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# 1. How a dynamic way of thinking can challenge existing knowledge in organizational behavior

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Traditionally, most research conducted in the fields of organizational psychology and organizational behavior (OB) has adopted a differential perspective by focusing on between-person differences in psychological constructs, often measured at a single point in time. For instance, scholars have examined which individual difference characteristics (e.g., general mental ability, personality traits) best predict job performance (Schmidt & Hunter, 1998), job attitudes (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), or leadership success (Bono & Judge, 2004). The emergence of multilevel modeling in the 1990s (Klein & Kozlowski, 2000) has led to a rapid growth in experience sampling and daily diary studies, which mostly investigated within-person variability in psychological constructs across time, as well as within-person associations among variables (Beal & Weiss, 2003). For instance, an early diary study found within-person relationships between employees' daily recovery during leisure time and next-day work engagement and proactive behavior (Sonnentag, 2003).

Up until recently, the vast majority of studies (including most experience sampling and diary studies) did not adopt a dynamic or process perspective by examining the role of change and stability in psychological constructs over time (Roe, 2008). Fortunately, the past decade has seen an increase in theory development and empirical studies that adopt a dynamic way of thinking and, by doing so, sometimes challenge existing knowledge in the field of OB. This trend may be due to an increased interest in the role of time and temporal development in organizational research (Ancona, Goodman, Lawrence, & Tushman, 2001; Mitchell & James, 2001; Shipp & Cole, 2015; Sonnentag, 2012; Zacher, 2015). The goal of this chapter is to selectively highlight such dynamic research, including studies on change and stability over time in: (a) personality and emotions, (b) attitudes and well-being, (c) motivation and behavior, (d) career development, (e) job design, (f) leadership and entrepreneurship, (g) teams and diversity, and (h) human resource management. We conclude this chapter with a discussion of implications for future theory development and empirical research. To set the stage, in the following section, we first describe what we mean by “a dynamic way of thinking.”

## WHAT DO WE MEAN BY A “DYNAMIC WAY OF THINKING”?

Dynamic research focuses on how certain phenomena emerge (i.e., onset), evolve or fluctuate, and dissolve (i.e., offset) over time (McCormick, Reeves, Downes, Li, & Ilies, 2018; Roe, 2008; Vantilborgh, Hofmans, & Judge, 2018). For example, research on emergence examines how interactions between lower-level units (e.g., employees) dynamically lead to the manifestation of phenomena at higher levels (e.g., teams; Kozlowski, Chao,

Grand, Braun, & Kuljanin, 2013). Furthermore, dynamic research is not only concerned with within-unit change or stability in a construct, but also with between-unit differences in within-unit development, as well as antecedents and consequences of development (M. Wang et al., 2017). Dynamic research designs must involve at least three, but ideally more, measurement occasions because systematic changes between time points may not only be linear but also nonlinear (e.g., U-shaped; Ployhart & Vandenberg, 2010; M. Wang, Zhou, & Zhang, 2016). Relevant units could be individuals, teams, or organizations. For example, at the person level, dynamic research might examine within-person change or stability in cognitive abilities or personality characteristics over time, as well as between-person differences in such developments (Nesselroade, 1991). Changes in constructs can have various durations, ranging from seconds/minutes/hours over days/weeks/month to several years and across the lifespan.

A dynamic way of thinking could challenge existing knowledge in the OB field in at least three ways. First, empirical evidence of within-unit development over time might suggest that a construct is relatively more dynamic or stable, or that a phenomenon is longer or shorter lasting than has been traditionally been assumed. For example, an individual's personality had traditionally been assumed to be "set like plaster" after the age of 30 years (Costa & McCrae, 1994); today it is widely recognized that personality characteristics can change during midlife and up until old age (Costa, McCrae, & Löckenhoff, 2019; Nye & Roberts, 2019). Moreover, longitudinal research has shown that the beneficial effects of vacation fade out quickly within one month, particularly when job demands are high (Kühnel & Sonnentag, 2011).

Second, the size and/or direction of associations at the between-unit level might be different from dynamic effects of within-unit changes. For example, there is evidence that interindividual differences in self-efficacy are associated with interindividual differences in job performance (Bandura & Locke, 2003; Stajkovic & Luthans, 1998). However, within-person changes in self-efficacy may not necessarily predict changes in job performance. Indeed, researchers have suggested that an increase in self-efficacy is more likely to be the outcome of past performance than vice versa (Sitzmann & Yeo, 2013; Vancouver, Thompson, & Williams, 2001). More recently, research has shown that interindividual differences in proactive behavior are negatively related to interindividual differences in emotional exhaustion, whereas a within-person change in proactive behavior over time is positively related to a subsequent change in emotional exhaustion (Zacher, Schmitt, Jimmieson, & Rudolph, 2019).

Third, antecedents or consequences (which themselves may be dynamic or stable) of dynamic constructs might differ from correlates of these constructs measured at a single time point. For instance, a systematic review found that challenge stressors have different effects on work engagement at the between- and within-person levels; while challenge stressors were largely unrelated to increases in work engagement over time in between-person studies, they positively predicted daily work engagement at the within-person level (Sonnentag, 2015). In the next section, we selectively review OB research that has adopted a dynamic way of thinking and dynamic research designs.

## DYNAMIC THINKING ABOUT ORGANIZATIONAL BEHAVIOR TOPICS

In reviewing the literature, we were surprised to find that already quite a few journal articles have dealt with dynamics in the context of work and organizations. In the following, we focus particularly on those papers that challenge existing knowledge on different OB topics.

### **Personality and Emotions**

For most of the 20th century, researchers assumed that personality is stable or “set like plaster” after early adulthood (Costa & McCrae, 1994). Over the past two decades, this notion has been challenged by developmental and personality psychologists (Roberts & Mroczek, 2008). According to the neo-socioanalytic model of personality (Roberts & Wood, 2006), changes in personality traits across the lifespan are not only due to genetic influences, but also socialization experiences, such as schooling, family, and employment. For example, several longitudinal studies on the Big Five personality traits showed that conscientiousness and agreeableness increase with age, whereas neuroticism decreases over the lifespan (Roberts, Walton, & Viechtbauer, 2006; Specht, Egloff, & Schmukle, 2011; Srivastava, John, Gosling, & Potter, 2003). Moreover, organizational researchers have argued that personality characteristics are not only associated with work outcomes at the between-person level (Barrick & Mount, 1991), but that job characteristics and work experiences can also lead to changes in personality (Frese, 1982; Woods, Lievens, De Fruyt, & Wille, 2013; Zacher, Hacker, & Frese, 2016). For example, the Demands-Affordances TrAnSACTIONAL (DATA) model of personality development at work proposes that work demands (related to the vocation, job, group, and organization) influence personality-related behavior at work (Woods, Wille, Wu, Lievens, & De Fruyt, 2019). Moreover, Woods and colleagues (2019) argue that person–environment (mis-)fit is a key mechanism that leads to longer-term personality trait change in the work context.

Consistent with the model’s assumptions, a longitudinal study showed that high school students with lower agreeableness, neuroticism, and openness to experience were more likely to join the German military after graduation (Jackson, Thoemmes, Jonkmann, Lüdtke, & Trautwein, 2012). Interestingly, the researchers also found that people who received military training were more likely to experience declines in agreeableness compared to a control group, and these effects could still be shown several years later after people had entered college or employment. Another study showed not only that proactive personality had positive effects on increases in job demands, autonomy, and supervisory support, but that job demands and autonomy also had positive effects on increases in proactive personality across three years (Li, Fay, Frese, Harms, & Gao, 2014). A study by Wu (2016) showed that an increase in time demands predicted an increase in job stress and, in turn, an increase in neuroticism as well as decreases in extraversion and conscientiousness across five years. Furthermore, an increase in job autonomy predicted increases in agreeableness, conscientiousness, and openness.

Focusing on an even longer time period of 15 years, Wille and De Fruyt (2014) found reciprocal influences between the Big Five personality characteristics and vocational experiences (operationalized by Holland’s RIASEC occupational characteristics) in a

sample of young professionals. Another study based on the same dataset demonstrated that changes in Big Five personality traits were reciprocally related to changes in job satisfaction and work involvement, suggesting a maturational process (Wille, Hofmans, Feys, & De Fruyt, 2014). Finally, a longitudinal study across four years showed that employees' level of openness to experience did not only predict upward job changes into managerial and professional positions, but that these job changes also led to increases in openness to experience over time (Nieß & Zacher, 2015).

Finally, several studies over the last few years have shown that personality-related states and behaviors vary across work days and can be predicted by other internal states as well as situational factors (Zacher, 2016). For example, one study showed that Big Five personality traits were related to average levels of trait manifestations in daily work behavior; daily work experiences (e.g., interpersonal conflict) predicted deviations from these average levels (Judge, Simon, Hurst, & Kelley, 2014). Other studies in this area have demonstrated that within-person variability in conscientiousness, neuroticism, and core self-evaluations is associated with within-person variability in daily job performance (Debusscher, Hofmans, & De Fruyt, 2016a, 2016b).

In the area of workplace emotions and affect, researchers have traditionally assumed that positive events and experiences lead to positive outcomes, such as well-being, whereas negative events and experiences lead to negative outcomes, such as strain (i.e., "affect symmetries"; see Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003). Challenging these assumptions, Bledow, Schmitt, Frese, and Kühnel (2011) developed the affective shift model of work engagement, according to which negative affect (e.g., feeling angry or sad) can lead to work engagement if the experience of negative affect is followed by positive affective experiences. Consistently, the researchers showed that negative events and affect in the morning led to higher work engagement in the afternoon if employees experienced high levels of positive affect between the morning and the afternoon. In a subsequent study, this dynamic shift from negative to positive affect also resulted in higher creativity (Bledow, Rosing, & Frese, 2013).

More recently, based on an integration of theorizing on social networks and affect, Lopez-Kidwell, Niven, and Labianca (2018) proposed a dynamic model of the development of affective experiences in dyadic workplace relationships. Specifically, they argued that the interaction between two partners' typical level of "trait relational affect" predicts improvements, declines, or maintenance in their relationship trajectory. In addition, the dyadic partners' "state relational affect" experienced in specific interactions can change the relationship trajectory and, in turn, informal work ties as well as important work outcomes such as motivation, performance, and innovation. The model extends the current literatures on organizational networks and affect by suggesting that organizational networks are dynamic and affect not only an individual experience but also a relational phenomenon (Lopez-Kidwell et al., 2018).

### **Work-Related Attitudes and Well-Being**

Several meta-analyses have shown that interindividual differences in job attitudes, such as job satisfaction and organizational commitment, are associated with interindividual differences in job performance and withdrawal behavior (e.g., Harrison, Newman, & Roth, 2006; Judge, Thoresen, Bono, & Patton, 2001). In contrast, research on potential

dynamic effects of within-person changes in job attitudes is just starting to emerge. In an early paper, Chen, Ployhart, Cooper Thomas, Anderson, and Bliese (2011) developed and tested a dynamic model of the effect of job satisfaction change on turnover intentions. Based on an integration of propositions of prospect theory, sense-making theory, conservation of resources theory, and theorizing on within-person spirals, the researchers found that change in job satisfaction explained change in turnover intentions above and beyond absolute levels of job satisfaction. Consistently, another study showed that the interplay between individual-level and unit-level job satisfaction trajectories predicts actual turnover above and beyond static levels of job satisfaction (Liu, Mitchell, Lee, Holtom, & Hinkin, 2012). A constructive replication of Chen and colleagues' (2011) study showed that changes in job satisfaction also negatively predict changes in retirement intentions among older workers (Zacher & Rudolph, 2017). Overall, these studies extend current theorizing by showing that dynamic changes in work-related attitudes can account for incremental variance in outcomes that is not explained by interindividual differences.

With regard to another important attitudinal construct, organizational commitment, previous research had shown that newcomers typically experience a decline in affective commitment in their first years of employment. Challenging this finding, Maia, Bastos, and Solinger (2016) found that a minority of newcomers (33 percent) in fact experienced growth in commitment over the first three years in employment, whereas a majority (62 percent) indeed experienced a decline in commitment (see also Solinger, van Olffen, Roe, & Hofmans, 2013). Higher age, person–job fit, and task challenge predicted growth in commitment, whereas higher workload and lack of promotions predicted declining commitment. A related attitudinal construct, perceived person–environment fit, has traditionally been assumed to predict employee affect and performance (i.e., comparative reasoning perspective). However, this assumption has been challenged by two studies with dynamic research designs (Vleugels, De Cooman, Verbruggen, & Solinger, 2018). The researchers investigated the two competing assumptions that affect and performance predict person–environment fit perceptions (i.e., reverse causation from a logical deduction perspective) and that person–environment fit perceptions are not substantially different from people's thoughts and feelings about their environment (i.e., a synchronous relationship, from a heuristic thinking perspective). In contrast to longstanding assumptions, results found support for the synchronous relationship perspective, which points toward heuristic thinking as the underlying process.

Similar to research on organizational commitment and perceived person–environment fit, most research on employees' organizational justice perceptions and psychological contracts has been cross-sectional. An exception is a longitudinal study that examined trajectories of individuals' fairness perceptions over time (Hausknecht, Sturman, & Roberson, 2011). The researchers showed that justice trajectories (and, in particular, procedural justice trajectories) explained incremental variance in job satisfaction, organizational commitment, and turnover intentions, above and beyond interindividual differences in end-state levels of justice. To encourage more longitudinal research in this area, Jones and Skarlicki (2013) drew on sense-making and social cognition theories to develop a dynamic model of organizational justice. The model proposes that employees' perceptions of fairness change based on the interplay between expectations regarding relevant people involved in the process and fairness judgments of specific events, which may be more or less consistent with each other. Similarly, based on the observation that previous

research on psychological contracts has been largely static, several recent longitudinal studies have adopted a dynamic perspective by investigating changes in experiences of psychological contract breach and violation over time (Solinger, Hofmans, Bal, & Jansen, 2016). For example, a weekly diary study found that job demands related positively to breach perceptions in the following week when job autonomy and social support were low and when development resources were high (Bal, Hofmans, & Polat, 2017). Another dynamic study challenged static conceptualizations of psychological contract breach and its reactions by showing that an accumulation of breach over ten weeks was positively related to increased feelings of violation and organization-focused counterproductive work behavior (Griep & Vantilborgh, 2018). Moreover, scholars have recently developed a dynamic model of psychological contract phases. The model explains how employees' beliefs regarding their own and their organization's promises, contributions, and obligations toward the respective other party change over time and between contexts (Rousseau, Hansen, & Tomprou, 2018).

In the research area of occupational health, stress, and well-being, the importance of conducting longitudinal studies, examining change over time, and ruling out reverse causality was already emphasized more than two decades ago (Zapf, Dormann, & Frese, 1996). Accordingly, numerous studies have treated well-being as a dynamic construct that fluctuates or changes within persons over time (see Sonnentag, 2015, for a review). Nevertheless, up until recently, some constructs in this area were not investigated from a dynamic perspective, but were treated as an aggregate between-person phenomenon. For example, Taylor, Bedeian, Cole, and Zhang (2017) argued that researchers had neglected dynamic effects of workplace incivility on burnout and turnover cognitions. They found that changes in workplace incivility predicted subsequent changes in burnout which, in turn, influenced subsequent changes in turnover cognitions. Based on the observation that previous research had mostly focused on stressor-to-strain effects, between-person associations, and relatively healthy employees, another study examined within-person and reciprocal associations between different levels of perceived job insecurity and depressive symptoms (Vander Elst, Notelaers, & Skogstad, 2018). Consistent with expectations, the researchers found reciprocal relationships between a state of high job insecurity and high depressive symptoms. The study contributes to the literature by showing that dynamic effects of stressors and strain can differ depending on the level of constructs under investigation.

### **Work Motivation and Behavior**

In the literature on work motivation, positive associations between self-efficacy (i.e., the belief that one can successfully complete a given task; Bandura, 2001) and job performance at the between-person level have typically been interpreted as causal effects of self-efficacy on performance (Judge, Jackson, Shaw, Scott, & Rich, 2007; Stajkovic & Luthans, 1998).

Research by Vancouver et al. (2001) has challenged this assumption by suggesting that past performance positively influences self-efficacy, which, in turn, has a negative effect on subsequent performance at the within-person level (i.e., due to overconfidence). Indeed, a within-person study supported these assumptions. More recently, a meta-analysis found that the within-person correlation between past performance and self-efficacy, controlling

for the linear trajectory, was stronger than the within-person correlation between self-efficacy and performance (Sitzmann & Yeo, 2013). In addition, the researchers showed that the effect of past performance on self-efficacy was moderate to strong across moderating conditions, whereas the effect of self-efficacy on performance was less stable. These findings provide support for Vancouver et al.'s (2001) proposition that, in contrast to common assumptions that self-efficacy impacts performance, self-efficacy should be conceived as a product of one's past performance. More generally, research on self-regulation and multiple goal pursuit in the work context has been at the forefront of adopting more dynamic theorizing (Neal, Ballard, & Vancouver, 2017).

With regard to work behavior, scholars have noted for some time that different forms of job performance fluctuate within employees across time periods such as days and weeks (Dalal, Bhawe, & Fiset, 2014) and may even change with age across the lifespan (Ng & Feldman, 2013). However, apart from a few exceptions, most theoretical models aiming to explain performance do not adopt a dynamic approach. For example, the episodic process model of affective influences on performance suggests that within-person fluctuations in performance across distinct episodes result from fluctuations in emotions and moods, which influence individuals' attentional resources (Beal, Weiss, Barros, & MacDermid, 2005). More recently, researchers developed a temporal theory of organizational citizenship behavior that focuses on longer-term variations in the behavior of workers with a "good citizen identity" (Methot, Lepak, Shipp, & Boswell, 2017). The researchers argue that these workers' level of organizational citizenship behavior can change gradually over time due to sensemaking cues and changes in identity narratives associated with specific role transitions and work episodes.

In terms of empirical research, studies with a dynamic approach increasingly challenge existing knowledge by suggesting that some forms of work behavior do not only have positive outcomes but also, at the same time, may lead to negative outcomes for individuals or organizations. For instance, a daily diary study across three weeks showed that helping others at work does not only have beneficial effects (as has been traditionally assumed in the literature; Penner, Dovidio, Piliavin, & Schroeder, 2005), but can also be costly for the helper (Lanaj, Johnson, & Wang, 2016). The study showed that responding to help requests at work depletes employees' regulatory resources, whereas the perceived prosocial impact of helping can recover such resources. While the depletion effect was particularly strong among employees with high prosocial motivation, the recovery effect was weaker for these employees. Consistently, another study found that elicited forms of organizational citizenship behavior (i.e., those that are experienced as an obligation) are positively associated with counterproductive work behavior at the within-person level, likely due to compensatory mechanisms (Spanouli & Hofmans, 2016).

Another study challenged the literature on ethical leadership, which had typically shown positive effects of ethical leader behavior on employee and team outcomes (Lin, Ma, & Johnson, 2016). Based on ego depletion and moral licensing theories, Lin et al. proposed that ethical behavior may come at a cost for leaders themselves. Across two daily diary studies, they found that leaders who show ethical behavior were more likely to behave abusively toward their employees the following day, due to increases in resource depletion (i.e., mental fatigue) and perceived moral credits. Finally, a recent longitudinal study challenged the notion that proactive behavior has positive outcomes. While proactive behavior is generally positively associated with performance-related outcomes

(Tornau & Frese, 2013), the study showed that an increase in personal initiative across six months led to a subsequent decrease in positive mood and, when perceived organizational support was low, an increase in negative mood (Zacher et al., 2019). Changes in positive and negative mood, in turn, predicted changes in employees' emotional engagement and exhaustion. A change in personal initiative behavior had negative indirect effects on change in engagement, and positive indirect effects on change in exhaustion through changes in positive and negative moods. Overall, these findings suggest that well-intended behaviors may have negative effects for those who show them.

## **Career Development**

The topic of career development is inherently dynamic, and numerous longitudinal studies in this area exist (e.g., Biemann, Zacher, & Feldman, 2012; Carless & Arnup, 2011). Recently, a number of dynamic studies have challenged existing knowledge in this area. For example, a study used uncertainty reduction theory to examine the development of expatriates' work adjustment during an international assignment (Zhu, Wanberg, Harrison, & Diehn, 2016). The results, based on ten waves of data across nine months, showed that expatriates' work adjustment increased linearly over time. Moreover, two resources (i.e., previous culture-specific work experience and core self-evaluations) boost this effect, and adjustment trajectories predicted turnover intentions and job promotions. Overall, these findings challenge traditional theorizing on expatriate adjustment, which proposed a U-shape pattern (i.e., honeymoon, followed by culture shock, adaptation, and mastery; Oberg, 1960).

In the area of newcomer adjustment, a longitudinal study by D. Wang, Hom, and Allen (2017) challenged a previous study that found that organizational socialization strengthens the so-called "hangover effect" (i.e., declines in job satisfaction as newcomers become more familiar with the job; Boswell, Shipp, Payne, & Culbertson, 2009). D. Wang and colleagues surveyed newcomers across six months about their socialization tactics and found that, in general, socialization tactics indeed exacerbate declines in job satisfaction in the early phases of employment. However, when socialization tactics were enacted at high levels across the first six months of employment, they actually weakened declines in job satisfaction, and extremely high social tactics even suppressed the so-called hangover effect. Another study by Song, Liu, Shi, and Wang (2017) showed that newcomers change their usage of seven different proactive socialization tactics (both within and between tactics) over the first four months on the job. Their dynamic research goes beyond cross-sectional studies by showing that within-person change trends in the usage of socialization tactics impacts on important socialization outcomes (i.e., leader-member exchange, affective commitment, occupational self-efficacy).

## **Job Design**

Research on job design has traditionally focused on top-down approaches, whereby organizations and managers (re-)design employees work characteristics. Over the past two decades, however, scholars have increasingly investigated the concept of job crafting—employees' active attempts to create a better fit between their job (including task characteristics and relationships) and their personal abilities and needs (Wrzesniewski &

Dutton, 2001). A meta-analysis showed that job crafting is positively related to important work outcomes, such as employee well-being and performance (Rudolph, Katz, Lavigne, & Zacher, 2017). Over the past few years, research on job crafting has adopted more dynamic approaches to demonstrate that individuals are not only influenced by their job design, but can also make meaningful changes to their job. For instance, a longitudinal study with three measurement points across two months found that job crafting behavior led to an increase in job resources, which, in turn, resulted in increased well-being (Tims, Bakker, & Derks, 2013).

At the same time, researchers have attempted to better integrate the role of time into more traditional job design research (Clegg & Spencer, 2007; Fried, Grant, Levi, Hadani, & Slowik, 2007; Parker, Andrei, & Li, 2014). For example, Li, Burch, and Lee (2017) examined in two longitudinal studies how within-person changes in job complexity relate to employee strain. The researchers found that a positive job complexity trajectory predicted higher strain, above and beyond the average level of job complexity. Job autonomy and emotional stability moderated the effect of the job complexity trajectory on strain such that employees with higher emotional stability and job autonomy experienced less strain when facing increasing job complexity, whereas job autonomy did not buffer the effect for employees with low emotional stability. This study illustrates the importance of considering within-person changes in job characteristics in addition to between-person differences as predictors of important work outcomes such as strain.

### **Leadership and Entrepreneurship**

Even though leading other people entails a dynamic interpersonal process, most leadership studies have adopted a static approach to the leader–member exchange (LMX) relationship (Dóci, Stouten, & Hofmans, 2015; Hofmans, Dóci, Solinger, Choi, & Judge, 2018). One exception is a study in which the researchers showed that LMX quality changes over time, particularly in earlier as compared to later stages of the exchange relationship (Park, Sturman, Vanderpool, & Chan, 2015). In addition, trajectories of job performance and justice perceptions predicted LMX quality. Another longitudinal study across four months demonstrated that a dynamic increase in shared leadership within groups predicts growth in group trust which, in turn, was related to performance improvements (Drescher, Korsgaard, Welpe, Picot, & Wigand, 2014). Finally, several daily and weekly diary studies on leadership have been conducted over the past decade, demonstrating that leader behaviors fluctuate dynamically over time and that these variations relate to important follower outcomes (e.g., Breevaart, Bakker, Demerouti, & Derks, 2016; Breevaart & Zacher, 2019; Nielsen & Cleal, 2011; Zacher & Wilden, 2014).

Similar to research on leadership, up until recently most research on entrepreneurship has not adopted a dynamic approach (for recent exceptions, see Gielnik, Zacher, & Schmitt, 2017; Gielnik, Zacher, & Wang, 2018). One study examined effects of action-regulation factors (i.e., goal intentions, positive fantasies, action planning) on new venture creation and how these effects hold over time (Gielnik et al., 2014). Using a longitudinal design over 30 months, the researchers showed that high levels of action planning strengthened the effects of entrepreneurial goal intentions and positive fantasies on new venture creation. Interestingly, these effects became weaker over time. Another study across 32 months demonstrated that psychological processes following entrepreneurship training

are dynamic (Gielnik, Uy, Funken, & Bischoff, 2017). Specifically, people with higher entrepreneurial self-efficacy were better able to maintain high levels of entrepreneurial passion after training, which, in turn, led to venture creation (for another longitudinal study on entrepreneurial passion, see Collewaert, Anseel, Crommelinck, De Beuckelaer, & Vermeire, 2016). Gielnik and colleagues (2014, 2017) conclude that a dynamic approach to entrepreneurship is key to developing better theories and arriving at valid conclusions.

### **Teams and Diversity**

Most research on teams and diversity has not used a dynamic approach. To move research in this area forward, Li et al. (2018) presented a dynamic theory to understand how changes in team composition and diversity (i.e., enlargement and decline in variety, separation, and disparity through member addition, subtraction, and substitution) can impact on team performance. The model extends previous research, which has focused on teams being more or less diverse than others, by focusing on teams becoming more or less diverse than before. In a recent empirical study, the researchers examined reciprocal associations between employees' within-person change in multiple team memberships and job performance (van den Brake, Walter, Rink, Essens, & Van Der Vegt, 2018). Using data collected over five years, results showed that an increase in multiple team memberships predicted a subsequent decrease in job performance in the short term but an increase in performance over a longer time period. Moreover, an increase in job performance predicted a subsequent increase in multiple team memberships. Overall, this study suggests that dynamics in multiple team memberships and job performance are linked in complex ways over time.

### **Human Resource Practices**

In contrast to other research domains, hardly any studies have examined dynamics in human resource (HR) practices and their effects. An exception is a five-year longitudinal study on hospital service employees' perceptions of organizational HR systems, job satisfaction, and performance (Piening, Baluch, & Salge, 2013). Specifically, the researchers found that changes in job satisfaction mediated the effects of changes in employees' perceptions of HR systems on changes in customer satisfaction. In addition, they showed that the effects of perceptions of HR systems were rather short-lived and gradually declined over time.

## **IMPLICATIONS FOR FUTURE THEORY DEVELOPMENT AND EMPIRICAL RESEARCH**

The preceding review highlights that, although adopting a dynamic approach to theorizing and conducting research has advanced how we think about a variety of topics in OB, there is still quite a bit of room to learn from this approach (see also McCormick et al., 2018, for a quantitative and qualitative review of within-person research in the field of OB). Regarding theory, it is clear that there has been some effort dedicated to the development or adaptation of dynamic theories to OB topics. For example, the recent development of the DATA model (Woods et al., 2019) largely complements the

neo-socioanalytic theory of personality development (Roberts & Wood, 2006), and extends predictions of personality change to the work context (see also recent work by Nye & Roberts, 2019). Despite such efforts, there still remain notable gaps in the scope of dynamic theorizing. Indeed, we lack a comprehensive and grand dynamic theory of OB. Our review highlights that research often rests upon the integration of multiple mid-range theoretical perspectives to make dynamic predictions. Unfortunately, these piecemeal attempts at theorizing are rarely codified into distinct theoretical models, resulting in a notable opportunity to fill this gap in this literature. For example, future dynamic research could draw on action regulation theory, a meta-theory on the psychological regulation of goal-directed behavior in the work context (Zacher & Frese, 2018). Action regulation theory does not only explain how actions unfold over short periods of time, but also how they are influenced by and, in turn, influence the work environment over longer periods of time, including the adult lifespan (Zacher et al., 2016). Indeed, action regulation theory has already been used more nearly 40 years ago to explain changes in personality due to work-related influences (Frese, 1982).

Regarding empirical research, our review suggests that there are a number of areas in which adopting a dynamic approach has challenged preexisting and static notions about OB phenomena. For example, research showed the direction of links between proactive behavior and well-being can differ at the between- and within-person levels of analysis (Zacher et al., 2019). Taken together, our review suggests that quite some progress has been made so far in adopting a dynamic approach to studying OB phenomena. However, our review also raises important questions for future theorizing and research to address. We next outline these questions, and provide some additional guiding thoughts about how they might be answered by future work.

First, given the preceding review, one question to be raised is, “*How* can a dynamic approach to theorizing and research challenge existing knowledge in the field of OB?” The seemingly obvious answer to this would come from the results of dynamic studies that run contrary to those from static conceptualizations, particularly with regard to a different direction or size of effects (see also McCormick et al., 2018). We would caution against this strict interpretation, however. Indeed, there is much to be learned from the results of studies that suggest that homologous static associations and dynamic processes co-occur with one another. Associations at the within- and between-person levels are statistically independent; thus, showing that these associations are similar at both levels is also informative. To some extent, the ability to understand such co-occurrences is tied to the particular methodology employed, and the ability to jointly model assumed static associations and dynamic processes.

Second, considering our review, several related questions remain, including “Where do we need more dynamic theory?” As already suggested, there is a need to consider more comprehensive dynamic theories of OB, ideally based on well-established and integrative meta-theoretical frameworks (e.g., action regulation theory). Beyond developing new theories, there is a pressing need to test existing theories in a more comprehensive manner. For example, considering research on motivation, there is a need to test dynamic theories that specify self-regulation processes (e.g., Carver & Scheier, 1998). Challenges to testing such models do exist: for example, the non-recursive nature of the feedback process implied by these theories makes testing them a difficult endeavor, both methodologically and statistically.

Related to this is the question, “Where do we need more dynamic empirical research?” Although our review found a diversity of core OB topics that have been studied from a dynamic lens, there are some gaps to be noted in this literature as well. For example, we were surprised to see that only very few studies have considered how dynamics in HR practices are associated with employee and organizational outcomes. We suspect that data to support such empirical efforts already exist within many organizations, and we hope that this observation spurs future researcher–practitioner collaborations to address this gap (Lapierre et al., 2018). Moreover, we found it difficult to locate studies that bridged two or more of the core areas identified in our review. Thus, we believe that integrations of these areas would be particularly useful for advancing a dynamic perspective on OB. For example, research may consider co-occurring dynamic processes of motivation, career development, and entrepreneurship, or the reciprocal dynamics of leader and subordinate emotion regulation and well-being.

Finally, two additional concerns bear consideration here. First, it is clear that there is a need for research to better explicate the fit between dynamic research questions and the methodology employed to answer such questions. On the one hand, to accomplish this, it is important for future research to consider how elements of research design translate the dynamics implied by theory into appropriate data, which can then inform answers to research questions. For example, more attention should be paid to specific features of longitudinal research designs, such as the time span considered, the number of observations collected, and the length of time lags between such observations (M. Wang et al., 2017). On the other hand, there is also a need for theory to do a better job of explicating the timeframes assumed to underlie the unfolding of the dynamic processes they imply (Dormann & Griffin, 2015). One way to expedite such “fit” is for research to explicitly consider dynamic processes across different time spans (i.e., treating time lags as a substantively meaningful variable in one’s research design; see Card, 2019).

Echoing this point, our review suggests the importance of distinguishing among between-unit differences and within-unit change versus stability. If we are to question the role that a dynamic way of thinking has for our understanding of OB phenomena, it is vital to be able to make distinctions between (assumed to be) static and dynamic components of the entities under investigation. This can be accomplished in various ways, for example by specifying and modeling concurrent between- and within-unit variations to approximate individual- versus group-level phenomena, or by modeling time (e.g., either directly, via time-varying covariates, or both) when construing within- versus between-person processes. This idea is likewise reflected in recent scholarship that has called for more dynamic approaches to studying OB. For example, as noted by Vantilborgh et al. (2018), conducting dynamic research can be challenging because theories often lack a temporal perspective, collecting longitudinal data is time- and resource-consuming, and analyzing dynamic data can be challenging as well.

## CONCLUSION

Our goal with this chapter was to demonstrate that a dynamic way of thinking can challenge existing knowledge on OB topics. At the same time, it is clear that dynamic research does not necessarily stand in contrast to established findings. For instance, the direction

and strength of associations between variables may not differ greatly across between-unit and within-unit approaches. We think this is important to acknowledge, and would suggest that findings from both static and dynamic research serve as complementary pieces of evidence toward a more holistic understanding of OB topics. Indeed, to paraphrase a quote often attributed to Kurt Lewin, to truly appreciate the nature of a phenomenon, it is important to understand whether and how it changes. With these thoughts in mind, it is our hope that the present work serves to inspire future theorists and researchers to adopt a more dynamic way of thinking about the complexities of organizational behavior.

## REFERENCES

- Ancona, D. G., Goodman, P. S., Lawrence, B. S., & Tushman, M. L. (2001). Time: A new research lens. *Academy of Management Review*, *26*(4), 645–663. doi:10.5465/amr.2001.5393903
- Bal, M. P., Hofmans, J., & Polat, T. (2017). Breaking psychological contracts with the burden of workload: A weekly study of job resources as moderators. *Applied Psychology: An International Review*, *66*, 143–167. doi:10.1111/apps.12079
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, *52*, 1–26. doi:10.1146/annurev.psych.52.1.1
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, *88*(1), 87–99. doi:10.1037/0021-9010.88.1.87
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, *44*, 1–26. doi:10.1111/j.1744-6570.1991.tb00688.x
- Beal, D. J., & Weiss, H. M. (2003). Methods of ecological momentary assessment in organizational research. *Organizational Research Methods*, *6*(4), 440–464. doi:10.1177/1094428103257361
- Beal, D. J., Weiss, H. M., Barros, E., & MacDermid, S. M. (2005). An episodic process model of affective influences on performance. *Journal of Applied Psychology*, *90*(6), 1054–1068. doi:10.1037/0021-9010.90.6.1054
- Biemann, T., Zacher, H., & Feldman, D. C. (2012). Career patterns: A twenty-year panel study. *Journal of Vocational Behavior*, *81*(2), 159–170. doi:10.1016/j.jvb.2012.06.003
- Bledow, R., Rosing, K., & Frese, M. (2013). A dynamic perspective on affect and creativity. *Academy of Management Journal*, *56*(2), 432–450. doi:10.5465/amj.2010.0894
- Bledow, R., Schmitt, A., Frese, M., & Kühnel, J. (2011). The Affective Shift Model of work engagement. *Journal of Applied Psychology*, *96*(6), 1246–1257. doi:10.1037/a0024532
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, *89*(5), 901–910. doi:10.1037/0021-9010.89.5.901
- Boswell, W. R., Shipp, A. J., Payne, S. C., & Culbertson, S. S. (2009). Changes in newcomer job satisfaction over time: Examining the pattern of honeymoons and hangovers. *Journal of Applied Psychology*, *94*(4), 844–858. doi:10.1037/a0014975
- Breevaart, K., & Zacher, H. (2019). Main and interactive effects of weekly transformational and laissez-faire leadership on followers' trust in the leader and leader effectiveness. *Journal of Occupational and Organizational Psychology*, *92*(2), 384–409. doi:10.1111/joop.12253
- Breevaart, K., Bakker, A. B., Demerouti, E., & Derks, D. (2016). Who takes the lead? A multi-source diary study on leadership, work engagement, and job performance. *Journal of Organizational Behavior*, *37*(3), 309–325. doi:10.1002/job.2041
- Card, N. A. (2019). Lag as moderator meta-analysis: A methodological approach for synthesizing longitudinal data. *International Journal of Behavioral Development*, *43*(1), 80–89. doi:10.1177/0165025418773461
- Carless, S. A., & Arnup, J. L. (2011). A longitudinal study of the determinants and outcomes of career change. *Journal of Vocational Behavior*, *78*(1), 80–91. doi:10.1016/j.jvb.2010.09.002
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.
- Chen, G., Ployhart, R. E., Cooper Thomas, H., Anderson, N., & Bliese, P. D. (2011). The power of momentum: A new model of dynamic relationships between job satisfaction change and turnover intentions. *Academy of Management Journal*, *54*(1), 159–181. doi:10.5465/AMJ.2011.59215089
- Clegg, C., & Spencer, C. (2007). A circular and dynamic model of the process of job design. *Journal of Occupational and Organizational Psychology*, *80*(2), 321–339. doi:10.1348/096317906X113211
- Collewaert, V., Anseel, F., Crommelinck, M., De Beuckelaer, A., & Vermeire, J. (2016). When passion fades: Disentangling the temporal dynamics of entrepreneurial passion for founding. *Journal of Management Studies*, *53*(6), 966–995. doi:10.1111/joms.12193

- Costa, P. T., & McCrae, R. R. (1994). Set like plaster? Evidence for the stability of adult personality. In T. F. Heatherton & J. L. Weinberger (Eds.), *Can personality change?* (pp. 21–40). Washington, DC: American Psychological Association.
- Costa, P. T., McCrae, R. R., & Löckenhoff, C. E. (2019). Personality across the life span. *Annual Review of Psychology*, 70, 423–448. doi:10.1146/annurev-psych-010418-103244
- Dalal, R. S., Bhave, D. P., & Fiset, J. (2014). Within-person variability in job performance: A theoretical review and research agenda. *Journal of Management*, 40(5), 1396–1436. doi:10.1177/0149206314532691
- Debusscher, J., Hofmans, J., & De Fruyt, F. (2016a). Do personality states predict momentary task performance? The moderating role of personality variability. *Journal of Occupational and Organizational Psychology*, 89(2), 330–351. doi:10.1111/joop.12126
- Debusscher, J., Hofmans, J., & De Fruyt, F. (2016b). The effect of state core self-evaluations on task performance, organizational citizenship behaviour, and counterproductive work behaviour, 25(2), 301–315. *European Journal of Work and Organizational Psychology*. doi:10.1080/1359432X.2015.1063486
- Dóci, E., Stouten, J., & Hofmans, J. (2015). The cognitive-behavioral system of leadership: Cognitive antecedents of active and passive leadership behaviors. *Frontiers in psychology*, 6(1344). doi:10.3389/fpsyg.2015.01344
- Dormann, C., & Griffin, M. A. (2015). Optimal time lags in panel studies. *Psychological Methods*, 20(4), 489–505. doi:10.1037/met0000041
- Drescher, M. A., Korsgaard, M. A., Welp, I. M., Picot, A., & Wigand, R. T. (2014). The dynamics of shared leadership: Building trust and enhancing performance. *Journal of Applied Psychology*, 99(5), 771–783. doi:10.1037/a0036474
- Frese, M. (1982). Occupational socialization and psychological development: An underemphasized research perspective in industrial psychology. *Journal of Occupational Psychology*, 55, 209–224. doi:10.1111/j.2044-8325.1982.tb00095.x
- Fried, Y., Grant, A. M., Levi, A. S., Hadani, M., & Slowik, L. H. (2007). Job design in temporal context: A career dynamics perspective. *Journal of Organizational Behavior*, 28, 911–927. doi:10.1002/job.486
- Gielnik, M. M., Barabas, S., Frese, M., Namatovu-Dawa, R., Scholz, F. A., Metzger, J. R., & Walter, T. (2014). A temporal analysis of how entrepreneurial goal intentions, positive fantasies, and action planning affect starting a new venture and when the effects wear off. *Journal of Business Venturing*, 29(6), 755–772. doi:10.1016/j.jbusvent.2013.09.002
- Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and sustaining passion: A long-term perspective on the effects of entrepreneurship training. *Journal of Business Venturing*, 32(3), 334–353. doi:10.1016/j.jbusvent.2017.02.003
- Gielnik, M. M., Zacher, H., & Schmitt, A. (2017). How small business managers' age and focus on opportunities affect business growth: A mediated moderation growth model. *Journal of Small Business Management*, 55(3), 460–483. doi:10.1111/jsbm.12253
- 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(10), 1067–1085.
- 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. doi:10.1016/j.jvb.2017.10.013
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49(2), 305–325. doi:10.5465/AMJ.2006.20786077
- Hausknecht, J. P., Sturman, M. C., & Roberson, Q. M. (2011). Justice as a dynamic construct: Effects of individual trajectories on distal work outcomes. *Journal of Applied Psychology*, 96(4), 872–880. doi:10.1037/a0022991
- Hofmans, J., Dóci, E., Solinger, O. N., Choi, W., & Judge, T. A. (2018). Capturing the dynamics of leader-follower interactions: Stalemates and future theoretical progress. *Journal of Organizational Behavior*. doi:10.1002/job.2317
- Jackson, J. J., Thoenes, F., Jonkmann, K., Lüdtke, O., & Trautwein, U. (2012). Military training and personality trait development: Does the military make the man, or does the man make the military? *Psychological Science*, 23, 270–277. doi:10.1177/0956797611423545
- Jones, D. A., & Skarlicki, D. P. (2013). How perceptions of fairness can change: A dynamic model of organizational justice. *Organizational Psychology Review*, 3(2), 138–160. doi:10.1177/2041386612461665
- Judge, T. A., Jackson, C. L., Shaw, J. C., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology*, 92(1), 107–127. doi:10.1037/0021-9010.92.1.107
- Judge, T. A., Simon, L. S., Hurst, C., & Kelley, K. (2014). What I experienced yesterday is who I am today: Relationship of work motivations and behaviors to within-individual variation in the five-factor model of personality. *Journal of Applied Psychology*, 99(2), 199–221. doi:10.1037/a0034485

- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, *127*(3), 376–407. doi:10.1037/0033-2909.127.3.376
- Klein, K., & Kozlowski, S. W. J. (2000). *Multilevel theory, research, and methods in organizations*. San Francisco, CA: Jossey-Bass.
- Kozlowski, S. W., Chao, G. T., Grand, J. A., Braun, M. T., & Kuljanin, G. (2013). Advancing multilevel research design: Capturing the dynamics of emergence. *Organizational Research Methods*, *16*(4), 581–615. doi:10.1177/1094428113493119
- Kühnel, J., & Sonnentag, S. (2011). How long do you benefit from vacation? A closer look at the fade-out of vacation effects. *Journal of Organizational Behavior*, *32*, 125–143.
- 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*(8), 1097–1110. doi:10.1037/apl0000118
- Lapierre, L. M., Matthews, R. A., Eby, L. T., Truxillo, D. M., Johnson, R. E., & Major, D. A. (2018). Recommended practices for academics to initiate and manage research partnerships with organizations. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *11*(4), 543–581. doi:10.1017/iop.2018.83
- Li, J., Burch, T. C., & Lee, T. W. (2017). Intra-individual variability in job complexity over time: Examining the effect of job complexity trajectory on employee job strain. *Journal of Organizational Behavior*, *38*(5), 671–691. doi:10.1002/job.2158
- Li, J., Meyer, B., Shemla, M., & Wegge, J. (2018). From being diverse to becoming diverse: A dynamic team diversity theory. *Journal of Organizational Behavior*, *39*(8), 956–970. doi:10.1002/job.2272
- 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*(5), 948–965. doi: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*(6), 815–830. doi:10.1037/apl0000098
- Liu, D., Mitchell, T. R., Lee, T. W., Holtom, B. C., & Hinkin, T. R. (2012). When employees are out of step with coworkers: How job satisfaction trajectory and dispersion influence individual- and unit-level voluntary turnover. *Academy of Management Journal*, *55*(6), 1360–1380. doi:10.5465/amj.2010.0920
- Lopez-Kidwell, V., Niven, K., & Labianca, G. (2018). Predicting workplace relational dynamics using an affective model of relationships. *Journal of Organizational Behavior*, *39*, 1129–1141. doi:10.1002/job.2300
- Maia, L. G., Bastos, A. V. B., & Solinger, O. N. (2016). Which factors make the difference for explaining growth in newcomer organizational commitment? A latent growth modeling approach. *Journal of Organizational Behavior*, *37*(4), 537–557. doi:10.1002/job.2096
- McCormick, B. W., Reeves, C. J., Downes, P. E., Li, N., & Ilies, R. (2018). Scientific contributions of within-person research in management: Making the juice worth the squeeze. *Journal of Management*. doi:10.1177/0149206318788435
- Methot, J. R., Lepak, D., Shipp, A. J., & Boswell, W. R. (2017). Good citizen interrupted: Calibrating a temporal theory of citizenship behavior. *Academy of Management Review*, *42*(1), 10–31. doi:10.5465/amr.2014.0415
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta analysis of antecedents, correlates and consequences. *Journal of Vocational Behavior*, *61*, 20–52. doi:10.1006/jvbe.2001.1842
- Mitchell, T., & James, L. (2001). Building better theory: Time and the specification of when things happen. *Academy of Management Review*, *26*(4), 530–547. doi:10.5465/AMR.2001.5393889
- Neal, A., Ballard, T., & Vancouver, J. B. (2017). Dynamic self-regulation and multiple-goal pursuit. *Annual Review of Organizational Psychology and Organizational Behavior*, *4*, 401–423. doi:10.1146/annurev-orgpsych-032516-113156
- Nesselroade, J. R. (1991). Interindividual differences in intraindividual change. In L. M. Collins & J. L. Horn (Eds.), *Best methods for the analysis of change: Recent advances, unanswered questions, future directions* (pp.92–105). Washington, DC: American Psychological Association.
- Ng, T. W. H., & Feldman, D. C. (2013). How do within-person changes due to aging affect job performance? *Journal of Vocational Behavior*, *83*(3), 500–513. doi:10.1016/j.jvb.2013.07.007
- Nielsen, K., & Cleal, B. (2011). Under which conditions do middle managers exhibit transformational leadership behaviors? An experience sampling method study on the predictors of transformational leadership behaviors. *Leadership Quarterly*, *22*(2), 344–352. doi:10.1016/j.leaqua.2011.02.009
- NieB, C., & Zacher, H. (2015). Openness to experience as a predictor and outcome of upward job changes into managerial and professional positions. *PLoS ONE*, *10*(6), e0131115. doi:10.1371/journal.pone.0131115
- Nye, C., & Roberts, B. W. (2019). A neo-socioanalytic model of personality development. In B. B. Baltes, C. W. Rudolph, & H. Zacher (Eds.), *Work across the lifespan* (pp.47–79). London, United Kingdom: Academic Press.
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, *7*(4), 177–182. doi:10.1177/009182966000700405

- Park, S., Sturman, M. C., Vanderpool, C., & Chan, E. (2015). Only time will tell: The changing relationships between LMX, job performance, and justice. *Journal of Applied Psychology, 100*(3), 660–680. doi:10.1037/a0038907
- Parker, S. K., Andrei, D., & Li, W.-D. (2014). An overdue overhaul: Revamping work design theory from a time perspective. In A. J. Shipp & Y. Fried (Eds.), *Time and work: How time impacts individuals* (Vol. 1, pp. 191–228). New York: Psychology Press.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology, 56*, 365–392. doi:10.1146/annurev.psych.56.091103.070141
- Piening, E. P., Baluch, A. M., & Salge, T. O. (2013). The relationship between employees' perceptions of human resource systems and organizational performance: Examining mediating mechanisms and temporal dynamics. *Journal of Applied Psychology, 98*(6), 926–947. doi:10.1037/a0033925
- Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management, 36*(1), 94–120. doi:10.1177/0149206309352110
- Roberts, B. W., & Mroczek, D. K. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science, 17*(1), 31–35. doi:10.1111/j.1467-8721.2008.00543.x
- Roberts, B. W., & Wood, D. (2006). Personality development in the context of the Neo-Socioanalytic Model of Personality. In D. K. Mroczek & T. D. Little (Eds.), *Handbook of personality development* (pp. 11–39). Mahwah, NJ: Lawrence Erlbaum Associates.
- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin, 132*(1), 1–25. doi:10.1037/0033-2909.132.1.1
- Roe, R. A. (2008). Time in applied psychology: The study of “what happens” rather than “what is”. *European Psychologist, 13*(1), 37–52. doi:10.1027/1016-9040.13.1.37
- Rousseau, D. M., Hansen, S. D., & Tomprou, M. (2018). A dynamic phase model of psychological contract processes. *Journal of Organizational Behavior, 39*, 1081–1098. doi:10.1002/job.2284
- 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. doi:10.1016/j.jvb.2017.05.008
- Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin, 124*(2), 262–274. doi:10.1037/0033-2909.124.2.262
- Shipp, A. J., & Cole, M. S. (2015). Time in individual-level organizational studies: What is it, how is it used, and why isn't it exploited more often? *Annual Review of Organizational Psychology and Organizational Behavior, 2*(1), 237–260. doi:10.1146/annurev-orgpsych-032414-111245
- Sitzmann, T., & Yeoo, G. (2013). A meta-analytic investigation of the within-person self-efficacy domain: Is self-efficacy a product of past performance or a driver of future performance? *Personnel Psychology, 66*(3), 531–568. doi:10.1111/peps.12035
- Solinger, O. N., Hofmans, J., Bal, P. M., & Jansen, P. G. (2016). Bouncing back from psychological contract breach: How commitment recovers over time. *Journal of Organizational Behavior, 37*(4), 494–514. doi:10.1002/job.2047
- Solinger, O. N., van Olffen, W., Roe, R. A., & Hofmans, J. (2013). On becoming (un)committed: A taxonomy and test of newcomer onboarding scenarios. *Organization Science, 24*(6), 1640–1661. doi:10.1287/orsc.1120.0818
- Song, Y., Liu, Y., Shi, J., & Wang, M. (2017). Use of proactive socialization tactics and socialization outcomes: A latent growth modeling approach to understanding newcomer socialization process. *Academy of Management Discoveries, 3*(1), 42–63. doi:10.5465/amd.2014.0142
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology, 88*(3), 518–528. doi: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*(4), 361–368. doi:10.1177/2041386612442079
- Sonnentag, S. (2015). Dynamics of well-being. *Annual Review of Organizational Psychology and Organizational Behavior, 2*, 261–293. doi:10.1146/annurev-orgpsych-032414-111347
- Spanouli, A., & Hofmans, J. (2016). Walking the tightrope: Counterproductive work behavior as compensation for citizenship demands. *Frontiers in Psychology, 7*, 1530. doi:10.3389/fpsyg.2016.01530
- Specht, J., Egloff, B., & Schmukle, S. C. (2011). Stability and change of personality across the life course: The impact of age and major life events on mean-level and rank-order stability of the Big Five. *Journal of Personality and Social Psychology, 101*(4), 862–882. doi:10.1037/a0024950
- Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change? *Journal of Personality and Social Psychology, 84*(5), 1041–1053. doi:10.1037/0022-3514.84.5.1041
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*(2), 240–261. doi:10.1037/0033-2909.124.2.240

- Taylor, S. G., Bedeian, A. G., Cole, M. S., & Zhang, Z. (2017). Developing and testing a dynamic model of workplace incivility change. *Journal of Management*, 43(3), 645–670. doi:10.1177/0149206314535432
- 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(6), 914–945. doi:10.1037/0033-2909.129.6.914
- Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology*, 18(2), 230–240. doi:10.1037/a0032141
- Tornau, 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. doi:10.1111/j.1464-0597.2012.00514.x
- van den Brake, H. J., Walter, F., Rink, F. A., Essens, P. J. M. D., & Van Der Vegt, G. S. (2018). The dynamic relationship between multiple team membership and individual job performance in knowledge-intensive work. *Journal of Organizational Behavior*, 39, 1219–1231. doi:10.1002/job.2260
- 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(4), 605–620. doi:10.1037/0021-9010.86.4.605
- Vander Elst, T., Notelaers, G., & Skogstad, A. (2018). The reciprocal relationship between job insecurity and depressive symptoms: A latent transition analysis. *Journal of Organizational Behavior*, 39, 1197–1218. doi:10.1002/job.2250
- Vantilborgh, T., Hofmans, J., & Judge, T. A. (2018). The time has come to study dynamics at work. *Journal of Organizational Behavior*, 39, 1045–1049. doi:10.1002/job.2327
- Vleugels, W., De Cooman, R., Verbruggen, M., & Solinger, O. (2018). Understanding dynamic change in perceptions of person–environment fit: An exploration of competing theoretical perspectives. *Journal of Organizational Behavior*, 39, 1066–1080. doi:10.1002/job.2294
- Wang, D., Hom, P. W., & Allen, D. G. (2017). Coping with newcomer “Hangover”: How socialization tactics affect declining job satisfaction during early employment. *Journal of Vocational Behavior*, 100, 196–210. doi:10.1016/j.jvb.2017.03.007
- 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), 1–24. doi:10.1093/workar/waw033
- Wang, M., Zhou, L., & Zhang, Z. (2016). Dynamic modeling. *Annual Review of Organizational Psychology and Organizational Behavior*, 3(1), 241–266. doi:10.1146/annurev-orgpsych-041015-062553
- Wille, B., & De Fruyt, F. (2014). Vocations as a source of identity: Reciprocal relations between Big Five personality traits and RIASEC characteristics over 15 years. *Journal of Applied Psychology*, 99(2), 262–281. doi:10.1037/a0034917
- Wille, B., Hofmans, J., Feys, M., & De Fruyt, F. (2014). Maturation of work attitudes: Correlated change with Big Five personality traits and reciprocal effects over 15 years. *Journal of Organizational Behavior*, 35(4), 507–529. doi:10.1002/job.1905
- Woods, S. A., Lievens, F., De Fruyt, F., & Wille, B. (2013). Personality across working life: The longitudinal and reciprocal influences of personality on work. *Journal of Organizational Behavior*, 34, S7–S25. doi:10.1002/job.1863
- Woods, S. A., Wille, B., Wu, C. H., Lievens, F., & De Fruyt, F. (2019). The influence of work on personality trait development: The demands-affordances TrAnsactional (DATA) model, an integrative review, and research agenda. *Journal of Vocational Behavior*, 110(B), 258–271. doi:10.1016/j.jvb.2018.11.010
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of Management Review*, 26(2), 179–201. doi:10.5465/AMR.2001.4378011
- Wu, C.-H. (2016). Personality change via work: A job demand–control model of Big-five personality changes. *Journal of Vocational Behavior*, 92, 157–166. doi:10.1016/j.jvb.2015.12.001
- Zacher, H. (2015). Successful aging at work. *Work, Aging and Retirement*, 1(1), 4–25. doi:10.1093/workar/waw006
- Zacher, H. (2016). Within-person relationships between daily individual and job characteristics and daily manifestations of career adaptability. *Journal of Vocational Behavior*, 92(1), 105–115. doi:10.1016/j.jvb.2015.11.013
- 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., Hacker, W., & Frese, M. (2016). Action regulation across the adult lifespan (ARAL): A meta-theory of work and aging. *Work, Aging and Retirement*, 2(3), 286–306. doi:10.1093/workar/waw015
- Zacher, H., & Rudolph, C. W. (2017). Change in job satisfaction negatively predicts change in retirement intentions. *Work, Aging and Retirement*, 3(3), 284–297. doi:10.1093/workar/waw009
- Zacher, H., Schmitt, A., Jimmieson, N. L., & Rudolph, C. W. (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. doi:10.1002/job.2277
- Zacher, H., & Wilden, R. G. (2014). A daily diary study on ambidextrous leadership and self-reported employee innovation. *Journal of Occupational and Organizational Psychology*, 87(4), 813–820. doi:10.1111/joop.12070
- Zapf, D., Dormann, C., & Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology*, 1, 145–169. doi:10.1037/1076-8998.1.2.145
- Zhu, J., Wanberg, C. R., Harrison, D. A., & Diehn, E. W. (2016). Ups and downs of the expatriate experience? Understanding work adjustment trajectories and career outcomes. *Journal of Applied Psychology*, 101(4), 549–568. doi:10.1037/apl0000073