Chapter 15

Work Engagement

A Critical Assessment of the Concept and Its Measurement

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Today, engaging employees is a critical agenda for organizations worldwide. Although the origin of the term is not entirely clear, most likely the Gallup Organization coined "employee engagement" in the 1990s (Buckingham & Coffman, 1999). Precisely in that period, an organization's human capital became increasingly important because of the increase in knowledge work. Moreover, more work had to be done with fewer people, among other things. Therefore, it became increasingly important for organizations to employ workers who were able and willing to invest in their jobs psychologically. In other words, they needed employees who, instead of merely bringing their bodies to work, bring their entire selves to work. Perhaps not so coincidentally, around the same time, the first scholarly article about engagement appeared as a new approach to employee motivation (Kahn, 1990). Yet, it took about a decade before the topic was picked up in academia.

This chapter clarifies the concept of work engagement as well as how it is assessed using self-report questionnaires. Although "work engagement" and "employee engagement" are typically used interchangeably, we prefer the former because it is more specific and refers to the individuals' relationship with work. In contrast, "employee engagement" – commonly used in business and human resource management – also includes the relationship with the organization, which blurs the distinction with established concepts such as organizational commitment and extra-role behavior.

Assessing their employees' levels of work engagement is important for organizations because this is ultimately related to their future financial business performance (Schneider et al., 2018). Moreover, levels of work engagement can be fostered by organizational measures, such as job and personal resources building (Knight et al., 2017). Not surprisingly, consultants have successfully marketed the concept together with their own pro-

prietary employee engagement surveys. As a result, particularly larger organizations regularly monitor engagement levels of their employees and use this information as input for their HR and managerial policies to promote work engagement and ultimately business success (Attridge, 2009).

This chapter addresses five issues: (1) the nature of work engagement, (2) a model for understanding work engagement, (3) the Utrecht Work Engagement Scale, (4) questionnaires of limited applicability, and (5) practical use of work engagement questionnaires.

The Nature of Work Engagement

Everyday colloquial connotations of engagement refer to involvement, commitment, passion, enthusiasm, absorption, focused effort, zeal, immersion, dedication, and energy. In a similar vein, the Merriam-Webster dictionary describes the state of being engaged as "emotional involvement or commitment" and as "being in gear." However, neither practitioners nor scholars agree on the conceptualization of engagement to work. Consequently, different perspectives on work engagement exist both in business and in academia.

Work Engagement in Business

Virtually every major HR consultancy firm offers tools to assess and improve levels of what is commonly called employee engagement. Almost without exception, these firms claim to have conclusive and compelling evidence that employee engagement – as measured by their own tools – increases profitability through higher productivity, sales, customer satisfaction, effectiveness, employee retention, and so on. However, except for the Gallup Organization (Harter et al., 2002), this claim has not been evidenced by publications in peer-reviewed journals. Although the descriptions of work engagement of leading HR consultancy firms such as Towers Perrin, Mercer, Hewitt, and BlessingWhite may differ at first glance, a closer look reveals that, in essence, they define employee engagement as a blend of three existing concepts (Schaufeli, 2014): (1) job satisfaction, (2) extra-role behavior (i.e., discretionary behavior that promotes the organization's effective functioning), and (3) commitment to the organization and its goals, more particularly, emotional attachment to the organization (affective commitment) and the desire to stay with the organization (continuance commitment). Hence, how business conceptualizes employee engagement comes close to putting old wine in a new bottle.

Work Engagement in Academia

Based on over 200 eligible publications, Shuck (2011) reviewed academic definitions of work engagement and distinguished four approaches:

- *The needs-satisfying approach.* Kahn (1990) defined personal engagement as the "harnessing of organization members' selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally, and mentally during role performances" (p. 694). He conceptualized personal engagement as the em-

ployment and expression of one's preferred self in task behaviors. Although important for theoretical thinking, this approach has only occasionally been used in empirical research. According to a recent systematic review of 172 high-quality papers on work engagement, Kahn's conception was used in only 6 % (k=11) of the cases (Bailey et al., 2017). The operationalization of Kahn's concept of personal engagement is discussed in the section about questionnaires with limited application.

- *The burnout-antithesis approach.* Rooted in occupational health psychology, this approach views work engagement as the positive antithesis of burnout. According to Maslach and Leiter (1997), work engagement and burnout are endpoints of a single continuum. The second, alternative view considers work engagement as a distinct concept that is negatively related to burnout. Work engagement, in this view, is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Salanova et al., 2002, p. 74). Vigor refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption refers to being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties detaching oneself from work. According to Bailey et al. (2017), an overwhelming 86 % of all academic research on work engagement used the Utrecht Work Engagement Scale (UWES), a questionnaire based on the definition of work engagement as a combination of vigor, dedication, and absorption. Because of its predominance, in this chapter, we focus mainly on the UWES.
- *The satisfaction-engagement approach.* According to the Gallup Organization, "The term employee engagement refers to an individual's involvement and satisfaction with as well as enthusiasm for work" (Harter et al., 2002, p. 269). Thus, like the definitions of other consultancy firms, Gallup's work engagement concept seems to overlap with well-known constructs such as job involvement and job satisfaction. This is illustrated by the fact that, after controlling for measurement error, Gallup's Q^{12} correlates almost perfectly (r=.91) with a single item that taps job satisfaction (Harter et al., 2002), meaning that both are virtually identical. Furthermore, rather than the *experience* of work engagement, the Q^{12} measures its *antecedents* in terms of perceived job resources. This is also acknowledged by Harter et al. (2002, p. 269), who stated that the items of the Q^{12} gauge "employee perceptions of the quality of people-related management practices in business units" (e.g., "My supervisor, or someone at work, seems to care about me as a person"). For these obvious reasons, we do not further consider this approach in this chapter.
- *The multidimensional approach.* Saks (2006) defined employee engagement as "a distinct and unique construct consisting of cognitive, emotional, and behavioral components that are associated with individual role performance" (p. 602). This definition is quite like that of Kahn (1990), because it also focuses on role performance at work. The innovative aspect is that Saks (2006) distinguishes between "job engagement" (performing one's work role) and "organizational engagement" (performing one's role as a member of the organization). Although both are moderately related (r=.62), they seem to have different antecedents and consequences. Despite its intuitive appeal, the research community has hardly taken up the multidimensional approach, which is used in only 3 % of the empirical papers (Bailey et al., 2017). The measure based on

Saks' (2006) concept of employee engagement is discussed below in the section about questionnaires with limited application.

Taken together, the approaches noted above each focus on a different aspect of work engagement: (1) its relationship with role performance, (2) its positive, energetic nature as opposed to burnout, (3) its representation in resourceful jobs, and (4) its relationship with both the job as well as with the organization.

A Model for Understanding Work Engagement

To assess the content validity of measures that tap work engagement, we need a conceptual framework that includes its antecedents and consequences. Bakker and Demerouti (2007, 2008) developed a model of work engagement that may serve the purpose of a nomological network for work engagement. Figure 15.1 displays the motivational process of the job demands-resources (JD-R) model.

Accordingly, job resources have a motivational potential and lead to positive organizational outcomes, via work engagement (Schaufeli & Bakker, 2004a). The JD-R model is, with 38 %, the most frequently used model in publications on work engagement, against only 4 % for the needs-satisfying approach (Bailey et al., 2017). By the way, most studies do not use any conceptual model at all.

According to the JD-R model, job resources, such as job control, social support, and career opportunities, may either play an intrinsic motivational role because they foster employees' growth, learning and development, or an extrinsic motivational role because they are instrumental in achieving work goals. In addition, the JD-R model postulates that job resources become more salient and gain their motivational potential when em-

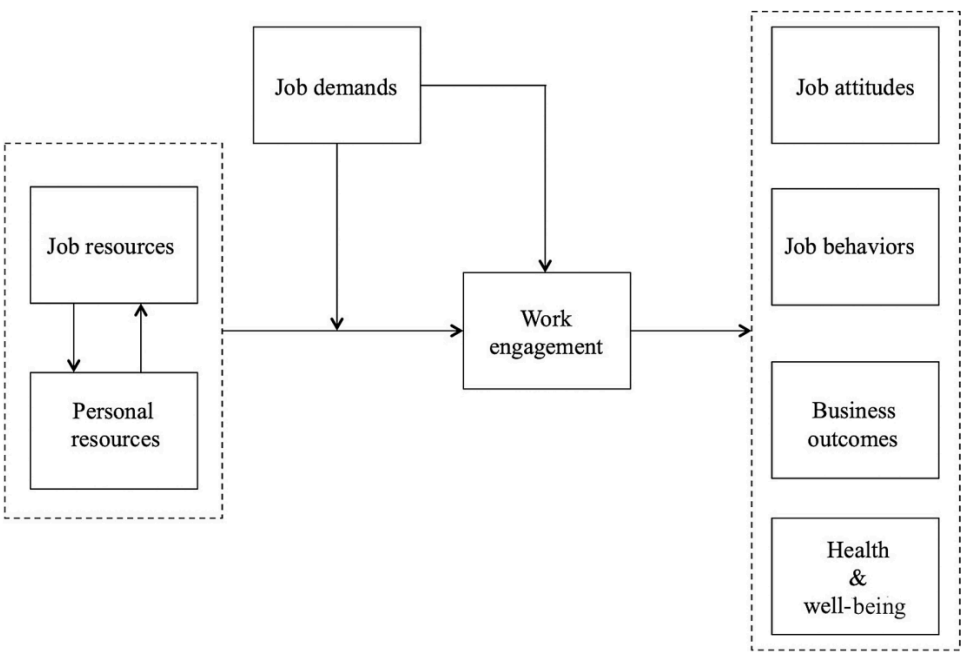

Figure 15.1. A model of work engagement

ployees are confronted with high job demands, such as work overload, role conflicts, and emotional demands (e.g., Bakker et al., 2007). Furthermore, Xanthopoulou et al. (2009a, 2009b) showed that job and personal resources (i.e., positive self-evaluations that refer to an individual's sense of their ability to control and impact upon the environment) are mutually related, and that personal resources are independent predictors of work engagement. Based on Fredrickson's (2001)broaden-and-build theory of positive emotions, Bakker and Demerouti (2008) argued that work engagement boosts performance because it can broaden the employee's momentary thought and action repertoires and to mobilize job and personal resources. Moreover, as we will see below, work engagement has a positive impact on health and well-being and can be distinguished from various organizational outcomes (see Figure 15.1). The latter is at odds with the view of most consultancy firms who define work engagement in terms of these very outcomes. In contrast, this chapter considers work engagement as a psychological state that *drives* employees' behavioral investment of personal energy. That means that work engagement should be theoretically distinguished from task performance, concomitant attitudes, and business outcomes.

The Utrecht Work Engagement Scale (UWES)

The UWES was developed using 30 in-depth interviews with employees (Schaufeli et al., 2001). Based on these interviews, the authors initially formulated 24 items, which were subsequently reduced as a result of preliminary psychometric studies in two independent samples (Schaufeli & Bakker, 2004b). As noted above, the UWES contains three subscales that assess vigor, dedication, and absorption. In addition to the original UWES, which contains 17 items (Schaufeli, Salanova et al., 2002), a shortened version of nine items is also available (Schaufeli, Bakker et al., 2006) as well as an ultrashort version of only three items, including a single item for each dimension of work engagement (Schaufeli et al., 2017). In a separate section, we briefly discuss alternative versions of the UWES: the team-level version, the daily version, and the student version. Over 30 foreign-language versions of the UWES are now available (see www.wilmarschaufeli.nl) and its psychometric features have been reported in peer-reviewed international journals for 22 different countries. (A complete list of publications is available upon request from the first author.) Because of the abundance of studies that use the UWES – Google Scholar produced almost 14,000 hits in April 2020 – in what follows, we focus particularly on literature reviews and meta-analyses.

Factorial Validity

A debate exists about the factorial validity of the UWES. Recently, Kulikowski (2017) carried out a systemic review and evaluated 21 studies on the UWES that used confirmative factor analysis to test its factorial validity. The originally proposed three-factor structure was superior in six studies, whereas this was the case for the one-factor structure in another further six studies. Eight studies concluded that the one- and three-factor structures could be considered equivalent. Only one study failed to confirm either the one- or the three-factor structure of the UWES. From a practical perspective, though, the dimensionality of the UWES is not so relevant because the correlations between the three fac-

tors are usually rather high, exceeding .80 (e.g., Schaufeli, Bakker et al., 2006, using 10 national samples).

Factorial Invariance

Confirmatory factor analyses using the so-called multiple group method, in which samples of two or more countries are simultaneously included, showed that the three-factor structure of the UWES is invariant across nations such as Australia, Belgium, Canada, Finland, France, Germany, The Netherlands, Norway, South Africa, and Spain (Schaufeli, Bakker et al., 2006). In contrast, Klassen et al. (2012) found that the one-factor structure was preferable over the three-factor structure across five national teacher samples. Moreover, the UWES was invariant *within* Western (Canada, Australia) and non-Western countries (Indonesia, China, Oman), but not *across* Western and non-Western countries. Storm and Rothmann (2003) concluded that the equivalence of the UWES is acceptable for white, black, colored, and Indian members of the South African Police Service, and that no evidence was found for item bias in these racial groups. Factorial invariance was generally demonstrated for various occupational groups, such as Dutch (Schaufeli & Bakker, 2004a) and Japanese (Shimazu et al., 2008) white-collar employees and healthcare professionals, Spanish workers and students (Schaufeli, Salanova et al., 2002), and Finnish healthcare workers, educators, and both white- and blue-collar workers (Seppälä et al., 2009). Also, Seppälä et al. demonstrated that the correlated three-factor structure of the UWES was invariant across a time interval of 3 years.

Internal Consistency

A meta-analysis of the original and the short versions of the UWES indicated good internal consistencies for vigor, dedication, and absorption. (Details of this unpublished meta-analysis may be obtained from the first author.) More particularly, analyses across 33 samples (total N=19,940) from nine different countries (Australia, Belgium, Finland, Greece, The Netherlands, Norway, Spain, South Africa, and Sweden) revealed that sample-weighted values for Cronbach's α of all three scales of the original and short versions of the UWES exceeded .80. Moreover, Cronbach's α for the composite score exceeded .90.

Stability

An analysis across five samples from three countries (Australia, The Netherlands, and Norway; total N=1,057) revealed that the mean stability coefficient of the original and short versions of the UWES across a one-year time interval is .65 (ranging from .56 to .75). (Details of this unpublished analysis may be obtained from the first author.) A longitudinal study among Finnish dentists spanning 7 years found similar stabilities for the subscales of the UWES ranging from .61 to .65 (Hakanen & Peeters, 2015). Furthermore, Seppälä et al. (2009) found high rank-order stability coefficients, ranging from .82 to .86, for the three scales of the UWES across a 3-year time interval, indicating that the relative ordering of individuals within the sample was largely maintained over time.

Discriminant Validity

Work engagement – as tapped with the UWES – is conceived as a distinct concept that is negatively related to burnout (González-Roma et al., 2006). Yet, meta-analytic findings of Cole et al. (2012) suggest that the UWES assesses the same as the reversed scored Maslach Burnout Inventory (MBI; Maslach et al., 2016). According to Cole et al., this would imply that work engagement is *not* a unique construct. However, Byrne et al. (2016) challenged this implication by applying a more rigorous and appropriate procedure that uses multiple constructs and measures at different time points. They concluded: "[W]e determined empirically that the construct of work engagement is *not* the same as the opposite of the burnout construct" (p. 1219). This conclusion is further supported by a study by Goering et al. (2017) testing a meta-analytic structural equation model (MASEM) that used input data from 10 other meta-analyses on the relationship between burnout and work engagement, including the one of Cole et al. This study not only found a *weak* negative correlation between the UWES and the MBI (r=–.29), but also that both were differentially related to challenge and hindrance demands as well as job resources. In other words, low scores on burnout do not imply high work engagement (and vice versa), and the root causes of burnout and work engagement are different.

Work engagement and workaholism are two forms of heavy work investment. Although, like workaholics, engaged workers work very hard, it seems their underlying motivation differs: Engaged employees are intrinsically motivated, whereas workaholics are characterized by an extrinsic – introjected or identified – motivation (Van Beek et al., 2012). Furthermore, confirmatory factor analyses showed that work engagement and workaholism – assessed as working excessively and working compulsively – are two distinct constructs (Schaufeli, Taris et al., 2006, 2008). However, the absorption scale of the UWES also loads on the latent workaholism factor, suggesting that absorption could also entail a compulsive tendency to work. In a similar vein, Andreassen et al. (2007) found that work engagement was predicted by enjoyment but *not* by drive, whereas the reverse was true for workaholism. Finally, a study by Mazetti et al. (2018), which included employees' self-reports as well as ratings from their colleagues, showed a considerable agreement between raters for work engagement (r=.59) and workaholism (r=.66). The authors concluded that "the present research corroborates the evidence that work engagement and workaholism represent two conceptually and empirically distinct forms of heavy work investment" (p. 38).

A meta-analysis of 13 studies found, on the one hand, correlations (corrected for unreliability) between work engagement – as measured with the UWES – and job satisfaction, job involvement as well as, on the other hand, affective organizational commitment of .55, .51, and .59, respectively (Christian et al., 2011). The authors conclude that "work engagement is unique although it shares conceptual space with job attitudes" (p. 120). This is confirmed by another meta-analysis that found a correlation of .77 between work engagement and a *composite,* latent measure of satisfaction, involvement, and commitment, dubbed the "A-factor" (Newman et al., 2010).

Conclusion

As expected, it appears that the UWES consists of three subscales (i.e., vigor, dedication, and absorption), and that this three-factor structure is generally – but not always – invariant across nations, race as well as across occupational groups and time. However, the three subscales are highly correlated, so it is recommended to use one composite score, particularly for practical purposes. Moreover, the three scales of the UWES as well as the composite questionnaire are sufficiently internally consistent and the scores are relatively stable across periods up to 7 years, which agrees with the definition of work engagement as a persistent psychological state. Finally, it seems that – despite some overlap – the UWES can be discriminated from measures tapping burnout, workaholism, and job attitudes such as job satisfaction, job involvement, and affective organizational commitment. In short: it seems that the UWES is a psychometrically sound instrument with sufficient factorial validity, factorial invariance, internal consistency, stability, and discriminant validity.

Content Validity of the Utrecht Work Engagement Scale (UWES)

Only very few studies have compared the UWES with other work engagement instruments. Byrne et al. (2016) carried out the most comprehensive convergent validity study so far by comparing the UWES with the Job Engagement Scale (JES; Rich et al., 2010 – see below). Using five independent samples, they concluded that the UWES and the JES are moderately positively related to each other, but that they measure different aspects of work engagement, whereby the UWES assesses a broader domain than the JES (see below).

Job Demands and Job Resources

Halbesleben (2010) carried out a meta-analysis that included 74 unique samples and 45,683 participants to assess the associations between work engagement, and job demands and resources. As expected, job resources (i.e., social support, job control, feedback, and climate) were positively related to work engagement ($\rho = .35$), whereas job demands (i.e., work overload and work-family conflict) were weakly negatively associated ($\rho = -.09$). Recently, Lesener et al. (2019) carried out a meta-analysis including 77 *longitudinal* samples and showed that job demands were not related to work engagement over time, whereas job resources are *reciprocally* related with work engagement. The latter is compatible with the notion of gain cycles; because of their motivational potential, job resources increase work engagement, which, in turn, leads to the accumulation of more resources, and so on (Salanova et al., 2010). A previous meta-analysis using 64 samples (Crawford et al., 2010), made an important distinction between hindering and challenging job demands, whereby the former thwart personal growth, learning, and goal attainment (e.g., role conflict, red tape), while the latter have the potential to promote mastery, personal growth, and future gains (i.e., time pressure, responsibility). Using MASEM, their study showed that hindrance demands were *negatively* ($r = -.19$) and challenge demands ($r = .21$) like resources ($r = .34$), were *positively* related to work engagement. Simi-

lar to the analysis of Halbesleben (2010), undifferentiated demands were virtually unrelated to work engagement (r=–.06). Finally, a recent meta-analysis (k=69, N=32,924) showed that work engagement was positively correlated with various leadership styles, including transformational (ρ=.45), servant (ρ=.40), and authentic (ρ=.35) leadership (DeCuypere & Schaufeli, in press).

Personal Resources

A meta-analysis involving 114 samples and focusing on the link with personality factors showed that, overall, the eight reviewed traits explained 48 % of the variance in work engagement (Young et al., 2018). Moreover, relative weights analysis revealed that positive affectivity was by far the strongest predictor of work engagement (ρ=.62), followed by proactive personality (ρ=.49), conscientiousness (ρ=.39), and extraversion (ρ=.40), respectively, whereas the remaining Big Five traits were less important. Focusing on more malleable personal resources, Halbesleben (2010) found similarly strong meta-analytic associations between work engagement and self-efficacy (ρ=.59) and optimism (ρ=.44). In their systematic review, Bailey et al. (2017) identified 11 studies that found a positive link between work engagement and other multifaceted personal resources, such as psychological capital (i.e., self-efficacy, hope, optimism, and resilience), core-self-evaluation (i.e., self-efficacy, self-esteem, internal locus of control, and emotional stability), hardiness (i.e., commitment, control and challenge), emotional intelligence, personal initiative, and achievement striving.

Outcomes

Four kinds of outcomes that have been associated with work engagement can be distinguished:

- *Attitude-based outcomes.* Not only can organizational commitment be discriminated from work engagement (see above), but work engagement also *predicts* commitment 2 years later, after controlling for commitment levels at baseline (Hakanen et al., 2008). A study using three independent samples showed that work engagement was negatively related to turnover intention, when controlling for burnout (Schaufeli & Bakker, 2004a). Finally, work engagement is positively related to workability, after controlling for prior workability 10 years ago (Airila et al., 2012). In addition, and consistent with this finding, the same study showed that work engagement was negatively related to lifestyle factors, such as BMI and smoking frequency.
- *Behavior-based outcomes*. In their meta-analysis, Christian et al. (2011) confirmed the incremental validity of work engagement by showing that it significantly contributed to task performance and contextual performance, after controlling for job satisfaction, job involvement, and organizational commitment. In addition, they also confirmed that work engagement mediated the relationship between job and personal resources, on the one hand, and performance, on the other hand. Moreover, work engagement has been *negatively* associated with counterproductive work behavior (Balducci et al., 2011), self-reported medical errors (Prins et al., 2010), and safety behaviors (meta-analysis; Nahrgang et al., 2011), and *positively* with active learning (Bakker et al., 2012),

supervisor-rated and coworker-rated performance (Halbesleben & Wheeler, 2008), creativity (Bakker et al., 2020), and personal initiative (Salanova & Schaufeli, 2008). Also, work engagement *predicts* registered future sickness absence (Schaufeli et al., 2009). Finally, the UWES can be used as a screening device to identify employees who are at risk for future long-term mental sickness absence (Roelen et al., 2015).

- *Business outcomes*. Work engagement is positively associated with customer satisfaction in the hospitality industry (Salanova et al., 2005), university departments' research productivity (Christensen et al., 2019) as well as business growth and business success in entrepreneurs (Gorgievski et al., 2014). Recently, Friesenbichler and Selenko (2017) found that managers' level of work engagement was positively related to firm performance (labor productivity), after controlling for various firm-based variables, such as type of industry and ownership. Although most outcomes that were included in the previous studies are objective, all studies used a cross-sectional design. However, work engagement also predicts work-unit innovativeness (Hakanen, Perhoneini et al., 2018) and clinical productivity (Hakanen & Koivumäki, 2014) of Finnish dentists, as well as petroleum company's work-unit service performance (Chen et al., 2018), restaurant's daily revenues (Xanthopoulou et al., 2009b), and future financial and personal success of entrepreneurs (Dijkhuizen et al., 2018).
- *Health and well-being outcomes*. Work engagement not only predicts future self-reported outcomes, such as low levels of depressive symptoms and life satisfaction (Hakanen & Schaufeli, 2012), low levels of psychological distress and physical symptoms (Shimazu et al., 2015), and low levels of burnout and job satisfaction (Hakanen, Peeters et al., 2018), but work engagement is also an important predictor of the nonoccurrence of major depression diagnosis (Imamura et al., 2016). Moreover, prospective cohort studies showed that engaged employees had low levels of C-reactive protein, which is an established risk factor for cardiovascular disease (Eguchi et al., 2015). Finally, work engagement is associated with healthy, cardiac autonomic activity (Seppälä et al., 2012). These last two studies seem to suggest that work engagement fosters cardiovascular health.

The associations described above refer to direct relationships between work engagement and various types of outcomes. Yet, it is important to note that several studies also confirmed that work engagement *mediates* the relationship between resources, on the one hand, and outcomes, on the other hand, as Figure 15.1 shows (e.g., Bakker et al., 2020; Chen et al., 2018; Nahrgang et al., 2011; Schaufeli & Bakker, 2004a; Schaufeli et al., 2009).

Job Crafting

Although research has provided considerable evidence for the contention that job characteristics influence employee work engagement, it is important to recognize that employees can also actively modify their own job demands and resources. This process is known as "job crafting," defined as "the physical and cognitive changes individuals make in their task or relational boundaries at work" (Wrzesniewski & Dutton, 2001, p. 179). Thus, employees may proactively change the content of their work, seek or avoid others with whom they interact (colleagues, suppliers, clients), or give a different meaning to

their work activities. Tims, Bakker, and Derks (2013) developed the JD-R approach of job crafting and argued that individuals can proactively change the characteristics of their work to achieve a better person-job fit. Accordingly, job crafting can take the form of increasing social job resources (e.g., asking for feedback, seeking social support), increasing structural job resources (e.g., negotiating autonomy, developing competence through training), increasing challenge job demands (e.g., starting new projects), or decreasing hindrance job demands (e.g., decreasing emotionally demanding interactions with others at work). Meta-analytic findings indicate that job crafting is an important predictor of work engagement (Rudolph et al., 2017), particularly expansion-oriented job crafting behaviors through which employees increase their job challenges and resources. Several interventional studies showed that employees can learn to craft their jobs through training, and that the enactment of job crafting behaviors was related to work engagement and other positive outcomes including job performance (e.g., Van Wingerden et al., 2017; Gordon et al., 2018).

Conclusion

The content validity of the UWES is demonstrated by numerous studies that confirmed the relationships displayed in Figure 15.1. More specifically, cross-sectional evidence suggests that hindrance demands are negatively related to work engagement. In contrast, challenge demands, job resources, personal resources, and various leadership styles (e.g., transformational leadership) are positively related to work engagement. Moreover, longitudinal evidence indicates that job resources and work engagement are reciprocally related, which suggests the existence of so-called gain cycles. Work engagement predicts various attitudinal and behavioral outcomes, such as organizational commitment, workability, and sickness absence, as well as business outcomes such as creativity, productivity, service performance, and financial success. Work engagement also predicts various health and well-being outcomes such as cardiovascular health, life satisfaction, the nonoccurrence of major depression, and low levels of psychological and physical health. Finally, employees may actively modify their own job demands and resources (i.e., job crafting), which has a positive impact on work engagement. Studies that evaluate the effects of job crafting training interventions have shown that the UWES is sensitive for detecting positive changes in levels of work engagement.

Special Applications of the UWES

Collective, Team Version

Costa et al. (2014) have proposed that teamwork engagement is functionally equivalent to individual work engagement. Therefore, they define teamwork engagement as a shared, fulfilling, and motivational state of work-related well-being, characterized by team vigor, team dedication, and team absorption. Work engagement may emerge at the team level through various social processes, including emotional contagion, role modeling, and adherence to social norms. Thus, energetic and enthusiastic team members influence each other so that levels of vigor, dedication, and absorption converge. Empirical evidence is still limited, but the first studies suggest that teamwork engagement results

particularly from team job resources and team job crafting behaviors (e.g., Tims, Bakker, Derks et al.,2013). Also, teamwork engagement has been related to team job performance (e.g., Costa et al., 2015; Torrente et al., 2012; Rahmadani et al., 2020).

Daily Approach

Daily work engagement refers to transient states of vigor, dedication, and absorption that exist in a given moment and that fluctuate within the same individual over short periods of time (e.g., day to day or hour to hour; Sonnentag et al., 2010). Daily work engagement can be assessed with the 3- or 9-item version of the UWES, whereby the items are adjusted and refer to the specific "week," "day," or "hour." Breevaart et al. (2012) performed a multilevel factor-analytic study on the daily version of the 9-item UWES. Comparisons of competing models revealed that the multilevel model that captured the interdependency between the two levels of analysis (i.e., between-person and within-person level) was the model that best fitted the data. The three-factor structure of the work engagement construct was confirmed on a day-to-day basis, and it showed a better fit than the one-factor solution. In his review, Bakker (2014) showed that daily fluctuations in job resources explained daily fluctuations in work engagement, partly through their influence on daily personal resources like daily self-efficacy and daily optimism. In addition, daily work engagement was an important predictor of daily task performance.

Student Version

Although students do not "work" in the sense of being employed, they nevertheless carry out structured, goal-directed activities that are compulsory. They follow classes, carry out assignments, and prepare for obligatory exams and tests. Hence, from a psychological perspective, their activities can be considered as "work." And since they may pursue their activities with great energy and determination, the concept of academic work engagement emerged, which can be measured with the student version of the UWES in which "work" has been substituted by "study." The three-factor structure was confirmed for the 17-item (Cadime et al., 2016) as well as the 9-item version of the UWES (Schaufeli, Martínez et al., 2002; Carmona-Halty et al., 2019). As with the original version of the UWES, correlations between the subscales were very high, so a single composite academic work engagement score can be used just as well for practical purposes.

Several studies confirmed the positive relationship between students' engagement and their academic performance, as assessed by their grade point average (GPA; e.g., Schaufeli, Martínez et al., 2002; Ketonen et al., 2016). More specifically, it was found that – after controlling for exhaustion and cynicism – only vigor was associated with GPA (Cadime, Pinto et al., 2016). Moreover, student engagement mediated the relationship between academic resources and GPA (Salanova et al., 2009). Bakker et al. (2015) conducted a weekly diary study among first-year students who filled in a questionnaire twice per week over 3 weeks – during the days they had tutorial group meetings. The tutors evaluated each student's active learning behaviors during these meetings. Results showed that study engagement fully mediated the relationship between personal resources and observed learning activities; study resources (e.g., support, feedback, autonomy) were indirectly positively related to learning activities through study engagement. In addition,

observed learning activities were positively related to the course grade. Finally, a longitudinal study (Ouweneel et al., 2011) suggested that student engagement is reciprocally related to personal resources (i.e., optimism, hope, and self-efficacy). So, taken together, these results with the student version of the UWES map into the model displayed in Figure 15.1 and therefore support its content validity.

Criticisms of the UWES

Although, overall, it seems that the UWES is a sound instrument to assess work engagement, not all that glitters is gold. The UWES has been criticized on three grounds: First, as noted above, it was claimed that work engagement – as assessed with the UWES – overlaps with burnout – as assessed with the MBI. In fact, Cole et al. (2012) argue that engagement is a redundant construct. In a similar vein, others showed that scores on the UWES correlate substantially with job attitudes, such as job satisfaction, job involvement, and affective organizational commitment (Christian et al., 2011). According to Newman et al. (2010), this is not surprising because the content of the items of the UWES resembles the content of other attitude measures. Finally, Meyer (2017) argues at the conceptual level that the definition of engagement that underlies the UWES raises questions about how it differs from satisfaction and commitment. In sum: the discriminant validity of the UWES is not beyond question, both empirically as well as conceptually.

Second, the UWES has been criticized because it lacks a firm theoretical basis (Viljevac et al., 2012), in contrast to the Job Engagement Scale (JES; see the next section), which is based on the seminal work of Kahn (1990) on personal engagement. Indeed, the UWES was developed inductively, based on in-depth interviews with employees and on the notion of work engagement being the positive antipode of burnout. Third, the meta-analysis by Kulikowski (2017) discussed above showed that the factorial validity of the UWES is not completely free from controversy; that is, not all studies confirm its three-factor structure unambiguously. In a somewhat similar vein, this also applies to the factorial invariance of the UWES across nations, races, and occupational groups, which has not been convincingly demonstrated in all cases (see above).

Questionnaires With Limited Application

Kahn's (1990) conceptualization of personal engagement inspired several researchers to develop self-report scales to assess employee engagement. For instance, May et al. (2004) and Rich et al. (2010) developed the Job Engagement Scale (JES), which includes cognitive, emotional, and physical engagement. The wording of the items shows a striking resemblance with those included in the absorption, dedication, and vigor subscales of the UWES, respectively (Schaufeli, 2014, p. 21).

Basing themselves somewhat more loosely on the seminal work of Kahn, Rothbard (2001) distinguished between attention and absorption, whereby the former refers to the cognitive availability and the amount of time one spends thinking about the work role, and the latter refers to being engrossed in the work role. The same applies to Saks (2006), who distinguished between job engagement and organizational engagement that were described as the employee's psychological presence in their job and their organization,

respectively. Finally, the ISA Engagement scale of Soane, Truss et al. (2012) is also inspired by Kahn's conceptualization and includes *i*ntellectual, *s*ocial, and *a*ffective engagement. These three dimensions refer to (1) being intellectually absorbed in work; (2) being socially connected with the working environment and sharing common values with colleagues; and (3) feeling positive about one's work role, respectively. The first and the third dimension of the ISA resemble the absorption and vigor of the UWES, whereas the second dimension has not been considered before.

More recently, and based on a synthetic review of conceptualizations of work engagement, Shuck et al. (2017) proposed the Employee Engagement Scale (EES), which includes cognitive, emotional, and behavioral engagement. These three dimensions refer to an employee's intensity and willingness to invest mentally, emotionally, and behaviorally in positive organizational outcomes. A closer look at the items of these three dimensions reveals that they are reminiscent of absorption, affective organizational commitment, and extra-role behavior, respectively. Like most proprietary engagement measures, the EES can be criticized – at least partly – for putting old wine in a new bottle (Schaufeli, 2014).

It seems that all four operationalizations agree that engagement is a multidimensional construct, and that it includes absorption as its common denominator. Except for the JES, these questionnaires are only sporadically used in academic research (Bailey et al., 2017).

Two studies were carried out that compared the UWES with the JES. The first study used the preliminary, 13-item version of the JES (May et al., 2004) and showed that there is considerable overlap between both instruments. However, both measures could be discriminated from organizational commitment, and the UWES could also be discriminated from job involvement and intention to stay, whereas the JES could not. Moreover, compared to the JES, the UWES showed better predictive validity regarding perceptions of person-job fit and person-organization fit. The authors conclude that, overall, the UWES demonstrated a better validity than the JES.

The second comparative study is more elaborate and includes five samples to study the factor structure of both measures, their patterns of relationships with a host of antecedents and consequences, and the construct-level relationships between engagement and related variables (Byrne et al., 2016). First, the factor structures of the UWES and the more recent 18-item version of the JES (Rich et al., 2010) were each independently confirmed as three-factor structures. Second, both questionnaires were positively related with average correlations between the corresponding subscales ranging between .45 and .64 across the five samples. Third, the UWES and the JES were *not* interchangeable because they displayed different patterns of relationships with six variables, similar relationships with eight variables, and disparate relationships with five of the variables in the nomological network. However, overall, the relationships of the UWES with most variables in the network (e.g., job stress, job performance, strains, organizational commitment, job commitment, and burnout) were stronger than for the JES; this led the authors to conclude that the UWES assesses a broader domain than the JES.

In sum: only the JES is truly based on the needs-satisfying approach of Kahn (1990), whereas three other questionnaires of limited application are more loosely based on this approach, and one questionnaire emerged from a synthesis of the literature. According to the papers in which they were introduced, the psychometric quality of these questionnaires looks promising at first glance, but – except for the JES – this needs to be corroborated in future independent studies.

The Practical Use of Work Engagement Questionnaires

In this final section, we elaborate on which engagement questionnaire to choose in which context, and how to use the UWES for practical purposes.

Which Questionnaire to Use?

Recently, Mackay et al. (2017) tested a meta-analytic path model to examine the incremental validity of work engagement and a higher-order job attitude construct, consisting of job satisfaction, job involvement, and organizational commitment vis-à-vis employee effectiveness (i.e., in- and extra-role performance, turnover intention, and absenteeism). Indeed, they found evidence for moderate incremental validity of work engagement over-and-above the higher-order job attitude constructs as well as the three individual job attitudes. The authors concluded that work engagement " ... represents a quick and efficient way of assessing a key predictor of employee effectiveness and arguably makes the addition of other job attitude measures unnecessary" (p. 116). Also, the authors investigated whether the type of work engagement questionnaire (UWES vs. other instruments) moderated the effects, but that was not the case. Therefore, they recommend the use of the UWES for practitioners because " ... it represents a quick and efficient way of assessing a key predictor of employee effectiveness" (p. 116).

This agrees with the recommendation of Byrne et al. (2016), who – as noted in the previous section – found that the UWES taps a broader domain than the JES. Therefore, they recommend using the UWES in applied settings "where the intention is to assess with a wide net to capture global perceptions across several employee issues" (p. 1218). More specifically, they wrote that: "Practitioners' goals are typically to get a quick reading on how employees feel [...]. Their strategy is not to focus on one construct only, but to gather information on multiple constructs using the most efficient method. When a measure shares substantial content with existing measures and consequently demonstrates high correlations, its strength lies in providing summative information" (p.1218). In contrast, they recommend using the JES in research settings where the aim is to distinguish between concepts. The reason is that the JES has less overlap with associated attitudes than the UWES, rendering it potentially more useful in identifying the edges of the work-engagement construct domain. It should be noted here that Mackay's (2016) meta-analysis did *not* show a systematic difference between the UWES and other instruments including the JES, which might call this recommendation of Byrne et al. (2016) into question.

How to Use the UWES?

Work engagement as assessed with the UWES is regarded as a multifaceted experience; a set of experiences that occur together and refer to the same underlying entity. Hence, the recommendations of Schaufeli, Bakker et al. (2006) and Kulikowski (2017) to use a single, comprehensive score to assess work engagement make perfect sense. Unless, of course, one is interested in vigor, dedication, and absorption as separate components. However, it

should be noted that no a priori theoretical reasons exist why these components would be related differently to other variables. At least, this is not how the UWES was conceived.

Originally, the UWES included 17 items that were later reduced to 9 items, which essentially provide the same information (Schaufeli, Taris et al., 2006). Some authors (Kulikowski, 2017; Seppälä et al., 2009) explicitly recommend using the more efficient short version, mainly because of better factorial validity and invariance across samples and time. Encouraging results were obtained with the 3-item ultrashort UWES across five countries (Schaufeli et al., 2017), which opens the possibility of measuring work engagement in national and international epidemiological surveys. For instance, the European Working Conditions Survey revealed that work engagement at the national level is curvilinearly related to a country's gross domestic product and linearly related to various indicators of good governance, such as public integrity, quality of democracy, and gender equality (Schaufeli, 2018).

The UWES can also be integrated into a more comprehensive, online tool based on the job demands-resources model (Bakker et al., 2014; Schaufeli, 2017). Hence, it assesses not only an employee's levels of work engagement but also the drivers and consequences (see Figure 15.1). Participants receive an individualized personal report, and by aggregating the individual information specific researchers can make suggestions about how to enhance levels of work engagement of teams, departments, or the organization as a whole (Knight et al., 2017).

Despite its cross-national validity, caution is warranted when comparing levels of work engagement between countries using the UWES, particularly when Asian countries are involved. For instance, it has been observed that Japanese employees scored consistently *lower* on work engagement than employees from Western countries, most likely because of the prevailing tendency in Japan to suppress the expression of positive affect (Shimazu et al., 2010). This underscores the necessity for establishing country-specific cutoff points that can be used for classifying employees as low, average, or high on work engagement compared with the working population (Schaufeli, 2017).

Conclusion and Outlook

Clearly, the field is dominated by the UWES, which is used in almost 9 out of 10 academic studies (Bailey et al., 2017). Although the validity of the UWES has occasionally been questioned, the current chapter shows that a vast body of psychometric studies exists demonstrating its internal consistency, stability, factorial validity, and invariance as well as its convergent and discriminant validity. Furthermore, this chapter shows that the UWES fits well into the nomological network that is based on the JD-R model (Figure 15.1). Taken together, the UWES seems to be the most promising tool to assess work engagement since, to date, no other viable alternative measure exists, perhaps except for the JES. Hence, future research with the JES – and other, alternative measures such as the ISA and EES – needs to be encouraged. In addition to psychometric work (e.g., about the incremental validity of different engagement measures; Mackay et al., 2017), three lines of research seem crucially important; (1) intervention studies on how to improve work engagement (Knight et al., 2017), (2) studies on the underlying mechanisms that explain why engagement leads to better individual, team, and business performance (Kim et al., 2012), and (3) studies on the still-underresearched dark side of work engage-

ment (Albrecht, 2010). In other words, can we have too much engagement? For the time being, the UWES might not be the perfect measure of work engagement, but it is certainly backed up by the most elaborate and convincing body of empirical evidence demonstrating its psychometric and conceptual soundness.

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