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Remus Ilies^a, Sherry S. Y. Aw^a & Helen Pluut^b

^a Department of Management and Organization, National University of Singapore, Singapore

^b Department of Organization Studies, Tilburg University, Tilburg, Netherlands

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Intraindividual models of employee well-being: What have we learned and where do we go from here?

Remus Ilies^a, Sherry S. Y. Aw^a, and Helen Pluut^b

^aDepartment of Management and Organization, National University of Singapore, Singapore

^bDepartment of Organization Studies, Tilburg University, Tilburg, Netherlands

As societal concern shifts from financial survival towards quality of life issues, both in and outside of the workplace, scholarly interest in employee well-being too has risen greatly in recent years. This greater attention to the antecedents and outcomes of employee well-being, such as job satisfaction, work engagement, and job burnout amongst others, is reflected in the proliferation of theories, constructs, and studies seeking to describe and explain why employees flourish or become exhausted at work, and the effect of employee well-being on individual behaviours and the organization at large. In this article, we provide a selective review of the current state of research in employee well-being, as well as key theories that have been employed in its study, with the aim of providing a critical assessment of the current state of employee well-being research as well as suggest future directions for the field. In particular, we discuss how research adopting intraindividual perspectives in the study of employee well-being can not only add value to our understanding of well-being but also complement the findings from between-individual studies, and offer suggestions for the development of a comprehensive theoretical model that integrates the two perspectives.

Keywords: Employee well-being; Work stress; Intraindividual perspectives.

At a general level, the study of subjective well-being aims to understand how people evaluate their lives, and is concerned with individuals' emotional responses and life domain (e.g., work, marriage) satisfactions as well as their global judgements of life satisfaction (Diener, Suh, Lucas, & Smith, 1999). Affective well-being refers to individuals' emotional experiences or reactions regarding events in one's life (Warr, 1990). Evaluations of well-being may also be cognitive in nature, when a person makes conscious evaluative judgements about his or her level of satisfaction and fulfilment in life. Thus, subjective well-being has both an emotional and a cognitive component (Diener, Oishi, & Lucas, 2003) and may refer to various life domains (Diener et al., 1999). With respect to the work domain, subjective well-being reflects how people feel and think about their working life and how these feelings and thought further influence their lives in general. Work-related subjective well-being is generally defined as the extent to which a person is satisfied with his or her job and experiences frequent positive emotions and infrequent negative emotions at work (Bakker & Oerlemans, 2011). In this article we use the more inclusive term

employee well-being (EWB) to denote not only subjective job evaluations (e.g., satisfaction) and emotions (or affect) but also the quality of employees' psychological experiences while at work, the detrimental effects that excessive work demands can have on employees (e.g., strain and burnout, which diminish EWB), and the influences that experiences and evaluations from the work domain have on employees' broader life experiences and evaluations.

The study of EWB has grown rapidly over the last few decades, with much theoretical and empirical work appearing on constructs such as work engagement (Bakker, Schaufeli, Leiter, & Taris, 2008), job satisfaction (Judge, Heller, & Mount, 2002), and burnout (Maslach, Schaufeli, & Leiter, 2001). Employee well-being constitutes an important determinant of organizational flourishing, through its links with employee turnover (Wright & Bonett, 2007) and employee performance (Wright & Cropanzano, 2000). However, scholarly and societal interest in the topic of employee well-being is perhaps mostly stimulated by people's increasing concern with issues of quality of life. Especially in the United States and other Western societies, the notion of well-being has

Correspondence should be addressed to Remus Ilies, National University of Singapore, Management & Organization, BIZ1 08-53 Mochtar Riady Building, 15 Kent Ridge Drive, Singapore 119245. Email: ilies@nus.edu.sg

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gone beyond financial survival and economic prosperity. It is likely that the societal relevance of employee well-being will also continue to grow in other countries along with their economic development, as individuals are more and more able to satisfy their materialistic needs and turn their attentions towards the search for happiness and the fulfilment of their psychological needs at work.

Traditionally, employee well-being has been studied by examining between-individual differences in constructs that signal flourishing in the workplace, such as job satisfaction, work engagement, thriving, and passion, or in negative indicators such as burnout and workaholism (for a list of constructs, see e.g., Bakker & Oerlemans, 2011; Fisher, 2010). It is often argued that such between-individual differences in employee well-being can be explained by stable personality dispositions, and meta-analytic evidence indeed suggests that personality traits are strong correlates of well-being (Judge et al., 2002; Steel, Schmidt, & Shultz, 2008). Other key determinants of employee well-being concern organizational factors related to the job. Research on the Job Demand-Control(-Support) model (see Van Der Doef & Maes, 1999) and the Job Demands-Resources (JD-R) model has shown that high job demands have detrimental effects on employee well-being yet these detrimental effects may be buffered by job control, social support, or other resources on the job (Bakker & Demerouti, 2007; Van Der Doef & Maes, 1999). Thus, EWB is influenced by both personal and situational factors.

Concerning the outcomes of EWB, abundant research is available on the consequences for both workers and organizations. For organizations, EWB constructs are important for understanding work behaviour because enhanced well-being leads individuals to contribute to rather than withdraw from their work roles. A number of reviews and meta-analyses show that happy workers are better organizational citizens (i.e., show more organizational citizenship behaviours; Ilies, Fulmer, Spitzmuller, & Johnson, 2009), are more willing to stay with their employer, show less counterproductive work behaviours, are less often late and show up for more days of work (Danna & Griffin, 1999; Harrison, Newman, & Roth, 2006; Lyubomirsky, King, & Diener, 2005). Moreover, in the context of the happy-productive worker thesis, findings from between-individual research indicate that employee well-being may increase individual job performance (Judge, Thoresen, Bono, & Patton, 2001) as well as organizational performance (Taris & Schreurs, 2009). Thus, employee well-being (or a thriving and engaged workforce) enables organizations to capitalize on their human capital.

For individuals, well-being at or from work affects their quality of life because engagement in work comprises a substantial part of peoples' lives. Furthermore, work-related well-being spills over to other life domains (Ilies, Wilson, & Wagner, 2009; Sirgy, Efraty, Siegel, & Lee, 2001) and is related to health risk behaviours and mental health (Wilson, DeJoy, Vandenberg, Richardson, &

McGrath, 2004). When impaired well-being (e.g., frustration and anger, negative attitudes) is brought home from work, this spillover may result in a loss spiral due to the reciprocal relationships among work-related stressors, exhaustion, and work-home interference (Demerouti, Bakker, & Bulters, 2004). Thus, findings from between-individual research suggest that fostering EWB is in the best interest of both employees and employers.

Besides research on between-individual differences in EWB, in the last decade and a half or so, a number of organizational scholars have contended that between-individual research is limiting because it ignores within-individual variation in well-being states and in their antecedents and consequences (see Ilies, Schwind, & Heller, 2007). That is, many aspects of EWB (e.g., job satisfaction; Ilies & Judge, 2002) can be conceptualized as dynamic states that exhibit substantial variation within the same person from one moment to another or from one day to another. The alternative is therefore to study intraindividual fluctuations in well-being over time. Scholars have acknowledged that many psychological constructs have both a dispositional or enduring component and a state-like component (e.g., job satisfaction, Ilies & Judge, 2002, 2004; work engagement, Sonnentag, Dormann, & Demerouti, 2010), and they can be measured as such depending on the research question one is interested in (Allen & Potkey, 1981). Between-individual research that conceptualizes well-being constructs as stable individual characteristics aim to identify why one person is more satisfied than another, for example. In contrast, within-individual research that treats well-being constructs as fluctuating states is rather interested in examining why one person feels more satisfied on some days than on other days.

The intraindividual approach can, for instance, help us to understand why people who generally experience positive emotions on the job are sometimes having a bad day. Examining the work-related states of employees in real time or on a daily basis allows researchers to identify proximal predictors (or day-to-day triggers) of well-being constructs. Researchers who adopt intraindividual study designs can capture the effects of episodic situational influences on well-being and also examine whether interactions among situational (time-varying) and person-based constructs predict well-being. Furthermore, considering fluctuations in EWB over time allows researchers to examine processes that are inherently manifested at the intraindividual level (e.g., affect spillover from work to home). Thus, we believe that the study of within-individual fluctuations extends and informs the study of between-individual differences and that researchers should see these perspectives as complementary to each other.¹

¹In the final section of the manuscript, we will recommend that these two perspectives should be more effectively linked to one another, and ideally they should be integrated theoretically in a comprehensive multilevel model of EWB.

Studying intraindividual fluctuations requires from researchers that they adopt momentary assessment research methods. Such methods have been generally referred to as experience sampling methodology or ecological momentary assessment (EMA). In experience sampling studies, people are asked to respond to the same set of questions once or several times a day, for a number of successive days (typically over a period of one or two weeks). Care must be taken to ensure that measurement scales in daily surveys are adapted to the appropriate time frame in terms of item wording and instructions. Showing considerable overlap with experience sampling methods, diary designs involve the assessment of different sets of study variables across multiple measurement occasions throughout the day, and participants' daily responses are sampled repeatedly over several days. Both in diary and experience sampling studies, people provide real-time reports on their experiences and events.

A "near real-time" alternative is offered by experience reconstruction methods. The day reconstruction method (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004) and the event reconstruction method (Grube, Schroer, Hentzschel, & Hertel, 2008) are survey methods that aim to capture daily life through asking people to recall recent episodes that occurred on the previous day(s) and then reflect on the positive and negative feelings that accompanied each of these episodes. Reconstruction methods are said to be less invasive than diary or experience sampling methodology because respondents do not have to interrupt their job duties in order to rate momentary experiences. For further information on the core features of these intraindividual designs, technological and analytical considerations, some of the difficulties and research opportunities when conducting intraindividual research as well as a discussion of example papers that adopted such designs, we refer the reader to articles and chapters that describe the methodology in more detail (see Beal & Weiss, 2003; Bolger, Davis, & Rafaeli, 2003; Dimotakis, Ilies, & Judge, 2013; Hertel & Stamov-Roßnagel, 2013).

THEORETICAL APPROACHES TO EMPLOYEE WELL-BEING

In order to further our understanding of employee well-being, numerous theories and models have been put forth in the literature, each seeking to describe and explain how various job characteristics and situational or personal factors influence individuals' experience of well-being states and satisfaction or attitudes towards their work. Among these are the Affective Events Theory (AET; Weiss & Cropanzano, 1996), Conservation of Resources theory (COR; Hobfoll, 1989), the stressor-detachment model (Sonnentag & Fritz, 2015), job demands-control theory and job demands-resources theories (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Karasek, 1979), as

well as a family of theories specifically addressing the work-home interface, such as role theory (Pleck, 1977), conflict theory (Zedeck & Mosier, 1990), and the work-home resources model (W-HR; Ten Brummelhuis & Bakker, 2012).

In the following sections, we first briefly describe these theoretical models and provide a review—selective, admittedly—of the existing literature on EWB that has employed these theoretical approaches. The goal of this section is to provide the reader with some insight into the evolution of intraindividual research, as well as an overview of the research and theories that are currently at the forefront of this area of study, in order to stimulate new thinking regarding the direction of intraindividual research in EWB. Subsequently, we provide a critical assessment of these different theoretical perspectives and of the empirical research that has used them, and then we conclude by providing a set of recommendations for the development of a more comprehensive model of EWB that would increase relevance for employees and organizations alike.

AFFECTIVE EVENTS THEORY, AFFECT, AND JOB SATISFACTION

Weiss and Cropanzano (1996) proposed AET in response to the more traditional conceptualizations of job satisfaction as primarily a cognitive judgement (where employees evaluate various aspects or features of their work environment vis-à-vis an expected standard) that reflects, to a large extent, a stable disposition to either feel satisfied or not with one's job, while somewhat neglecting the affective-feeling component of job satisfaction. Importantly, the AET framework highlights the central role of emotions in influencing employee behaviours, attitudes, and well-being states. According to Weiss and Cropanzano, various work events trigger affective reactions, including frustration, anger, joy, anxiety, and sadness, which directly influence employees' engagement in affect-driven behaviours such as organizational citizenship behaviours or counterproductive workplace behaviours (Brief & Weiss, 2002). In aggregate, work events and experiences and the associated emotional reactions also influence employees' evaluations of their jobs and their well-being. Although in AET job satisfaction is considered a longer-term outcome (compared to mood or affect), because AET acknowledges fluctuations in employee mood states and emotions over time, the theory paves the way for within-individual conceptualizations of employee well-being and affords researchers with another way of thinking about and studying changes in employee well-being.

Examining well-being states and studying their within-individual fluctuations nevertheless reflects an approach that is complementary with previous theorizing that treats employee outcomes such as job satisfaction as

stable, between-individual differences. Individual dispositions are given an important role in AET, as stable personality traits such as positive and negative affectivity are theorized to influence how employees react to events at work and at home, which thus impacts their subsequent emotional experiences, and allows for an integration of both between- and within-individual effects on well-being.

In a study designed to test predictions from AET, Weiss, Nicholas, and Daus (1999) measured affect at work (pleasant and activated mood) four times daily for a period of 16 days and also assessed beliefs and satisfaction about the job with general (one-time) surveys. Their results supported their predictions that general job satisfaction has both affective-feeling and cognitive judgement components by showing that average ratings of pleasant mood and job beliefs independently predicted job satisfaction in a between-individual analysis. Inspired by Weiss et al. (1999), in two studies, Ilies and Judge (2002, 2004) conceptualized and measured job satisfaction as a momentary state and tested both within- and between-individual influences on job satisfaction, attempting to extend AET to predict within-individual fluctuations in state job satisfaction. Indeed, in these and other studies (e.g., Heller & Watson, 2005; Judge & Ilies, 2004), partitioning the total variance in multiple state ratings of job satisfaction showed that about one-third of the variance is caused by within-individual variation, and that affect and job satisfaction have a dynamic (within-individual) relationship across time (e.g., Ilies & Judge, 2002; Judge & Ilies, 2004) yet the influences of affect on job satisfaction dissipate rather quickly over time (Judge & Ilies, 2004). Finally, Ilies and Judge (2004) showed that averaged state job satisfaction ratings converge with general job satisfaction scores as the number of state ratings increased, showing how the within- and between-individual approaches to studying job satisfaction relate to one another.

Using both within-individual EMA designs as well as between-individual longitudinal or cross-sectional designs, research employing the AET perspective has since investigated how employee affective reactions influence individual well-being, attitudes, and behaviours (e.g., Carlson, Kacmar, Zivnuska, Ferguson, & Whitten, 2011; Herrbach, 2006; Ilies, Scott, & Judge, 2006). In the work domain, both positive affect and negative emotions were related to employee well-being indicators such as organizational commitment, job satisfaction, and psychological well-being, with some studies finding that affect mediated the relationships between different antecedents (e.g., workplace interactions, job characteristics) and the examined job attitudes (Carlson et al., 2011; Dimotakis, Scott, & Koopman, 2011; Fisher, 2002; Grandey, Tam, & Brauburger, 2002; Herrbach, 2006; Weiss et al., 1999; Wright & Cropanzano, 2000). Furthermore, Weiss et al. (1999) showed that the experience of positive affective states during the workday

predicted job satisfaction above and beyond dispositional positive affectivity, while Judge and Ilies (2004) showed that the strength of association between affect and job satisfaction was related to individuals' trait affectivity. Together, these studies, as well as others (e.g., Hülshager, Alberts, Feinholdt, & Lang, 2013; Scott & Judge, 2006) support the view that job satisfaction has a variable component that is determined in part by individuals' affective reactions and responses (Ilies et al., 2007; Weiss & Cropanzano, 1996).

An experience sampling study by Ilies and colleagues (2006) integrated both within- and between-individual perspectives on AET in examining the influence of positive affect and state job satisfaction on organizational citizenship behaviours (OCB) within individuals, and testing whether personality moderates these influences. These authors followed 62 participants over 15 working days regarding their positive affect, job satisfaction, and OCBs, and also measured their personality traits. The authors found that agreeable employees engaged in helping behaviours more consistently as compared to less agreeable employees, whose OCBs were more dependent on their state positive affect. Rothbard and Wilk (2011) also drew upon and extended AET by investigating whether employees' mood at the start of the workday influences their subsequent appraisal of, and affective reactions to, events, which in turn influences their job performance and productivity. Also, applying AET outside of the work domain, one study found that workload and affect at work had a spillover effect on employees' experience of work-family conflict and affect, which in turn influenced employees' engagement in social behaviours at home (Ilies et al., 2007). Collectively, numerous scholars have utilized AET as a framework for increasing our understanding of how work events and characteristics affect employee emotions and their subsequent well-being and behaviours, generally supporting predictions based on AET and its extensions (Ilies et al., 2007).

THEORIES OF WORK DEMANDS AND EMPLOYEE WELL-BEING

Another area that is highly relevant to the study of EWB concerns theories and models on work demands or stressors, such as the job demands-control and JD-R models (Demerouti et al., 2001; Karasek, 1979) and the broader COR theory (Hobfoll, 1989). Central to this family of theoretical approaches is the role of individual resources, in the forms of social, financial, and personal resources, in mitigating the otherwise debilitating effects of work stressors on employee well-being. Individuals are motivated to acquire and protect resources (from depletion) that serve to protect individuals from the demands of their jobs, by providing them with the means to meet their challenges, cope with stressors, and even in the appraisal of stressors, where individuals with greater

resources at their disposal are less likely to perceive stressors as a threat or be strongly affected by job demands (Demerouti et al., 2001; Hobfoll, 1989). In these theories, employee well-being is enhanced (or at least not harmed) when individuals have sufficient resources to cope with high job demands, meet challenges, and achieve their goals.

According to JD-R and COR theories, demands at work drain individuals' psychological resources, which are used to cope with the demands, and the depletion of resources leaves employees drained and fatigued, diminishing their well-being. Across several studies, the experience of work stress has been consistently found to be associated with poorer outcomes for employees across a gamut of well-being indicators, both psychological and physiological. For instance, workload and psychosocial stressors predicted psychosomatic complaints and sickness, job burnout, fatigue, job dissatisfaction, increased blood pressure and heart rate (which indicates the activation of the biological stress response and the adrenocortical system; McEwen, 2007), and heightened stress levels as measured via cortisol (e.g., Bartholomew, Ntumanis, Cuevas, & Lonsdale, 2014; De Jonge, Bosma, Peter, & Siegrist, 2000; Hakanen, Bakker, & Schaufeli, 2006; Ilies, Dimotakis, & De Pater, 2010; Jacobs et al., 2007).

In a weekly study conducted over a period of three weeks, Bakker and Sanz-Vergel (2013) drew upon the JD-R theory to show that, in a sample of nurses (for whom emotional demands can be seen as challenging and not hindering demands), the within-individual relationship between personal resources (in the forms of self-efficacy and optimism) and nurses' work engagement and flourishing was strengthened when they were faced with high emotional job demands, presumably because they more effectively mobilized their personal resources to meet the challenging demands. Another study adopting EMA methodology integrated AET and COR theory to investigate how events at work deplete or replenish individual resources (Bono, Glomb, Shen, Kim, & Koch, 2013). Supporting their hypotheses, these authors found that positive workplace events, as well as the act of reflecting on these positive events, improved employee well-being indicators, while negative work events and the experience of work-family conflict had negative effects on employee well-being.

Importantly, theory and research on the importance of recovery processes in relation to the effects of work stressors on EWB have been developed based on models consistent with the JD-R and COR theories, such as the effort-recovery model (Meijman & Mulder, 1998) and the stressor-detachment model (Sonnentag, 2010; Sonnentag & Fritz, 2015). Recovery processes refer to the restoration of individual resources that have been depleted due to job stressors and demands, and the return of psychobiological systems to their baseline levels, such as the reduction in cortisol production via homeostatic

systems after encountering a stressor (Meijman & Mulder, 1998). Recovery has been posited to play a key role in helping employees cope with stressful situations and in maintaining their well-being and life satisfaction (Newman, Tay, & Diener, 2014), where employees who are unable to engage in recovery (perhaps due to chronic stressors) demonstrate poorer psychological and health outcomes (e.g., Fritz & Sonnentag, 2005; Geurts & Sonnentag, 2006).

Sonnentag and Fritz (2007) proposed four types of recovery experiences that employees can engage in, namely psychological detachment from work, mastery, control, and relaxation experiences. These experiences help to either restore resources that have been depleted at work through disengaging from the stressor, or build new internal resources that can be used to cope with future stressors, such as increasing self-efficacy or learning a new skill. Supporting the role of recovery, research has found that these recovery experiences were associated with higher life satisfaction, work engagement, OCBs, performance, and the experience of flow (e.g., Binnewies, Sonnentag, & Mojza, 2010; Demerouti, Bakker, Sonnentag, & Fullagar, 2012; Park & Fritz, 2015; Siltaloppi, Kinnunen, & Feldt, 2009), while the lack of recovery was associated with greater exhaustion, work-home interference, and poorer objective measures of health, which included measures of nocturnal heart rate and blood pressure (e.g., Rau, 2006; Sonnentag, Arbeus, Mahn, & Fritz, 2014; Taris et al., 2006).

A recent article by Sonnentag and Fritz (2015) on the stressor-detachment model of recovery (this model posits that psychological detachment from work is the core mechanism underlying recovery) reviewed evidence from both between- and within-individual studies on the relationships between psychological detachment and well-being and strain, and they noted that while the lack of psychological detachment generally predicted greater strain outcomes such as fatigue and negative affect in both within- and between-individual studies (e.g., Derks, Van Mierlo, & Schmitz, 2014; Sonnentag, Binnewies, & Mojza, 2010), the positive effects of successful psychological detachment were less consistent in between-individual studies (e.g., Hahn, Binnewies, & Haun, 2012). Further, they reported that the beneficial effects of psychological detachment (e.g., greater levels of vigour and lower levels of fatigue) were more evident in within-individual studies that focused on the immediate benefits of detachment, which underscores the value of incorporating within-individual designs in the study of EWB.

While the study of work-related well-being has traditionally focused on psychological outcomes such as work engagement, burnout, and job satisfaction, there has been an increasing number of studies incorporating objective, physiological measures to assess employee stress, arousal, and well-being (e.g., Bono et al., 2013; Ilies et al., 2010; Jacobs et al., 2007; Moen, Kelly, & Lam, 2013). These physiological measures include heart rate, blood pressure,

activity levels via a pedometer, cortisol via saliva sampling, and sleep quality and quantity using actigraph watches. Such measures tie in neatly with within-individual research designs, as the adrenocortical system activates quickly in response to a stressor or significant event. Studies that examined these physiological measures have found that negative affect and work stressors are related to increased blood pressure and heart rate (though some studies also report small correlations with work stressors; e.g., Bono et al., 2013; Daly, Delaney, Doran, Harmon, & MacLachlan, 2010; Ilies et al., 2010), which provides some support for their use as employee well-being indicators in the study of work stress.

THE ALLOSTATIC LOAD MODEL OF STRESS

A theoretical model that is specifically focused on physiological reactions to stressors (e.g., cortisol), in addition to psychological (e.g., anxiety) and psychosomatic (e.g., fatigue) responses, is the Allostatic Load (AL) model of stress (McEwen, 2007; McEwen & Stellar, 1993). This model has its roots in the medical and physiology literatures, offering researchers a physiological perspective with which they can investigate stress and its effects. Core to the model are the concepts of allostasis, which refers to the processes by which our physiological systems respond or adapt to stressful events, as well as allostatic load, which refers to the physiological strain or “wear and tear” that arises as a result of chronic activation or the mismanagement of allostatic processes (McEwen, 2007, p.880). Recently, Ganster and Rosen (2013) applied the AL model to the study of work stress and employee well-being, and proposed that the AL model should be used as an overarching framework for the integration of inter- and intra-individual studies that have thus far developed separately in the study of work stress.

The AL model is notable as a framework for the study of work stress as it adopts a multilevel approach to the conceptualization of stress (Ganster & Rosen, 2013). In the AL model, there are three different phases in the stress process that encompass three distinct classes of constructs—primary AL mediators, secondary effectors, and tertiary endpoints (McEwen & Stellar, 1993). These three types of constructs serve to link acute physiological stress reactions to more chronic physiological health outcomes, and further to disease end outcomes. Primary AL mediators are acute responses triggered by the appraisal and encounter of external stressors, and include cardiovascular activation in the form of increased heart rate, as well as the release of cortisol and adrenaline hormones by neuroendocrine systems, which prepare the organism for countering or dealing with the immediate threat. Under conditions of transient stressors, the activation of the primary AL mediators would be reflected as temporary

fluctuations in the adrenocortical systems, as the individual’s heart rate and hormone levels readjust to their original set points (e.g., heart rate and blood pressure return to resting levels).

However, in the event that a stressor becomes prolonged, the chronic activation of these primary AL mediators will result in secondary effector processes, as the original homeostatic set points become dysregulated (Ganster & Rosen, 2013; McEwen & Stellar, 1993). Secondary effector processes are typically more difficult to study, as they are reflected by changes in these homeostatic set points (e.g., higher resting blood pressure or poorer immune system functioning), and as such they would involve the assessment of participants’ physiological systems over a longer time frame, as opposed to the transient fluctuations characteristic of primary AL mediators, or the stable tertiary outcomes. Finally, the continued dysregulation of secondary effector processes culminate in tertiary endpoints or disease outcomes, such as heart disease, obesity, diabetes, and even death.

As an illustration of the AL model, McEwen and Stellar (1993) draw on an analogy of a seesaw to represent our physiological systems. Encountering a threat places strain on the seesaw, which alters its homeostatic balance. This in turn triggers the activation of primary AL mediators in order to combat the stressor, and “balance” the seesaw. According to McEwen and Stellar (1993), a depiction of secondary effectors or prolonged physiological strain in this analogy would be to consider differences in weights on the seesaw, with heavier weights (or even fluctuating weights) representing greater stress and strain on the seesaw over time, as the physiological systems have to adjust more drastically (or repeatedly in the case of fluctuating stressors) in order to achieve allostasis. These secondary effector processes of dysregulation and adjustment exert considerable strain on the seesaw (overall physiological systems), and the subsequent wear and tear of these systems thus predispose individuals to more chronic diseases, or tertiary outcomes.

EMPLOYEE WELL-BEING OUTSIDE THE WORKPLACE

Management scholars have also extended the study of EWB beyond the workplace, investigating how work demands can interfere with the employee’s family life, leading to work–family conflict. Theories that have been applied to the study of the work–family include COR (Hobfoll, 1989), conflict theory (Zedeck & Mosier, 1990), and role theory (Pleck, 1977). The underlying premise of these theories centres around the use of employees’ limited resources in the fulfilment of demands in one role, leaving fewer resources for the individual to meet demands in the other role, thus leading to the experience of conflict and strain (Greenhaus & Beutell, 1985). Indeed, research on work–family interference has

generally supported these assertions, with studies showing that increased job demands and workload led to greater experienced exhaustion and strain (in the form of negative affect), which subsequently resulted in greater work–family conflict (e.g., Bakker, Demerouti, & Dollard, 2008; Chen, Powell, & Cui, 2014; Ilies et al., 2007). Furthermore, the experience of work–family conflict was demonstrated to have negative consequences for employee well-being, including higher reported distress, poor psychological and physical health outcomes, reduced job satisfaction and greater turnover intentions (Allen, Herst, Bruck, & Sutton, 2000; Frone, Russell, & Barnes, 1996; Grandey & Cropanzano, 1999). Finally, in the last decade or so, intraindividual studies supporting day-to-day relationships among job demands and family outcomes or work–family conflict have proliferated (e.g., Butler, Song, & Ilies, 2013; Ilies et al., 2007).

One recent framework that extends earlier resource theories to specifically address work–family processes is the W-HR model (Ten Brummelhuis & Bakker, 2012). This model aims to integrate theories on work–family enrichment—how work and home resources facilitate processes of resource accumulation—with the work–family conflict perspectives. Ten Brummelhuis and Bakker argue that the workplace does not only place demands and stressors on employees but also provides resources for employees, such as developmental opportunities and autonomy. As such, employees can experience gain spirals when resources in one domain facilitate performance in another domain, thus increasing the overall level resources by work–family enrichment, but experience loss spirals when demands in one domain (e.g., work) disrupt employees' performance in another domain (e.g., family), resulting in decreased resources and the experience of work–family conflict.

Studies have thus far supported the propositions put forth in the W-HR model, showing that the experience of work–family conflict or enrichment is dependent on individuals' personal resources and their experience of resource loss or resource gain (Chen & Powell, 2012; Clark, Michel, Stevens, Howell, & Scruggs, 2014). While these between-individuals studies are valuable in providing support for the model, an intraindividual perspective should complement this research, and seek to offer integrative support for the model. For instance, Ilies, Keeney, and Scott (2011) employed an experience sampling design to investigate work–family interpersonal capitalization (sharing positive work experiences in the family), and found that on days when employees shared positive events at work with their spouse or partner at home (i.e., they capitalized on positive work events), they had higher job satisfaction and this influence was above and beyond the effects of the positive events themselves. These results support the idea of gain spirals that were discussed in the work–home resources model and COR theory, underscoring the potential of intraindividual studies in research on the work–family interface and employee well-being. Yet much more could be done in terms of testing the work–home

resources model in a more comprehensive manner (e.g., including both conflict and processes, considering various types of demands and resources, etc.).

CRITICAL ASSESSMENT OF INTRAINDIVIDUAL RESEARCH ON EWB

As the preceding review of theoretical models used to study intraindividual variations in EWB clearly shows, although more recent models do address intraindividual processes (e.g., the JD-R; Demerouti et al., 2001), a unifying framework for guiding intraindividual research on EWB has been lacking. Furthermore, the theoretical approaches for studying EWB within individuals and the empirical research on this topic are lacking integration in several important respects. First, positive and negative influences on EWB are seldom examined in the same study; furthermore, positive and negative processes or influences are either treated as being independent (e.g., work–family conflict and enrichment in the W-HR, see propositions 5 and 6 in Ten Brummelhuis & Bakker, 2012) or are assumed to interact at the same level of conceptualization/analysis (e.g., generally high levels of demands increase learning in the presence of generally high levels of control in the job demands-control model; Karasek, 1979).

As we explain in more detail later, it is in fact likely that qualitatively different factors influencing EWB (e.g., demands and resources) have positive or negative influences depending on one another—they interact—but their interaction may be more complex than previously thought, as they operate across two different levels of analysis. The AL model of stress (McEwen, 2007), for example, suggests that repeated exposure to high daily workloads would result in longer-term negative consequences (e.g., cardiovascular or metabolic changes) due to the prolonged activation of primary mediators (e.g., fatigue, anxiety); this suggests that high variability in intraindividual levels of workload (an intraindividual process parameter) could explain interindividual differences in well-being (Ilies, Huth, Ryan, & Dimotakis, 2015), or perhaps an index of variability could interact with structural resources (either contextual or personal; these are conceptualized as interindividual constructs; see Ten Brummelhuis & Bakker, 2012) in influencing well-being. Although this is not addressed in the AL model of stress, we would venture to predict that repeated exposure to high workloads could also have *positive* long-term influences on employees, leading to the development of resiliency and self-efficacy, with adequate recovery between exposures and provided that ample resources are available to employees, as we explain in more detail in the section on recommendations for theory development and future research below.

Related to the preceding argument about the levels of conceptualization and analysis, theoretical models used to predict intraindividual changes in or influences on EWB are in fact not much different, qualitatively, from those describing interindividual differences. That is, there are no models that specifically consider parameters of intraindividual variation (e.g., variance, thresholds, frequency, etc.) in their theoretical predictions, examine interactions across two different levels of analysis (as explained above), or consider the substantive role of time as an independent (or moderating) variable in the processes influencing EWB. Also, previous intraindividual research has adopted varying measurement timing strategies (e.g., measurements multiple times a day, once a day, once a week) without much theoretical basis for determining the frequency of measurement or much attention given to the time lags between the measurement of constructs that are related to each other. Again, we believe this has been caused by the fact that researchers have been basically using theory explaining interindividual differences in EWB to develop intraindividual hypotheses; as a result, issues surrounding timing of measurements would have been, of course, of lesser importance. Given the state-like nature of the well-being constructs assessed in intraindividual research, frequent assessments are said to provide more ecologically valid measurements. But what is the appropriate time lag between measurement moments? Is it possible to provide a theoretical basis for determining such time lags?

Importantly, even though recent models of work demands or work and family (JD-R and W-HR) do address both transient (manifested across time) and longer-term processes, again, these two types of processes are not connected. This is unfortunate in several respects. First, one may question the practical value of predicting intraindividual fluctuations in well-being; if changes in EWB indicators are episodic yet happen around the same characteristic average levels, why should practitioners be interested in finding out what produces these deviations? Relatedly, if the research findings from within-individual research have no longer-term consequences (e.g., subjective well-being or health) then why should we keep examining within-individual models? As far as we are concerned, we do believe that this research and its findings are theoretically important because they lead to a better understanding of the psychological or physiological processes that influence EWB (compared to between-individual research alone). However, we question whether there is any applied value in these findings, and we propose that linking parameters of intraindividual processes of EWB to longer-term consequences can increase both the theoretical and practical value of intraindividual research. In the following section, we give some recommendations for doing so, and for developing more integrative theoretical models that explain intraindividual

variation in EWB states. In addition, we consider the longer-term implications of the daily experience of work for employees' well-being.

RECOMMENDATIONS

First and foremost, as we already mentioned, we recommend that theoretical models using specific consideration of intraindividual processes explaining EWB, and of the role of time in these processes, should be developed (as opposed to adapting theoretical models explaining between-individual differences in EWB). In more specific terms, such models should take advantage of the richness of experience-sampling data that are typically collected for within-individual studies of EWB by specifying, for example, sensitization–satiation effects like those described by Wickham and Knee (2013) in their paper on temporal processes in diary studies. A sensitization effect to interpersonal conflict at work—an interpersonal job demand known to affect employees on a daily basis (Ilies, Johnson, Judge, & Keeney, 2011)—would imply that experiencing conflict at work on certain days would sensitize employees to interpersonal conflict on subsequent days (such an effect is tested by examining the interaction between conflict on day $d - 1$ and conflict on day d in predicting affective reactions or strain).² Of course some employees are dispositionally more sensitive to conflict (Ilies, Johnson, et al., 2011) and some group- or organization-level characteristics may make reactions to conflict more or less pronounced (e.g., climate, team phase; Bradley, Postlethwaite, Klotz, Hamdani, & Brown, 2012; Farh, Lee, & Farh, 2010), effects that can be tested with cross-level interactions. For constructs, such as resources, that can be conceptualized both as transient (daily) and stable, research could examine at what level of conceptualization do they work best in alleviating stress or enhancing well-being.³

As we already alluded to, building integrative conceptual models that link intraindividual variations in time-varying factors (e.g., job demands and resources) and the parameters of these (e.g., variance, threshold levels, ranges, etc.) to longer-term outcomes holds great promise for future theory and research on EWB. The AL model offers a starting point for such integrative models, because of its linking of short-term acute stress reactions to longer-term outcomes. But the AL model is a model of stress and not of well-being, and thus it

²An example of a satiation effect would be a negative effect of the interaction between social support on day $d - 1$ and social support on day d in predicting job satisfaction, for example, in the presence of a positive main effect for social support on day d , indicating a diminishing positive effect across days.

³Examine whether the buffering effects of resources on the effects of work demands on well-being are best captured via intraindividual interactions among time-varying resources and time-varying demands or via cross-level interactions between time-varying demands and person-level (time-invariant) resources.

comes with limitations if applied to the study of EWB. Earlier we described the seesaw analogy put forward by McEwen and Stellar (1993) to illustrate the effects of primary processes on secondary (longer-term) effects in the AL model. In this illustration, even though the seesaw is balanced and it can serve its purpose with various weights, the higher the (balanced) weights the higher the strain is exerted on the seesaw over time. Although this is a useful analogy, it is perhaps inspired by the physical sciences, with the concepts of *load*, *stress*, and *strain* borrowed from structural engineering and materials sciences (e.g., Lazarus, 1993), and thus points to a limitation of the AL model, at least in its application to the study of EWB.

That is, unlike built structures and materials, humans can and do develop their capabilities overtime. Unlike the seesaw, athletes get stronger and faster with training such as by lifting heavy weights or by repeatedly “stressing” their cardiovascular and muscular systems in aerobic training, while having proper nutrition and rest (i.e., adequate resources). Similarly, over time, people can and do become more resilient and self-efficacious when they have adequate resources available to them (e.g., Bandura, 2000; Luthans, Avey, Avolio, & Peterson, 2010). Then perhaps the time is right for developing a multilevel theory of EWB that explains not only how repeated exposure to demands and stressors can lead to strain and disease (as the AL model does) but also how such repeated exposure can lead to the development of personal resourcefulness (e.g., self-efficacy and resilience). Although some isolated elements of such theory do appear in existing models of EWB, such as the JD-R (Bakker & Demerouti, 2007; Bakker & Sanz-Vergel, 2013), we believe that a comprehensive theoretical specification of the multilevel relationships among intraindividual variation in exposure to demands and stressors and longer-term health and well-being outcomes, both positive and negative, is currently lacking.

It is our view that besides positive work experiences and events, or resources such as autonomy or social support, workers also need to repeatedly experience demands such as high time pressure, high workloads, and sometimes conflict in order to develop their capabilities, of course given that they can adequately recover between such repeated exposures (returning to the analogy with athletic performance, athletes do not get stronger and faster only by resting and eating). The additive and interactional effects of these different classes of work factors and experiences, at different levels of analysis (intra- and interindividual) and in different conceptualizations (general or average levels, variance, etc.) should all be included in a comprehensive model of EWB that links intraindividual processes to both positive (e.g., satisfaction, self-efficacy and resiliency) and negative (e.g., strain, depression and cardiovascular disease) long-term outcomes. Such a model would help advance the literature on EWB by stimulating new and interesting

research on the topic, and hopefully would lead to meaningful findings that would be personally relevant for employees and useful to managers and organizations.

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