e.g., promotions and training) necessary to achieve their career goals. Importantly, we argue that this assumption holds for career goals both within and beyond one's current organization. The reason for this is that not obtaining career resources from one's current organization should thwart career goal achievement also in other organizations. An

employee who did not receive a promised promotion should be less likely to believe that they can obtain higher pay in their current or in another organization. Accordingly, they should be more likely to decrease their career aspirations and to perceive increased constraints in their future. These reduced aspirations and perceived constraints regarding career goals are captured by a lower focus on opportunities and a higher focus on limitations, respectively (Zacher & Frese, 2011).

In contrast, employees who believe that their organization has fulfilled its economic or socioemotional obligations perceive that the organization has provided them with resources that help them pursue and attain their career goals, both within and possibly outside of the current organization (Baruch & Rousseau, 2019). For instance, training promised by and received in one's current organization should be important for the achievement of career goals both in the current organization and after a potential change (e.g., to obtain a supervisory position). Thus, these employees should be more likely to hold positive expectations (i.e., focus on opportunities) and less likely to perceive constraints in their future career (i.e., focus on limitations).

These theoretical assumptions are supported by some empirical research on psychological contract fulfillment. In a study with older workers (Bal, Jansen, van der Velde, de Lange, & Rousseau, 2010), psychological contract fulfillment regarding career development (e.g., mentoring) was positively related to an overall score of general future time perspective (i.e., not focused on the employment context). Another study with workers from different age groups found that both economic and developmental psychological contract fulfillment related positively to future time perspective (Bal, de Lange, Zacher, & van der Heijden, 2013).

Based on theorizing on the emotional and motivational benefits of positive future thinking (e.g., Karniol & Ross, 1996; Oettingen & Mayer, 2002; Schneider, 2001), we further argue that focus on opportunities is positively related to both emotional engagement and career-related behavior. In particular, theories on approach and avoidance tendencies, such as possible selves theory (Markus & Nurius, 1986) and regulatory focus theory (Higgins, 1997), suggest that people who anticipate positive future outcomes (i.e., approach tendency) are more likely to use active strategies to achieve their goals and to experience positive emotions during goal pursuit. Employees with a high focus on opportunities think positively about their future at work, perceive their occupational future as full of possibilities, and concentrate on the goals, plans, and options that they can (still) pursue in their future (Zacher & Frese, 2009). They have an approach tendency or promotion orientation toward their career (Zacher & de Lange, 2011). Accordingly, theorizing on the emotional and motivational benefits of positive future thinking, and especially on approach tendencies, suggests that focus on opportunities provides employees with an energizing resource that should benefit their emotional engagement and career-related behavior.

In support of these assumptions, Schmitt, Zacher, and de Lange (2013) showed that focus on opportunities was positively

related to general and daily job engagement. Additionally, a two-wave study showed that focus on opportunities positively predicted job engagement 2 years later, controlling for baseline levels of job engagement and trait optimism (Schmitt, Gielnik, Zacher, & Klemann, 2013). A study with older job seekers found that focus on opportunities is positively related to job search intensity (Zacher, 2013). Finally, a meta-analysis by Rudolph et al. (2018) reported positive associations of focus on opportunities with job engagement and achievement motivation.

In combination, our theoretical arguments outlined above suggest that psychological contract breach has negative indirect effects on emotional engagement and career-related behavior through focus on opportunities. Consistent with the assumption of two distinct affect systems and the notion of affect symmetries (i.e., positive experiences predict positive outcomes, and negative experiences predict negative outcomes; Bono, Glomb, Shen, Kim, & Koch, 2013; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003), we expect focus on opportunities to relate to emotional engagement, but not to exhaustion.

Hypothesis 1. Psychological contract breach has negative indirect effects on (a) emotional engagement and (b) career-related behavior through focus on opportunities.

Regarding focus on limitations, we expect a positive association with emotional exhaustion and a negative association with career-related behavior. Employees with a high focus on limitations take a pessimistic perspective on their future at work and perceive it as full of constraints and restrictions (Zacher, 2013). They have an avoidance tendency or prevention orientation toward their career (Zacher & de Lange, 2011). According to theorizing on negative thinking about the future (Karniol & Ross, 1996) and, in particular, on avoidance tendencies (Higgins, 1997; Markus & Nurius, 1986), people who anticipate negative future outcomes are less likely to engage in active goal pursuit and more likely to experience negative emotions and a threat to their resources. Similarly, theorizing on the development of depression proposes that negative thinking about one's self, future, and the world in general results in reduced well-being and motivation (Beck, 1967). So far, no studies have examined the emotional, motivational, and behavioral consequences of focus on limitations (Henry et al., 2017; Rudolph et al., 2018). Based on our theoretical assumptions, we hypothesize that psychological contract breach has a positive indirect effect on emotional exhaustion and a negative indirect effect on career-related behavior through focus on limitations. Consistent with the notion of affect symmetries, we expect focus on limitations to relate to the negative outcome of emotional exhaustion, but not to engagement.

Hypothesis 2. Psychological contract breach has (a) a positive indirect effect on emotional exhaustion and (b) a negative indirect effect on career-related behavior through focus on limitations.

3 | METHOD

3.1 | Participants and procedure

Data for this study came from a panel of $N = 405$ full-time employees in Australia, including 208 men (51.36%) and 197 women (48.64%). Their average age (at Time 1 [T1]) was 48.39 years ($SD = 10.85$; range = 20–69 years). In terms of education, one participant had not completed high school (0.25%), 127 (31.36%) had completed high school, 100 (24.69%) held a technical college degree, 109 (26.91%) held an undergraduate degree, and 67 (16.54%) held a postgraduate degree (one respondent did not report their education). On average (at T1), participants had worked in their current job for 11.92 years ($SD = 11.54$). Participants came from all Australian states and territories and worked in a range of jobs and industries. The median job level was 4 ($N = 99$) on a 7-point scale ranging from 1 = *entry level position* to 7 = *executive level* (6 missings). Regarding industries, 20 (4.94%) participants worked in the primary sector (i.e., agriculture), 58 (14.32%) worked in the secondary sector (i.e., manufacturing and blue-collar jobs), and 326 (80.49%) worked in the tertiary sector (i.e., service and white-collar jobs).

This study was approved by the University of Queensland's Behavioural and Social Sciences Ethical Review Committee (No. 2011001347, Study Title: Intergenerational Demands as a Double-Edged Sword in the Work Context). The data were collected as part of a larger longitudinal data collection effort. Several articles based on the same dataset, but with completely different research questions, have been published (Gielnik, Zacher, & Wang, 2018; Zacher, 2014a, 2014b; Zacher & Rudolph, 2018; Zacher & Rudolph, 2019). Overlapping variables between the current manuscript and previous studies are age, gender, and education (i.e., control variables), as well as T1 perceived remaining time and T2 emotional engagement and exhaustion (i.e., baseline control variables). A panel management and online research company was commissioned to recruit participants. This company manages the largest research-only consumer and business panels in Australia and operates in accordance with the ISO20252/26362 standards for market, opinion, and social research. The company recruits individuals for its pool initially offline (i.e., via telephone, mail, or in person) and on an invitation-only basis to avoid participation of professional online survey respondents. Study participants receive reward points, which can later be redeemed for cash or gift certificates.

At first, 27,211 email invitations were sent to potential participants in the company's database. However, a large number of these emails "bounced back" or requests were ignored. Of the 4,299 persons who clicked the survey link and provided basic demographic information, 2,116 indicated that they were either retired, unemployed, or working part time and were excluded from participation. The remaining 2,183 people reported working full time and were allowed to participate in the study. Out of these 2,183 persons who qualified, 1,930 participants provided complete information on the study variables at T1 (qualified response rate = 88.41%). T1 participants were re-contacted by the company 6 months following T1 and invited to participate in a second follow-up survey (T2). In total, $N = 692$ complete surveys were

collected at T2 (T1–T2 response rate = 35.85%). Finally, T2 participants were re-contacted by the company 6 months following T2 and invited to participate in a third follow-up survey (T3). In total, $N = 405$ participants provided complete information on the substantive variables in the T1, T2, and T3 surveys (T2–T3 response rate = 58.52%). Comparing the final panel of $N = 405$ to the initially qualified sample of $N = 2,183$ yields an effective response rate of 18.55%. Moreover, 20.98% of respondents who completed T1 completed all three waves. These rates are lower than those observed on average in cross-sectional surveys in the organizational sciences (52.70%; see Baruch & Holtom, 2008), but they are to some extent consistent with response rates noted in longitudinal research in organizational behavior and industrial psychology (e.g., Goodman & Blum, 1996, report that attrition rates range from 0% to 88%, with a median = 27%). The analyses including education and job level as covariates are based on $N = 404$ and $N = 399$, respectively, given that these questions were not answered by a small subset of respondents.

Of the $N = 405$ participants in our study, $n = 390$ were working for the same organization at all three time points, whereas $n = 15$ changed organizations. The "organizational changers" did not significantly differ from the "organizational stayers" in the substantive study variables, and the results reported below (and our inferences based on them) do not change substantially when the "organizational changers" are excluded (see online appendix Part A, Tables A1 and A2, for full results; <https://osf.io/gyb5z>).

3.2 | Attrition analyses

We followed the suggestions of Goodman and Blum (1996) and directly modeled patterns of sample attrition across time. Complete details for these models are provided in our online appendix (Part B, Tables B1–B3 and Figure B1). In summary, although it appears that some systematic effects of attrition occurred (i.e., compared with "T1, T2, and T3 panel responders," "T1 only responders" were more likely to be younger and female), its impact is not of great magnitude (i.e., as indexed by the small $R^2 = .009$ observed in a multinomial logistic regression model) and likewise does not appreciably influence observed means or variances and has no appreciable bearing on the structure of relationships among our focal variables. Accordingly, we are confident that selective attrition is not unduly influencing the conclusions we draw herein.

3.3 | Measures

Unless noted otherwise, all items were answered on 5-point Likert-type response scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

3.3.1 | Psychological contract breach

We measured psychological contract breach at T1 using a five-item scale that taps employees' perceptions of how well their organization

had fulfilled its obligations (Robinson & Morrison, 2000). An example item is “I have not received everything promised to me in exchange for my contributions.” Cronbach's alpha was $\alpha = .91$ at T1.

3.3.2 | Psychological contract violation

Theory suggests that psychological contract violation constitutes a key mechanism in relationships between psychological contract breach and employee attitudes and behavior (Morrison & Robinson, 1997). Accordingly, we control for it in our analyses (see Figure 1). At T1 and T2, psychological contract violation was assessed with a four-item scale (Robinson & Morrison, 2000). An example item is “I feel betrayed by my organization.” Cronbach's alphas were $\alpha = .97$ at both T1 and T2.

3.3.3 | Occupational future time perspective

Zacher (2013) conceptually and empirically distinguished focus on opportunities and focus on limitations from employees' perception of the length of time they have left in their careers (i.e., perceived remaining time). We included perceived remaining time as a control variable in our analyses to show that focus on opportunities and limitations are associated with well-being and career-related behavior above and beyond this basic appraisal (see Figure 1). At T1 and T2, focus on opportunities (FOO), focus on limitations (FOL), and perceived remaining time (PRT) were assessed with eight items from Zacher (2013). Example items are “Many opportunities await me in my occupational future,” “As I get older, I begin to experience time in my occupational future as limited,” and “Most of my occupational life lies ahead of me,” respectively. Alphas were acceptable at both T1 ($\alpha_{\text{FOO}} = .93$, $\alpha_{\text{FOL}} = .90$, $\alpha_{\text{PRT}} = .85$) and T2 ($\alpha_{\text{FOO}} = .94$, $\alpha_{\text{FOL}} = .90$, $\alpha_{\text{PRT}} = .86$).

3.3.4 | Emotional engagement

At T2 and T3, emotional engagement was measured with the three highest loading items from the emotional engagement scale by Rich, LePine, and Crawford (2010). An example item is “I feel energetic at my job.” Alphas were $\alpha = .91$ at T2 and $\alpha = .93$ at T3.

3.3.5 | Emotional exhaustion

At T2 and T3, emotional exhaustion was measured with the three highest loading items from the scale by Maslach and Jackson (1981). An example item is “I feel burned out from my work.” The 5-point response scale ranged from 1 (*never*) to 5 (*all of the time*). Alphas were $\alpha = .92$ at both T2 and T3.

3.3.6 | Career-related behavior

At T2 and T3, career-related behavior was assessed with four items from the role-based performance scale (Welbourne et al., 1998). Participants were asked to rate how their supervisor would rate their behavior at work in the past 6 months. An example item is “Developing skills needed for your future career.” The response scale ranged from 1 (*needs much improvement*) to 5 (*excellent*). Alphas were $\alpha = .92$ at both T2 and T3.

3.3.7 | Organizational deviance

To contrast our propositions with assumptions in the psychological contract literature based on social exchange and reciprocity theories (i.e., breach leads to retaliation against the organization; Bordia et al., 2008), we further included employees' organizational deviance as an outcome. At T2 and T3, organizational deviance was measured with the four highest loading items from the scale by Aquino et al. (1999). Participants were asked to indicate the number of times they had performed the respective behaviors in the past 6 months. An example item is “Lied about the number of hours I worked.” The response scale ranged from 1 (*never*) to 5 (*more than 20 times*). Alphas were $\alpha = .79$ at T2 and $\alpha = .78$ at T3.

3.3.8 | Demographic variables

We assessed participants' age (in years), gender (1 = *male*, 2 = *female*), and education (ranging from 1 = *not completed high school* to 5 = *postgraduate degree*) as control variables. According to lifespan theory, age is related to occupational future time perspective (i.e., negatively related to focus on opportunities and perceived remaining time and positively related to focus on limitations; Cate & John, 2007). Research has shown gender differences in various indicators of well-being (Pinquart & Sörensen, 2001) and that education is positively associated with occupational future time perspective (Zacher & Frese, 2009). Finally, we noted significant correlations of age, gender, and education with our four focal outcome variables (see supplementary tables section of our online appendix, Table S1).

We conducted two exploratory analyses to test the sensitivity of our models to these covariates and other variables. Specifically, we specified models in which age, gender, and education were not controlled for and models in which we additionally controlled for job level (1 = *entry level* to 7 = *high-ranking executive*) and industry (1 = *primary sector*, 2 = *secondary sector*, 3 = *tertiary sector*). We included job level and industry, as research has demonstrated that time-related individual differences may operate differently across industries (Zhang, Wang, & Pearce, 2014).

3.4 | Analytical approach

Models were specified using the “lavaan” package for the R statistical computing environment (R Core Team, 2016; Rosseel, 2012). As a first step, we conducted confirmatory factor analyses (CFAs) and measurement equivalence analyses. Because of observed deviations from normality, a robust maximum likelihood estimator was used for all measurement models (Foldnes & Olsson, 2015). Reasonable model fit was assumed for comparative fit index (CFI) values greater than .90, root mean square error of approximation (RMSEA) values close to or below .06, and standardized root mean square residual (SRMR) values close to or below .08 (Browne & Cudeck, 1993; Hu & Bentler, 1999). Hu and Bentler (1999) additionally suggest a “combination rule” for absolute fit indices that should be favored as evidence for model fit in cases where both RMSEA and SRMR values simultaneously meet or exceed these cut-offs. To compare nested models, we computed scaled chi-square difference tests in line with Satorra and Bentler (2001).

Providing evidence for the equivalence of measurement models and factor loadings over time is necessary to ensure that the interpretation of constructs is valid across time points (Van de Schoot, Lugtig, & Hox, 2012). Thus, we considered the configural (i.e., free factor loadings) and factorial (i.e., invariant factor loadings) equivalence of our variables. In these models, we allowed the error terms of corresponding indicators to correlate over time.

To test our hypothesized model, we specified a single path analysis model (see Figure 1 for a simplified representation), in which T3 outcomes (i.e., emotional engagement, emotional exhaustion, career-related behavior, and organizational deviance) were simultaneously regressed onto T2 mediators (i.e., focus on opportunities, focus on limitations, psychological contract violation, and perceived remaining time) and psychological contract breach at T1. This model also (a) specified direct effects of T3 outcomes regressed onto T1 psychological contract breach; (b) controlled for lagged endogenous levels of T2 mediators (e.g., T2 psychological contract violation regressed onto T1 psychological contract violation) and T3 outcomes (e.g., T3 emotional engagement regressed onto T2 emotional engagement); and (c) controlled for age, education, and gender. As with the CFA models, we accounted for observed deviations from normality in the path analysis using a robust maximum likelihood estimator (Foldnes & Olsson, 2015), and the same scaled fit indices reported above were used to evaluate model fit. Note that controlling for time-lagged T1 levels of mediators and time-lagged T2 levels of outcomes makes this a “lagged endogenous change model” (Aickin, 2009; Finkel, 2008). Accordingly, the observed effects of predictors in these models can be interpreted in terms of their effect on *changes* in mediator variables from T1 to T2 and *changes* in outcome variables from T2 to T3. As it is not possible to use bootstrapping to estimate standard errors when using a robust estimator in “lavaan,” we applied the Monte Carlo method for assessing mediation (MCMAM; Preacher & Selig, 2012) with 10,000 resamples to compute appropriate confidence intervals (CIs) for each indirect effect.

4 | RESULTS

4.1 | Descriptive statistics, correlations, and dimensionality of study variables

Table 1 reports descriptive statistics and correlations among the substantive variables. A complete correlation table with all study variables is also available in the supplementary tables section of our online appendix (see Table S1). Complete results of the six CFAs to explore the fit of T1 measures to the data can also be found in the online appendix (Table S2). In summary of these analyses, the first model specified nine latent variables, corresponding to each of the nine variables depicted in Figure 1 and measured at T1. Comparing the fit of the nine-factor model ($\chi^2[398] = 962.647$, $p < .001$, CFI = .936, RMSEA = .065) with the fits of five alternative models with $\Delta\chi^2$ difference tests suggests that the nine-factor model provides optimal fit to the data.

4.2 | Measurement equivalence

A summary of the fit of the configural and factorial measurement equivalence analyses can be found in the online appendix (see Table S3). Upholding measurement equivalence, constraining the factor loadings to be equal across time in the factorial equivalence analyses did not substantially change the fit for occupational future time perspective ($\Delta\chi^2_{(8)} = 9.54$, $p = .30$), psychological contract violation ($\Delta\chi^2_{(4)} = 6.14$, $p = .19$), emotional engagement ($\Delta\chi^2_{(3)} = 7.09$, $p = .07$), emotional exhaustion ($\Delta\chi^2_{(3)} = 2.18$, $p = .54$), and organizational deviance ($\Delta\chi^2_{(4)} = 1.96$, $p = .74$). Factorial invariance was not upheld for career-related behavior ($\Delta\chi^2_{(4)} = 13.17$, $p = .01$); however, partial invariance was achieved by freeing the loadings of a single item at T2 and T3 (i.e., “Seeking out career opportunities”; $\Delta\chi^2_{(3)} = 2.32$, $p = .51$). Despite this, changes in CFI, RMSEA, and SRMR were lower than the recommended cut-off values of Δ CFI greater than $-.010$, Δ RMSEA smaller than $.015$, and Δ SRMR smaller than $.030$ (Chen, 2007; Cheung & Rensvold, 2002) for all variables. Overall, this suggests measurement equivalence across time.

4.3 | Hypothesis tests

Results of the path analysis model specified to test our hypotheses can be found in Table 2. This model had an acceptable fit to the data, $\Delta\chi^2_{(62)} = 233.27$, $p < .001$, CFI = .920, RMSEA = .083, SRMR = .053. Moreover, an appreciable amount of variance was explained in T2 mediators (i.e., psychological contract violation $R^2 = .64$, focus on opportunities $R^2 = .51$, focus on limitations $R^2 = .37$, perceived remaining time $R^2 = .54$) and T3 outcomes (emotional engagement $R^2 = .53$, emotional exhaustion $R^2 = .56$, organizational deviance $R^2 = .43$, career-related behavior $R^2 = .31$). Table 3 summarizes indirect, direct, and total effects to support our mediation tests.

TABLE 1 Descriptive statistics and correlations among substantive variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1. T1 PCB	2.53	0.87	(.91)																	
2. T1 PCV	2.04	1.06	.69	(.97)																
3. T2 PCV	2.09	1.08	.64	.79	(.97)															
4. T1 FOO	3.08	0.99	-.28	-.08	-.08	(.93)														
5. T2 FOO	3.03	0.93	-.30	-.16	-.14	.70	(.94)													
6. T1 FOL	3.20	0.96	.24	.23	.20	-.38	-.36	(.90)												
7. T2 FOL	3.21	0.94	.27	.23	.28	-.43	-.46	.54	(.90)											
8. T1 PRT	2.78	0.96	-.07	.07	.08	.68	.56	-.43	-.48	(.85)										
9. T2 PRT	2.75	0.92	-.14	-.02	.01	.57	.72	-.34	-.54	.71	(.86)									
10. T2 EE	3.85	0.82	-.28	-.31	-.38	.26	.31	-.14	-.14	.14	.13	(.91)								
11. T3 EE	3.83	0.88	-.20	-.24	-.29	.28	.31	-.17	-.15	.17	.13	.73	(.93)							
12. T2 EX	2.74	0.98	.28	.38	.40	.02	-.03	.11	.14	.07	.02	-.20	-.12	(.92)						
13. T3 EX	2.73	0.99	.25	.34	.34	.01	-.01	.18	.19	.06	.03	-.19	-.15	.73	(.92)					
14. T2 CRB	3.67	0.75	-.23	-.17	-.23	.25	.32	-.18	-.21	.16	.20	.42	.40	-.21	-.12	(.92)				
15. T3 CRB	3.68	0.73	-.22	-.12	-.18	.30	.34	-.19	-.16	.23	.22	.39	.42	-.03	.01	.55	(.92)			
16. T2 OD	1.20	0.45	.06	.25	.24	.06	.00	.16	.02	.12	.06	-.14	-.17	.17	.15	-.19	-.09	(.79)		
17. T3 OD	1.21	0.45	.07	.26	.27	.10	.06	.09	.02	.15	.13	-.19	-.19	.17	.14	-.14	-.08	.63	(.78)	

Note. N = 405. Reliability estimates (Cronbach's α), where available, are shown in parentheses along the diagonal. For $r_{xy} > |.108|, p < .05$. A complete correlation table is available in our online appendix. Abbreviations: CRB, career-related behavior; EE, emotional engagement; EX, emotional exhaustion; FOL, focus on limitation; FOO, focus on opportunities; OD, organizational deviance; PCB, psychological contract breach; PCV, psychological contract violation; PRT, perceived remaining time; T, time.

TABLE 2 Results of path model

Criterion	Predictor	B	SE _B	z	p	95% CI (lower)	95% CI (upper)	β
T2 focus on opportunities	T1 focus on opportunities	0.58	0.04	14.41	<.01	0.50	0.66	0.62
	T1 age	−0.01	0.00	−2.71	.01	−0.01	0.00	−0.10
	T1 gender	−0.07	0.06	−1.19	.23	−0.19	0.05	−0.04
	T1 education	0.04	0.03	1.37	.17	−0.02	0.09	0.04
	T1 psychological contract breach	−0.14	0.04	−3.58	<.01	−0.22	−0.06	−0.13
T2 focus on limitations	T1 focus on limitations	0.44	0.04	9.97	<.01	0.35	0.53	0.45
	T1 age	0.02	0.00	5.83	<.01	0.01	0.03	0.24
	T1 gender	0.02	0.07	0.21	.83	−0.13	0.16	0.01
	T1 education	−0.01	0.03	−0.25	.81	−0.07	0.06	−0.01
	T1 psychological contract breach	0.19	0.04	4.57	<.01	0.11	0.28	0.18
T2 perceived remaining time	T1 perceived remaining time	0.57	0.04	13.83	<.01	0.49	0.65	0.59
	T1 age	−0.02	0.00	−5.34	<.01	−0.02	−0.01	−0.22
	T1 gender	0.06	0.06	0.91	.37	−0.07	0.18	0.03
	T1 education	−0.02	0.03	−0.74	.46	−0.07	0.03	−0.02
	T1 psychological contract breach	−0.12	0.04	−3.32	<.01	−0.19	−0.05	−0.12
T2 psychological contract violation	T1 psychological contract violation	0.66	0.05	12.81	<.01	0.56	0.76	0.65
	T1 age	−0.01	0.00	−2.06	.04	−0.01	0.00	−0.06
	T1 gender	−0.04	0.06	−0.68	.50	−0.17	0.08	−0.02
	T1 education	0.01	0.03	0.21	.84	−0.05	0.07	0.01
	T1 psychological contract breach	0.22	0.06	3.84	<.01	0.11	0.34	0.18
T3 emotional engagement	T2 emotional engagement	0.71	0.05	14.06	<.01	0.61	0.81	0.68
	T1 age	0.00	0.00	0.89	.37	0.00	0.01	0.04
	T1 gender	0.10	0.06	1.60	.11	−0.02	0.22	0.06
	T1 education	0.01	0.03	0.54	.59	−0.04	0.07	0.02
	T1 psychological contract breach	0.06	0.05	1.22	.22	−0.04	0.17	0.07
	T2 psychological contract violation	−0.03	0.04	−0.87	.38	−0.11	0.04	−0.04
	T2 focus on opportunities	0.15	0.04	3.85	<.01	0.07	0.22	0.16
	T2 focus on limitations	−0.03	0.04	−0.77	.44	−0.11	0.05	−0.04
	T2 perceived remaining time	−0.05	0.04	−1.30	.20	−0.12	0.03	−0.05
T3 emotional exhaustion	T2 emotional exhaustion	0.70	0.04	18.16	<.01	0.62	0.77	0.69
	T1 age	−0.01	0.00	−1.26	.21	−0.01	0.00	−0.06
	T1 gender	0.06	0.06	0.88	.38	−0.07	0.18	0.03
	T1 education	0.02	0.03	0.63	.53	−0.04	0.08	0.02
	T1 psychological contract breach	0.05	0.06	0.90	.37	−0.06	0.16	0.04
	T2 psychological contract violation	0.00	0.04	−0.09	.93	−0.08	0.07	0.00
	T2 focus on opportunities	0.06	0.04	1.46	.15	−0.02	0.13	0.05
	T2 focus on limitations	0.14	0.04	3.88	<.01	0.07	0.22	0.14
	T2 perceived remaining time	0.01	0.04	0.31	.76	−0.06	0.09	0.01

TABLE 2 (Continued)

Criterion	Predictor	B	SE _B	z	p	95% CI (lower)	95% CI (upper)	β
T3 career-related behavior	T2 career-related behavior	0.44	0.04	10.58	<.01	0.36	0.52	0.46
	T1 age	0.00	0.00	0.84	.40	0.00	0.01	0.05
	T1 gender	0.02	0.06	0.29	.77	-0.10	0.13	0.01
	T1 education	0.01	0.03	0.31	.76	-0.04	0.06	0.01
	T1 psychological contract breach	-0.04	0.05	-0.90	.37	-0.13	0.05	-0.05
	T2 psychological contract violation	-0.01	0.04	-0.31	.76	-0.09	0.06	-0.02
	T2 focus on opportunities	0.15	0.04	4.41	<.01	0.09	0.22	0.20
	T2 focus on limitations	0.03	0.04	0.89	.38	-0.04	0.10	0.04
	T2 perceived remaining time	0.02	0.03	0.50	.62	-0.05	0.08	0.02
T3 organizational deviance	T2 organizational deviance	0.56	0.11	4.92	<.01	0.34	0.78	0.56
	T1 age	0.00	0.00	-1.96	.05	-0.01	0.00	-0.10
	T1 gender	-0.05	0.03	-1.35	.18	-0.12	0.02	-0.05
	T1 education	0.04	0.02	2.30	.02	0.01	0.07	0.10
	T1 psychological contract breach	-0.04	0.03	-1.32	.19	-0.09	0.02	-0.07
	T2 psychological contract violation	0.06	0.02	2.46	.01	0.01	0.10	0.14
	T2 focus on opportunities	-0.01	0.02	-0.72	.47	-0.04	0.02	-0.02
	T2 focus on limitations	0.02	0.02	1.21	.23	-0.01	0.05	0.04
	T2 perceived remaining time	0.03	0.02	1.88	.06	0.00	0.07	0.07

Note. $N = 404$. T = time.

According to Hypothesis 1a, psychological contract breach has a negative indirect effect on emotional engagement through focus on opportunities. We observed a significant negative association between T1 psychological contract breach and T2 focus on opportunities ($B = -.14$, $SE = .04$, $p < .001$) and a significant positive association between T2 focus on opportunities and T3 emotional engagement ($B = .15$, $SE = .04$, $p < .001$). Supporting Hypothesis 1a (see Table 3), a significant indirect effect of psychological contract breach on emotional engagement through focus on opportunities ($B_{\text{indirect}} = -.021$, 95% CI: -0.039 to -0.007) was observed.

Hypothesis 1b states that psychological contract breach has a negative indirect effect on career-related behavior through focus on opportunities. In addition to the negative relationship between T1 psychological contract breach and T2 focus on opportunities reported in our test of Hypothesis 1a, we observed a significant positive relationship between T2 focus on opportunities and T3 career-related behavior ($B = .15$, $SE = .04$, $p < .001$). In support of Hypothesis 1b (see Table 3), psychological contract breach had a significant indirect effect on career-related behavior through focus on opportunities ($B_{\text{indirect}} = -.022$, 95% CI: -0.039 to -0.009).

According to Hypothesis 2a, psychological contract breach has a positive indirect effect on emotional exhaustion through focus on limitations. We observed a significant positive relationship between T1 psychological contract breach and T2 focus on limitations ($B = .19$, $SE = .04$, $p < .001$), as well as a significant positive relationship

between T2 focus on limitations and T3 emotional exhaustion ($B = .14$, $SE = .04$, $p < .001$). Supporting Hypothesis 2a (see Table 3), we found a significant indirect effect of psychological contract breach on emotional exhaustion through focus on limitations ($B_{\text{indirect}} = .028$, 95% CI: 0.012 to 0.048).

Hypothesis 2b states that psychological contract breach has a negative indirect effect on career-related behavior through focus on limitations. Although, as described in our test of Hypothesis 2a, we found a positive association between T1 psychological contract breach and T2 focus on limitations, we did not find a significant association between T2 focus on limitations and T3 career-related behavior ($B = .03$, $SE = .04$, $p = .885$). Thus, our hypothesis was not supported, as the indirect effect of psychological contract breach on career-related behavior through focus on limitations was not significant ($B_{\text{indirect}} = .006$, 95% CI: -0.007 to 0.021).

In addition to the results of the hypothesis tests, we further found significant effects of T1 psychological contract breach on T2 psychological contract violation ($B = .22$, $SE = .06$, $p < .001$) and T2 perceived remaining time ($B = -.12$, $SE = .04$, $p < .001$). T2 violation, perceived remaining time, and focus on limitations did not significantly predict T3 emotional engagement and T3 career-related behavior, and T2 violation, perceived remaining time, and focus on opportunities did not significantly predict T3 emotional exhaustion. Furthermore, only T2 violation significantly predicted T3 organizational deviance ($B = .06$, $SE = .02$, $p = .013$; see Table 2) and there was a significant indirect

TABLE 3 Results of indirect effect analyses

T1 psychological contract breach → T2 focus on opportunities → T3 emotional engagement			
	Estimate	95% CI (lower)	95% CI (upper)
Indirect effect	−0.021	−0.039	−0.007
Direct effect	0.064	−0.039	0.168
Total effect	0.044	−0.056	0.144
T1 psychological contract breach → T2 focus on limitations → T3 emotional exhaustion			
Indirect effect	0.028	0.012	0.048
Direct effect	0.050	−0.058	0.159
Total effect	0.078	−0.027	0.183
T1 psychological contract breach → T2 focus on opportunities → T3 career-related behavior			
Indirect effect	−0.022	−0.039	−0.009
Direct effect	−0.042	−0.134	0.049
Total effect	−0.064	−0.155	0.027
T1 psychological contract breach → T2 focus on limitations → T3 career-related behavior			
Indirect effect	0.006	−0.007	0.021
Direct effect	−0.042	−0.134	0.049
Total effect	−0.036	−0.127	0.054
T1 psychological contract breach → T2 psychological contract violation → T3 organizational deviance			
Indirect effect	0.013	0.002	0.026
Direct effect	−0.036	−0.089	0.017
Total effect	−0.023	−0.071	0.024

Note. The Monte Carlo method for assessing mediation (MCMAM) with 10,000 resamples was used to derive confidence intervals. Abbreviation: CI, confidence interval.

effect of psychological -contract breach on organizational deviance through violation ($B_{\text{indirect}} = .013$, 95% CI: 0.002 to 0.026; see Table 3).

4.4 | Exploratory analyses

We additionally ran a series of exploratory analyses to (a) check the sensitivity of our models to the inclusion and exclusion of covariates, (b) consider an “overall” occupational future time perspective score (i.e., average of focus on opportunities, reverse-scored focus on limitations, and perceived remaining time), and (c) contrast our findings against a model with only T2 psychological contract violation as a mediator. Complete descriptions and results of these analyses can be found in the online appendix. In summary, our models were (a) not sensitive to the inclusion and exclusion of covariates (Tables C1–C3). Moreover, the results were similar when (b) considering “overall” occupational future time perspective (Table D1) and (c) only T2 psychological contract breach as a mediator (Table E1).

5 | DISCUSSION

We found that psychological contract breach is negatively related to focus on opportunities and perceived remaining time and positively

related to focus on limitations. Thus, consistent with the psychological contract perspective on careers (Baruch & Rousseau, 2019), breach appears to be a work experience that signals to employees that their organization did not provide them with resources necessary for their future career development. We argued that this perception, in turn, reduces employees' career aspirations and increases their perceived career constraints. Our findings advance psychological contract theory, which has traditionally focused on short-term emotional reactions (i.e., violation) and reciprocal behavior, by demonstrating that breach is also associated with employees' long term-career goals and plans as reflected by the three dimensions of occupational future time perspective. We also extend the nomological net of occupational future time perspective, which has so far focused primarily on job demands and resources as antecedents (Henry et al., 2017). We showed that breach experienced within employees' current organization is associated with their broader career-related expectations, which may involve career development either within or outside of the current organization.

Consistent with expectations, we additionally found that focus on opportunities was positively related to emotional engagement and career-related behavior. These results support theorizing on the emotional and motivational benefits of positive thinking about the future and on approach tendencies (Karniol & Ross, 1996). Focus on limitations was positively related to emotional exhaustion but, contrary to expectations, not to career-related behavior. The former finding is

consistent with theorizing on avoidance tendencies and depression, according to which negative thinking about the future leads to reduced well-being (Beck, 1967; Higgins, 1997). Regarding the latter finding, the notion of affect symmetries (e.g., negative experiences are more likely to be associated with negative outcomes; Bono et al., 2013) may explain why focus on limitations is not necessarily associated with employees' career-related behavior.

Finally, we argued and showed that associations between psychological contract breach and the employee-focused outcomes of well-being and career-related behavior cannot sufficiently be explained by psychological contract violation, which social exchange and reciprocity theories assume to be a key mechanism between breach and reciprocal behavior (Robinson & Morrison, 2000). Instead, based on the psychological contract perspective on careers (Baruch & Rousseau, 2019), we hypothesized and found that breach had indirect effects on well-being and career-related behavior through focus on opportunities and limitations. To contrast our focal analyses on the "occupational future time perspective pathways" with the "social exchange/reciprocity pathway," we additionally included psychological contract violation and employees' organizational deviance in our model. Consistent with social exchange and reciprocity theories as well as previous research (Zhao et al., 2007), breach had a positive indirect effect on organizational deviance only through violation, whereas violation was not significantly related to employee well-being and career-related behavior. Moreover, focus on opportunities and limitations were not significantly associated with organizational deviance.

5.1 | Theoretical and practical implications

Our findings contribute to theory development in at least three important ways. First, based on the psychological contract perspective on careers (Baruch & Rousseau, 2019), we advance theorizing on potential mechanisms underlying associations between psychological contract breach and well-being and career-related behavior. Social exchange and reciprocity theories cannot sufficiently explain the links between breach and these employee-focused outcomes, because they do not involve employees retaliating against their organization. Instead, we proposed that the experience of breach (or fulfillment) is linked to employees' perceptions that their organization did not (or did) provide them with resources relevant to the pursuit and attainment of future career goals (Baruch & Rousseau, 2019). We argued that focus on opportunities and limitations constitute two career goal-related mechanisms that tap these perceptions and showed that breach had indirect effects on well-being and career-related behavior through these dimensions of occupational future time perspective. Nevertheless, we acknowledge the possibility that these associations may be even better explained by a more general goal striving framework including approach and avoidance tendencies (e.g., regulatory focus theory; Higgins, 1997). In other words, it could be that the approach and avoidance components of focus on opportunities and focus on limitations, respectively, are more relevant as

mechanisms than the future time perspective component. That said, researchers have argued that particularly the latter component plays a key role for well-being and career-related behavior (Fasbender et al., 2019; Schneider, 2001). Future theory development efforts could attempt to better integrate the perceived remaining time dimension, which is central to the notion of occupational future time perspective (Zacher & Frese, 2009), with a more general goal striving framework including approach and avoidance tendencies to guide future research on associations between psychological contract breach and employee-focused outcomes.

Second, we contribute to theorizing on the potential antecedents and consequences of occupational future time perspective (Rudolph et al., 2018) by showing that psychological contract breach is associated with focus on opportunities, focus on limitations, and perceived remaining time. Previous theorizing on occupational future time perspective has mainly considered "regular" job demands and resources, especially job complexity and autonomy, as antecedents, and empirical studies have found rather weak associations (Henry et al., 2017; Rudolph et al., 2018). Our findings suggest that more "intense" occupational experiences and stressors such as psychological contract breach (Gakovic & Tetrick, 2003) may be more likely to have a meaningful impact on occupational future time perspective. Consistently, the psychological contract perspective on careers (Baruch & Rousseau, 2019) argues that perceived breach can have important consequences for employees' evaluations of their future goals.

Finally, by showing that occupational future time perspective dimensions are associated with emotional engagement, exhaustion, and career-related behavior above and beyond psychological contract violation, we contribute to theorizing on occupational well-being and career behavior. Research on these outcomes has so far largely neglected occupational future time perspective dimensions as potential antecedents, despite evidence from other psychological disciplines that the way people think about the future can have important implications for their well-being and motivation (e.g., Karniol & Ross, 1996; Oettingen & Mayer, 2002). Future theorizing could integrate occupational future time perspective with resource perspectives on occupational well-being and motivation (see Hobfoll, 1989; Schmitt et al., 2013).

With regard to implications for organizational practice, our findings suggest that managers should be sensitive toward the potential consequences of psychological contract breach for employees' occupational future time perspective and, indirectly, their well-being and career-related behavior. Due to the implications of emotional engagement and exhaustion for long-term health and well-being (Bakker, Demerouti, & Sanz-Vergel, 2014) and of career-related behavior for employees' internal and external employability (Lam & de Campos, 2015), breach should be avoided or, if this is not possible, mitigated. Managers could take efforts to reduce employee perceptions of psychological contract breach, for instance by making realistic promises during recruitment, onboarding, and in day-to-day work (Zhao et al., 2007). Our results suggest that there may be value in tailoring such "realistic job previews" to aspects of career development, especially the potential for career progress within a particular role

(e.g., “realistic career previews”). This might help employees to self-select into certain jobs and organizational roles and, subsequently, set more realistic career goals. Managers could also attempt to prevent detrimental consequences of psychological contract breach by explaining why the organization has not fulfilled its obligations and by offering alternative career options (Zhao et al., 2007). However, it is important to recognize that organizations may intentionally or unintentionally breach the psychological contract. Additionally, to some extent, breach occurs “in the eye of the beholder,” in that various actions could be perceived, and subsequently attributed, differently (e.g., as intentional or unintentional breach) depending on the individual and context. Explanations may be less effective when the breach was intentional. Nevertheless, when managers become aware that a breach has occurred (e.g., through awareness of policy changes and through direct communication with their employees), it is important that they recognize and validate the concerns of their employees and offer actionable strategies and resources to cope with the breach. For example, we recommend that managers not only focus on alleviating employees' affective responses (e.g., organization-focused anger) but also take steps to re-establish a focus on opportunities and reduce a focus on limitations. In particular, managers should communicate with employees about their future career goals, plans, and aspirations and offer alternative and realistic career development options to them. For instance, research shows that assigning challenging tasks and training self-regulation strategies can help maintain a focus on opportunities (Rudolph et al., 2018; Zacher & Frese, 2011).

5.2 | Limitations and future research

We acknowledge a number of limitations of our study along with suggestions for future research. First, all of our measures were self-report and came from a single source (i.e., employees). This is justified to some extent, as all of our constructs are inherently subjective. To deal with the potential problem of common method variance, we measured constructs at multiple time points and conducted CFAs that provided evidence for the dimensionality of the study variables and their equivalence over time. Nevertheless, future research could assess work outcomes using additional sources (e.g., supervisors, coworkers, and spouses).

Second, although we started with a large sample of nearly 2,000 employees, attrition was relatively high across 12 months. Attrition analyses showed that there were some small differences between those participants that completed only the first and those that completed two or three surveys (i.e., in terms of their age and gender). However, the impact of systematic attrition was relatively minor, inasmuch as these variables accounted for little variance in attrition over time, and our follow-up analyses suggest that attrition had little bearing on means, variances, or patterns of relationships among variables. Nevertheless, future studies should take steps to prevent attrition, for instance by incentivizing participants differently. Relatedly, it would appear as though our overall response rate was low; however, this is due to the broad

initial sampling strategy we employed. The high qualified response rate at T1 of 88.41% (i.e., those who reported working full time) should assuage some concerns regarding sampling.

Third, although we controlled for psychological contract violation, we did not include employee cynicism (Johnson & O'Leary-Kelly, 2003), trust (Zhao et al., 2007), revenge cognitions (Bordia et al., 2008), and resource depletion (Deng et al., 2018) as additional possible and competing explanations in our study. For example, the study by Deng et al. (2018) showed that employees' resource depletion (i.e., measured as lack of energy) mediated effects of psychological contract violation on harmful employee behaviors directed at third parties (i.e., coworkers or customers). We assume that, similar to perceived violation, these alternative mechanisms are more relevant for explaining associations of psychological contract breach with organization-focused counterproductive work behaviors rather than on employee-focused outcomes, such as well-being and career-related behavior. Nevertheless, these mechanisms should be included in future studies to better understand the unique effects of occupational future time perspective dimensions on employee well-being and career-related behavior.

Fourth, our hypotheses focused only on main and indirect effects. We encourage researchers to develop theory and test corresponding hypotheses on potential boundary conditions of direct and indirect effects of psychological contract breach on different dimensions of occupational future time perspective, employee well-being, and career-related behavior. For instance, employees with low equity sensitivity (Sauley & Bedeian, 2000) or high self-control (Bordia et al., 2008; Restubog, Zagenczyk, Bordia, Bordia, & Chapman, 2015) may not show as many changes in occupational future time perspective, well-being, and career-related behavior as compared with employees with high equity sensitivity or low self-control. Moreover, future research could examine our model across different time intervals, such as several weeks. Future research may also consider testing this model with discrete incidents of psychological contract breach using experience sampling studies. In this context, research should also consider that, over time, psychological contracts may be restored after a breach has occurred.

Finally, another important aspect of the psychological contract perspective on careers that we did not examine in this study is that individuals' careers unfold within multilevel employment ecosystems, including organizations, economies, and societal institutions (Baruch & Rousseau, 2019). These ecosystems may impact the nature of individuals' psychological contracts, their career opportunities and constraints, and the associations between these constructs. Baruch and Rousseau (2019) distinguish three broad types of ecosystems. First, fragile ecosystems are characterized by limited and unstable employment opportunities, restricted financial and developmental resources, and transactional psychological contracts. Second, robust ecosystems offer serial employment and government supports, moderate access to resources, and relational and balanced psychological contracts. Third, anti-fragile ecosystems are characterized by mixed alternative employment and entrepreneurial opportunities, a supportive environment, and multifaceted psychological contracts with diverse

stakeholders. Australia, where the current study was conducted, can be characterized as a liberal market economy that, despite a relatively flexible labor market and some increases in non-traditional forms of employment in recent decades, provides more stability and a stronger safety net for workers than in the United States (Wright & Lansbury, 2016). Thus, similar to most European countries, Australia's current employment ecosystem may be classified as robust and perhaps increasingly anti-fragile according to Baruch and Rousseau's (2019) taxonomy. Notably, only 15 participants in our study changed organizations across the 12-month period, yet our theorizing and findings suggest that organization-specific psychological contract breach relates to broader career concerns beyond the current organization. Our theorizing and findings may therefore not generalize to fragile or mostly anti-fragile employment ecosystems. Future research based on the psychological contract perspective on careers could examine how individuals' psychological contracts, career opportunities and constraints, as well as their associations differ across organizational, economical, or cultural levels of employment ecosystems. Moreover, to better understand the role of alternative employment opportunities, future research should systematically compare individuals who changed employers with employees who remained with the same employer over time in terms of reactions to psychological contract breach.

6 | CONCLUSION

This study contributes to the literatures on psychological contracts, employee well-being, careers, and psychological time by showing that psychological contract breach is indirectly related to emotional engagement, emotional exhaustion, and career-related behavior through two dimensions of occupational future time perspective. Psychological contract breach was negatively related to focus on opportunities and positively related to focus on limitations. Focus on opportunities, in turn, was positively related to emotional engagement and career-related behavior, whereas focus on limitations was positively related to emotional exhaustion. These associations were independent of employees' perceived remaining time and psychological contract violation. In support of social exchange and reciprocity theories, violation was only associated with employees' organizational deviance. Our findings suggest that the psychological contract perspective on careers, and particularly occupational future time perspective as a representation of employees' career goal evaluations, complements traditional approaches based on social exchange and reciprocity theories as a viable explanation for associations of psychological contract breach with employee well-being and career-related behavior.

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REFERENCES

- Achnak, S., Griep, Y., & Vantilborgh, T. (2018). I am so tired ... How fatigue may exacerbate stress reactions to psychological contract breach. *Frontiers in Psychology, 9*, 231. <https://doi.org/10.3389/fpsyg.2018.00231>
- Aickin, M. (2009). Dealing with change: Using the conditional change model for clinical research. *The Permanente Journal, 13*, 80–84. <https://doi.org/10.7812/TPP/08-070>
- Aquino, K., Lewis, M. U., & Bradfield, M. (1999). Justice constructs, negative affectivity, and employee deviance: A proposed model and empirical test. *Journal of Organizational Behavior, 20*, 1073–1091. [https://doi.org/10.1002/\(SICI\)1099-1379\(199912\)20:7](https://doi.org/10.1002/(SICI)1099-1379(199912)20:7)
- Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin, 120*, 338–375. <https://doi.org/10.1037/0033-2909.120.3.338>
- Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*, 273–285. <https://doi.org/10.1037/ocp0056>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 389–411. <https://doi.org/10.1146/annurev-orgpsych-031413-091235>
- Bal, P. M., de Lange, A. H., Zacher, H., & van der Heijden, B. I. J. M. (2013). A lifespan perspective on psychological contracts and their relations with organizational commitment. *European Journal of Work and Organizational Psychology, 22*, 279–292. <https://doi.org/10.1080/1359432X.2012.741595>
- Bal, P. M., Jansen, P. G. W., van der Velde, M. E. G., de Lange, A. H., & Rousseau, D. M. (2010). The role of future time perspective in psychological contracts: A study among older workers. *Journal of Vocational Behavior, 76*, 474–486. <https://doi.org/10.1016/j.jvb.2010.01.002>
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*, 1139–1160. <https://doi.org/10.1177/0018726708094863>
- Baruch, Y., & Rousseau, D. M. (2019). Integrating psychological contracts and ecosystems in career studies and management. *Academy of Management Annals, 13*, 84–111. <https://doi.org/10.5465/annals.2016.0103>
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- 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>
- Bordia, P., Restubog, S. L. D., & Tang, R. L. (2008). When employees strike back: Investigating mediating mechanisms between psychological contract breach and workplace deviance. *Journal of Applied Psychology, 93*, 1104–1117. <https://doi.org/10.1037/0021-9010.93.5.1104>
- 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.
- Cate, R. A., & John, O. P. (2007). Testing models of the structure and development of future time perspective: Maintaining a focus on opportunities in middle age. *Psychology and Aging, 22*, 186–201. <https://doi.org/10.1037/a0015425>
- Chambel, M. J., & Oliveira-Cruz, F. (2010). Breach of psychological contract and the development of burnout and engagement: A longitudinal study among soldiers on a peacekeeping mission.

- Military Psychology*, 22, 110–127. <https://doi.org/10.1080/08995601003638934>
- 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
- R Core Team. (2016). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. (<http://www.R-project.org/>)
- Costa, S. P., & Neves, P. (2017). Forgiving is good for health and performance: How forgiveness helps individuals cope with the psychological contract breach. *Journal of Vocational Behavior*, 100, 124–136. <https://doi.org/10.1016/j.jvb.2017.03.005>
- Deng, H., Coyle-Shapiro, J., & Yang, Q. (2018). Beyond reciprocity: A conservation of resources view on the effects of psychological contract violation on third parties. *Journal of Applied Psychology*, 103, 561–577. <https://doi.org/10.1037/apl0000272>
- Fasbender, U., Wohrmann, A. M., Wang, M., & Klehe, U. C. (2019). Is the future still open? The mediating role of occupational future time perspective in the effects of career adaptability and aging experience on late career planning. *Journal of Vocational Behavior*, 111, 24–38. <https://doi.org/10.1016/j.jvb.2018.10.006>
- Finkel, S. E. (2008). Linear panel analysis. In S. Menard (Ed.), *Handbook of longitudinal research: Design, measurement, and analysis* (pp. 475–504). Oxford: Academic Press.
- 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>
- Gakovic, A., & Tetrick, L. E. (2003). Psychological contract breach as a source of strain. *Journal of Business and Psychology*, 18, 235–246. <https://doi.org/10.1023/A:1027301232116>
- Gielnik, M. M., Zacher, H., & Wang, M. (2018). Age in the entrepreneurial process: The role of future time perspective and prior entrepreneurial experience. *Journal of Applied Psychology*, 103, 1067–1085. <https://doi.org/10.1037/apl0000322>
- Goodman, J. S., & Blum, T. C. (1996). Assessing the non-random sampling effects of subject attrition in longitudinal research. *Journal of Management*, 22, 627–652. <https://doi.org/10.1177/014920639602200405>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161–178. <https://doi.org/10.2307/2092623>
- Griep, Y., & Vantilborgh, T. (2018). Reciprocal effects of psychological contract breach on counterproductive and organizational citizenship behaviors: The role of time. *Journal of Vocational Behavior*, 104, 141–153. <https://doi.org/10.1016/j.jvb.2017.10.013>
- Henry, H., Zacher, H., & Desmette, D. (2017). Future time perspective at work: A systematic review. *Frontiers in Psychology*, 8, 413. <https://doi.org/10.3389/fpsyg.2017.00413>
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300. <https://doi.org/10.1037/0003-066X.52.12.1280>
- 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>
- 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>
- Johnson, J. L., & O'Leary-Kelly, A. M. (2003). The effects of psychological contract breach and organizational cynicism: Not all social exchange violations are created equal. *Journal of Organizational Behavior*, 24, 627–647. <https://doi.org/10.1002/job.207>
- Karniol, R., & Ross, M. (1996). The motivational impact of temporal focus: Thinking about the future. *Annual Review of Psychology*, 47, 593–620. <https://doi.org/10.1146/annurev.psych.47.1.593>
- Kiazad, K., Seibert, S. E., & Kraimer, M. L. (2014). Psychological contract breach and employee innovation: A conservation of resources perspective. *Journal of Occupational and Organizational Psychology*, 87, 535–556. <https://doi.org/10.1111/joop.12062>
- Kooij, D. T. A. M., Kanfer, R., Betts, M., & Rudolph, C. W. (2018). Future time perspective: A systematic review and meta-analysis. *Journal of Applied Psychology*, 103, 867–893. <https://doi.org/10.1037/apl0000306>
- Lam, A., & de Campos, A. (2015). 'Content to be sad' or 'runaway apprentice'? The psychological contract and career agency of young scientists in the entrepreneurial university. *Human Relations*, 68, 811–841. <https://doi.org/10.1177/0018726714545483>
- Markus, H. R., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954–969. <https://doi.org/10.1037/0003-066X.41.9.954>
- 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>
- Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22, 226–256. <https://doi.org/10.5465/amr.1997.9707180265>
- Oettingen, G., & Mayer, D. (2002). The motivating function of thinking about the future: Expectations versus fantasies. *Journal of Personality and Social Psychology*, 83, 1198–1212. <https://doi.org/10.1037/0022-3514.83.5.1198>
- Parzefall, M. R., & Hakanen, J. (2010). Psychological contract and its motivational and health-enhancing properties. *Journal of Managerial Psychology*, 25, 4–21. <https://doi.org/10.1108/02683941011013849>
- Pinquart, M., & Sörensen, S. (2001). Gender differences in self-concept and psychological well-being in old age: A meta-analysis. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 56, P195–P213. <https://doi.org/10.1093/geronb/56.4.P195>
- Preacher, K. J., & Selig, J. P. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures*, 6, 77–98. <https://doi.org/10.1080/19312458.2012.679848>
- Restubog, S. L. D., Zagenczyk, T. J., Bordia, P., Bordia, S., & Chapman, G. J. (2015). If you wrong us, shall we not revenge? Moderating roles of self-control and perceived aggressive work culture in predicting responses to psychological contract breach. *Journal of Management*, 41, 1132–1154. <https://doi.org/10.1177/0149206312443557>
- 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>
- Robinson, S. L., & Morrison, E. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior*, 21, 525–546. [https://doi.org/10.1002/1099-1379\(200008\)21:5<525::AID-JOB40>3.0.CO;2-T](https://doi.org/10.1002/1099-1379(200008)21:5<525::AID-JOB40>3.0.CO;2-T)
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behavior*, 15, 245–259. <https://doi.org/10.1002/job.4030150306>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48, 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Newbury Park, CA: Sage.
- Rousseau, D. M., Hansen, S. D., & Tomprou, M. (2018). A dynamic phase model of psychological contract processes. *Journal of Organizational Behavior*, 39, 1081–1098. <https://doi.org/10.1002/job.2284>

- Rudolph, C. W., Kooij, D. T. A. M., Rauvola, R. S., & Zacher, H. (2018). Occupational future time perspective: A meta-analysis of antecedents and outcomes. *Journal of Organizational Behavior*, 39, 229–248. <https://doi.org/10.1002/job.2264>
- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66, 507–514. <https://doi.org/10.1007/BF02296192>
- Sauley, K. S., & Bedeian, A. G. (2000). Equity sensitivity: Construction of a measure and examination of its psychometric properties. *Journal of Management*, 26, 885–910. <https://doi.org/10.1177/014920630002600507>
- Schmitt, A., Gielnik, M. M., Zacher, H., & Klemann, D. K. (2013). The motivational benefits of specific versus general optimism. *Journal of Positive Psychology*, 8, 425–434. <https://doi.org/10.1080/17439760.2013.820338>
- Schmitt, A., Zacher, H., & de Lange, A. H. (2013). Focus on opportunities as a boundary condition of the relationship between job control and work engagement. *European Journal of Work and Organizational Psychology*, 22, 505–519. <https://doi.org/10.1080/1359432X.65>
- Schneider, S. (2001). In search of realistic optimism: Meaning, knowledge, and warm fuzziness. *American Psychologist*, 56, 250–263. <https://doi.org/10.1037/0003-066X.56.3.250>
- Sturges, J., Conway, N., Guest, D., & Liefoghe, A. (2005). Managing the career deal: The psychological contract as a framework for understanding career management, organizational commitment and work behavior. *Journal of Organizational Behavior*, 26, 821–838. <https://doi.org/10.1002/job.341>
- 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>
- 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/10.1080/2012.686740>
- Welbourne, T. M., Johnson, D. E., & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal*, 41, 540–555. <https://doi.org/10.2307/256941>
- Wright, C. F., & Lansbury, R. D. (2016). Employment relations in Australia. In G. J. Bamber, R. D. Lansbury, N. Wailes, & C. F. Wright (Eds.), *International and comparative employment relations: National regulation, global changes* (pp. 103–125). Routledge.
- Zacher, H. (2013). Older job seekers' job search intensity: The interplay of proactive personality, age, and occupational future time perspective. *Ageing and Society*, 33, 1139–1166. <https://doi.org/10.1017/S0144686X12000451>
- Zacher, H. (2014a). Career adaptability predicts subjective career success above and beyond personality traits and core self-evaluations. *Journal of Vocational Behavior*, 84, 21–30. <https://doi.org/10.1016/j.jvb.2013.10.002>
- Zacher, H. (2014b). Individual difference predictors of change in career adaptability over time. *Journal of Vocational Behavior*, 84, 188–198. <https://doi.org/10.1016/j.jvb.2014.01.001>
- Zacher, H., & de Lange, A. H. (2011). Relations between chronic regulatory focus and future time perspective: Results of a cross-lagged structural equation model. *Personality and Individual Differences*, 50, 1255–1260. <https://doi.org/10.1016/j.paid.2011.02.020>
- Zacher, H., & Frese, M. (2009). Remaining time and opportunities at work: Relationships between age, work characteristics, and occupational future time perspective. *Psychology and Aging*, 24, 487–493. <https://doi.org/10.1037/a0015425>
- Zacher, H., & Frese, M. (2011). Maintaining a focus on opportunities at work: The interplay between age, job complexity, and the use of selection, optimization, and compensation strategies. *Journal of Organizational Behavior*, 32, 291–318. <https://doi.org/10.1002/job.683>
- Zacher, H., & Rudolph, C. W. (2018). Just a mirage: On the incremental predictive validity of subjective age. *Work, Aging and Retirement*, 5, 141–162. <https://doi.org/10.1093/workar/wax031>
- Zacher, H., & Rudolph, C. W. (2019). Why do we act as old as we feel? The role of occupational future time perspective and core self-evaluations in the relationship between subjective age and job crafting behavior. *European Journal of Work and Organizational Psychology*, 28, 831–844. <https://doi.org/10.1080/1359432X.2019.1677609>
- Zhang, W., Wang, H., & Pearce, C. L. (2014). Consideration for future consequences as an antecedent of transformational leadership: The moderating effects of perceived dynamic work environment. *The Leadership Quarterly*, 25, 329–343. <https://doi.org/10.1016/j.leaqua.2013.09.002>
- Zhao, H., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: A meta-analysis. *Personnel Psychology*, 60, 647–680. <https://doi.org/10.1111/j.1744-6570.2007.00087.x>

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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