30 Work engagement from a cultural perspective

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Introduction

In accordance with the expanding global economy, researchers in occupational health psychology have begun to conduct cross-cultural studies. This chapter focuses on work engagement from a cultural perspective and addresses basic measurement issues in cross-cultural research on work engagement.

Brief introduction of work engagement

Psychology has recently been criticized as being primarily dedicated to addressing mental illness rather than mental "wellness". Since the beginning of this century, however, increased attention is paid to what has been coined "positive psychology": the scientific study of human strengths and optimal functioning (Seligman & Csikszentmihalyi, 2000). This advocated positive turn is also relevant for occupational health psychology. It has been proposed that rather than focus on employees' poor functioning as a result of stress and burnout, what will be more beneficial for our understanding of individuals and organizations is to look at the role of a more positive state of mind, which is called "work engagement" (Schaufeli, 2004).

Work engagement is a psychological state assumed to be negatively related to burnout. While burnout is usually defined as a syndrome of exhaustion, cynicism, and reduced professional efficacy (Maslach et al., 2001), engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli et al., 2002b). That means that engaged employees have a sense of energetic and effective connection with their work activities. Vigor is characterized by high levels of energy and mental resilience while working. Dedication refers to being strongly involved in one's work and experiencing a sense of significance and pride. Finally, absorption is characterized by being fully concentrated and happily engrossed in one's work.

Measurement of work engagement

Work engagement is operationalized with the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003), a self-report instrument that includes the above three dimensions. The original UWES (UWES-17) includes 17 items (Schaufeli et al., 2002b): vigor (six items), dedication (five items), and absorption (six items). The UWES-17 has encouraging psychometric features. For instance, confirmatory factor analyses showed that the hypothesized three-factor structure of the UWES is superior to the one-factor model (for example, Schaufeli et al., 2002a; Schaufeli & Bakker, 2004), although the dimensions are highly related. In addition to the UWES-17, a shortened version of nine items (the UWES-9) – with three scales of three items each – shows similar encouraging psychometric features (Schaufeli et al., 2006). Hardly any systematic differences in work engagement were observed between men and women, or across age groups. In some occupational groups, engagement levels were found to be higher than in other groups (for example, executives versus blue-collar workers).

The UWES is now used especially in Western countries. Currently, 21 language versions are available (that is, Afrikaans, Brazilian, Chinese, Czech, Dutch, English, Estonian, Finnish, French, Italian, German, Greek, Japanese, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Swedish, and Turkish) and an international database exists that currently includes engagement records of nearly 80,000 employees. For the 17-item version of the UWES, the three-factor model fits slightly better to the data than the one-factor model, at least as far as samples from Western countries such as Spain, Portugal, the Netherlands, and Greece are concerned (Llorens et al., 2006; Schaufeli et al., 2002a; Schaufeli & Bakker, 2003, 2004; Xanthopoulou et al., in press). In addition, a cross-national study that included samples from 10 mostly Western countries (that is, Australia, Belgium, Canada, Finland, France, Germany, the Netherlands, Norway, South Africa, and Spain) showed factorial invariance of the three-factor structure of the UWES-9 across samples from various countries (Schaufeli et al., 2006). Hence, the factor structure of the UWES is essentially similar and does not differ between countries. However, because the correlations between the three engagement dimensions are very high and the internal consistency of the 9-item scale is very good, the authors conclude that the total score can be used as an indicator of work engagement.

Culture and positive emotion

Because of the expanding global economy, researchers in occupational health have begun to conduct cross-cultural research. As far as work engagement is concerned, however, cross-cultural research has been

largely limited to Western countries with relatively small linguistic and cultural differences, such as Spain, Portugal and the Netherlands (Schaufeli et al., 2002a). Because the investigation of work engagement in other non-Western cultures, such as Japan, still stand out, it may contribute to our further understanding and to the generalizability of the concept of work engagement across different cultures. This is of special relevance, because previous cross-cultural studies showed that results obtained in Western samples cannot just be generalized to the Japanese context.

For instance, Scholz et al. (2002) showed the validity of generalized self-efficacy, the belief of being able to control challenging environmental demands by taking adaptive action (Bandura, 1997), applied in samples drawn from 25 different countries. However, they also showed that the mean scores of the general self-efficacy scale differed systematically among countries. The lowest means were found for the Japanese, followed by the Hong Kong Chinese; whereas highest values were found for the Costa Ricans, Danes, and French. Scholz et al. explained the low scores of self-efficacy among the Japanese as follows: "hard work and effort is more highly valued than ability in collectivistic cultures. Therefore, self-efficacy may be rated lower in collectivistic cultures than in individualistic cultures" (2002, p. 249).

Another example comes from Iwata et al. (1995), who examined cultural differences in responses to positive and negative items of the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) among American and Japanese adult workers. They found that responses to negatively worded items (for example, lonely, crying) were generally comparable in the two groups (mean scores 3.91 versus 3.52 for Japanese and US workers, respectively, $p > 0.10$), whereas the Japanese responses to positively worded items (for example, (not) hopeful, (not) happy) markedly differed from those of US workers (mean scores: 6.03 versus 1.83, respectively, $p < 0.001$: note that high scores mean high depressive symptoms). Iwata et al. (1995) explained their results in terms of the tendency to suppress positive affect expression among Japanese. According to Iwata et al., maintenance of social harmony is one of the most important values in Japanese society, and the Japanese have been taught since childhood to understate their own virtues and not to behave assertively. As a result, the Japanese may judge positive affect and affairs through a comparison with others (that is, relativistic judgment), which leads to suppression of positive affect expression. Kirmayer (1989) pointed out that in some cultures the suppression of distress could be a means of successful coping and, at the same time, might provide a mark of moral distinction. Likewise, the suppression of positive affect may represent a moral distinction and socially desirable behavior in Japanese society.

These examples suggest that a common bias exists in cross-cultural comparison of mental health and other psychosocial conditions due to the wording of the items: that is, particularly responses to positive items are likely to be biased among various ethnocultural groups.

International comparison of UWES scores

As mentioned in the previous section, in a collectivistic culture such as Japan, maintenance of social harmony is one of the most important values, which may result in suppression of positive affect expression (Iwata et al., 1995). This suggests that such a response tendency might negatively affect the psychometric properties of UWES, which consists of positively worded items. So, the following question emerges:

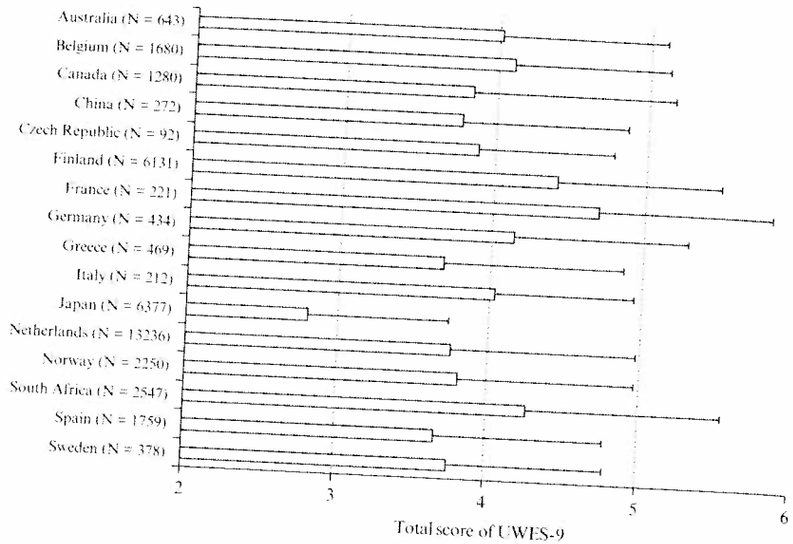
Is the score on the work engagement scale among Japanese lower than those among other samples?

To answer this question, scores of UWES-9 among Japanese employees were compared with those from employees from 15 other countries (that is, Australia, Belgium, Canada, China, the Czech Republic, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, South Africa, Spain and Sweden) by use of an international database (see http://www.schaufeli.com/).

Figure 30.1 shows the scale scores of UWES-9 (Shimazu et al., 2005). Since multiple comparisons were made, the Bonferroni correction was applied to control for increased probability of Type 1 errors or spurious results. The alpha level was set at 0.001. As expected, Japanese employees scored significantly lower than the employees from any other country, suggesting that they are less engaged compared to employees from any other country. However, the relationships between engagement and country should be interpreted with caution since instead of using representative national samples, convenience samples have been used. Nevertheless, it is notable that Japanese employees had lower scores across any comparison and that the differences were rather large; that is, more than one standard deviation in eight out of 15 comparisons. Thus, these results may reflect "the Japanese tendency to suppress positive affect expression" (Iwata et al., 1995, p. 242).

Application of item response theory to UWES

Now we recognize that we should take into account the tendency to suppress the expression of positive affect among Japanese employees when comparing positive aspects of well-being, particularly with other Western countries, our second question is:



Note: All comparisons were significant at the 0.1% level (Bonferroni correction for multiple comparison was applied).

Figure 30.1 *Comparison of UWES-9 scores between Japan and 15 countries*

Is the UWES sensitive to change in the extent of work engagement among employees in non-Western countries like Japan?

To answer this question, an advanced psychometric scale analysis called item response theory (IRT; Emberson & Reise, 2000) was applied to our cross-cultural data. IRT is a model-based approach to understand the nonlinear relationships between individual characteristics (for example, traits), item characteristics (for example, difficulty), and individuals' response patterns. The use of IRT to study individual difference variables such as work engagement is advantageous for several reasons (Scherbaum et al., 2006; Oishi, 2007).

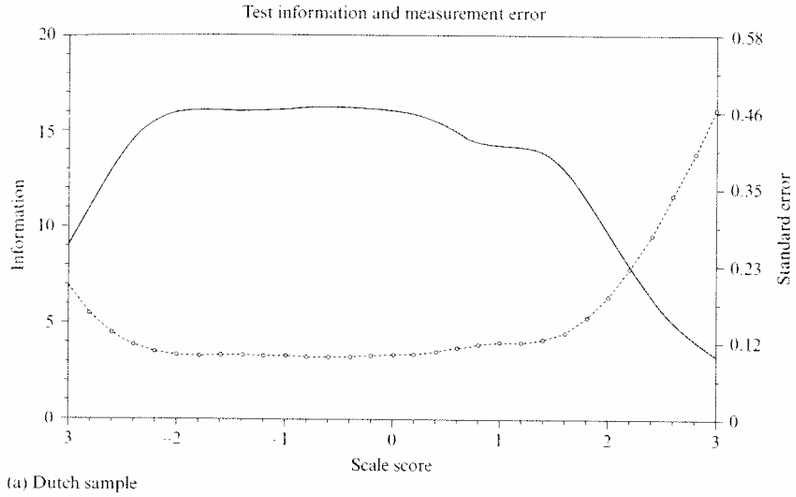
First, IRT analyses compute the standard error of measurement (SEM) at each level of the latent trait, which indicates the extent of measurement preciseness at each level of the trait. For instance, it may be the case that a measure may be more precise at particular levels (high versus low) of work engagement. Second, IRT analyses compute the amount of psychometric "information" about the latent trait at each level of the trait that is provided by each item, as well as the entire measure, using

the item information functions (IIFs) and the test information function (TIF), respectively. The IIFs and the TIF are particularly useful because they indicate which items, and which levels of the latent trait, provide substantial information. For instance, it may be that some items or particular levels of the trait (for example, high versus low levels of work engagement) provide less information. Taken together, IRT can be used to evaluate measures in terms of how well the items and the entire measure assess a trait at different levels on the continuum for the trait (Lord, 1977; Hambleton et al., 1991).

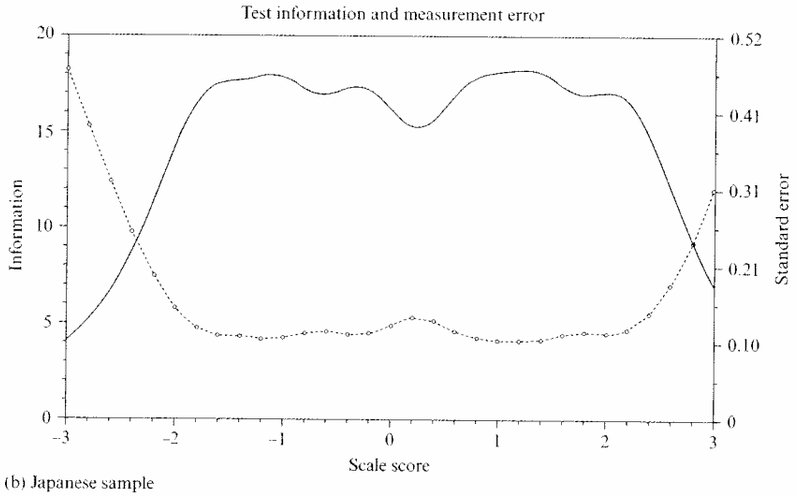
By using IRT, we (Miyanaka, 2009) investigated (i) the measurement accuracy of the original (that is, Dutch) and the Japanese version of the 9-item short UWES and (ii) the comparability of the scale between the Netherlands (N = 13,406) and Japan (N = 2,339). Figure 30.2 shows the results of TIF and SEM among Dutch and Japanese samples, respectively (note that SEM equals the root square of 1/TIF), whereby the x-axis indicates the latent trait of the scale and the y-axis indicates measurement precision conditional on latent trait for the whole scale.

The TIF and SEM results showed that measurement accuracy of both versions was *not* similar. The amount of information in the Japanese version decreased sharply at the level of less than 2 (Figure 30.2b), meaning that the Japanese version had difficulty in differentiating respondents with extremely low work engagement. On the other hand, the amount of information in the original Dutch version decreased gradually at the level of more than 1 (Figure 30.2a), meaning that the original version had difficulty in differentiating respondents with high work engagement.

These results suggest that extremely low scores of the Japanese UWES-9 do *not* necessarily indicate low work engagement but might reflect decreased measurement accuracy of the scale in a Japanese sample. A possible cause of decreased measurement accuracy might be the tendency to suppress the expression of positive affect among Japanese people (Iwata et al., 1995). The results also suggest that (extremely) high scores of the original UWES-9 do *not* necessarily indicate high work engagement. The typical response tendency known as "self-enhancement", the general sensitivity to positive self-relevant information (Heine et al., 1997; Kitayama et al., 1997) might be a possible cause of decreased measurement accuracy. According to Kitayama et al. (1997), this tendency has positive social and psychological consequences within a cultural system that is organized to foster and promote the independence and the uniqueness of the self. Because self-enhancement maintains and enhances an overall evaluation of the self such as self-esteem, it could be a means of successful coping in Western countries.



(a) Dutch sample



(b) Japanese sample

Note: TIF (solid line) is read from the left vertical axis; SEM (dotted line) is read from the right vertical axis.

Figure 30.2 TIF and SEM of UWES-9

Concluding remarks

With the globalization of occupational health psychology, more and more researchers are interested in applying employee well-being such as work engagement to diverse populations. This chapter addressed psychometric issues in conducting cross-cultural studies in the field of occupational health psychology. In comparing positive aspects of well-being such as work engagement between Western and Asian countries (at least Japan), we should take into account the tendency to suppress the expression of positive affect among Japanese as well as the tendency for self-enhancement among Westerners. Hence, for the time being, we should be cautious when interpreting low engagement scores among Japanese as well as high engagement scores among Western employees. Further psychometric studies are needed to differentiate respondents with low work engagement in Japan as well as to differentiate those with high work engagement in Western countries. Ultimately, accurate measurement contributes to our further understanding and to the generalizability of the concept of work engagement across different cultures.

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PART VI

PERFORMANCE, OUTCOMES AND INTERVENTIONS: WHAT ENGAGEMENT INFLUENCES AND HOW TO DEVELOP IT