

Training perceptions, engagement and performance: comparing work engagement and personal role engagement

The purpose of this study was to compare two engagement constructs (work engagement and personal role engagement) with regards to their relationship with training perceptions and work role performance behaviours. It was hypothesised that personal role engagement would show incremental validity above that of work engagement at predicting work role performance behaviours and be a stronger mediator of the relationships between training perceptions and such behaviours. Questionnaire data was gathered from 304 full-time working adults in the UK. As predicted, personal role engagement was found to explain additional variance above that of work engagement for task proficiency, task adaptability, and task proactivity behaviours. Moreover, personal role engagement was a stronger mediator of the relationship between training perceptions and task proficiency as well as between training perceptions and task adaptability. Both work engagement and personal role engagement mediated the relationship between training perceptions and task proactivity to a similar degree. The findings suggest that personal role engagement has better practical utility to the HRD domain than work engagement, and indicates that future research may benefit from adopting the personal role engagement construct.

Keywords training and development; work engagement; personal role engagement; performance

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Introduction

Although evidence within the HRD domain has started to demonstrate that engagement is beneficial for individual performance (Rurkkhum and Bartlett 2012) and is an important psychological experience that connects HRD practices with employee outcomes (Shuck et al. 2014), a number of different engagement constructs have been utilised. Despite most engagement research claiming to represent a similar activated and positive psychological state, there remains the issue that there is no single universally accepted and utilised engagement construct (Wefald et al. 2012). The construct being utilised is important as it should capture this particular state and not other psychological phenomenon such as flow or involvement (Little and Little 2006). In consequence, a growing number of scholars are concerned that without focused empirical examination of these constructs, the potential value of engagement, as a unique psychological construct, will be lost (Cole et al. 2012). This is of particular relevance within the HRD field as there may be subtle, yet important differences in the significance and power of different engagement constructs to predicting job performance as well as for mediating relationships between HRD practices and performance. Without understanding this issue the robustness and validity of engagement research within the HRD domain may be variable and contestable. Furthermore, given that HRD practitioners are responsible for monitoring engagement levels and designing interventions to improve engagement (Shuck and Rocco 2014), insights from such research may not provide clear and precise recommendations.

The two most dominant and widely utilised constructs of engagement applied to HRD research are work engagement (Schaufeli et al. 2002) and personal role engagement

(Kahn 1990). Despite representing similar multidimensional and higher-order attitudinal constructs, the two conceptually differ in fundamental ways (Shuck 2011), which therefore affect the measurement of these constructs and potentially the relationship they have with HRD practices as well as with performance. Given that prior studies (Cole et al. 2012; Wefald et al. 2011) reveal that these engagement constructs show differences in their discriminant and predictive validity this is an important area to research. No studies have compared work engagement and personal role engagement in this way within the context of HRD. Identifying which construct is more empirically useful to apply to the HRD domain will help researchers focus on developing a strong, consistent and clear evidence base that can provide organisations with precise ways to measure, evaluate and improve engagement through HRD practices. This current study seeks to fill this gap by comparing and contrasting personal role engagement and work engagement as a) predictors of work performance, and b) mediators the relationship between training (as a core HRD practice) and work performance.

Literature review and hypothesis development

Personal role engagement and its link with performance

Personal role engagement was first conceptualised by Kahn (1990), who sought to develop a new approach to work motivation by undertaking an inductive ethnographic study within a summer camp for adolescents and an architecture firm. From this study, he defined engagement as the "harnessing of organization members selves to their work roles" (Kahn 1990, 694), and described it as the simultaneous expression of various facets of one's preferred self at work. These facets are connected to, and focused on, the work role: the emotional dimension of the self that reflects an energising form of positive affect; a cognitive dimension of the self that signifies a high level of intellectual activity that goes beyond the basic fulfilment of core duties; and a social dimension of the self that enables

the individual to relate and connect with the wider work context (Soane et al., 2013). Although the emotional and cognitive dimensions exist in other operationalisations of personal role engagement (May, Gilson, and Harter 2004; Rich, LePine, and Crawford 2010), these others focus on a physical or behavioural dimension (in the form of devoting energy and effort to the job role) rather than a social dimension. Kahn (1990), and indeed others (e.g., Parker and Griffin 2011), make the distinction between the experience of engagement and the behavioural consequences of such engagement, and recently Kahn and Heaphy (2014) highlight the importance of social connectedness in the experience of engagement. Thus, social engagement may be an integral feature of 'being engaged', whereas behavioural or physical engagement may constitute an outcome rather than a dimension of engagement.

Inherent in the conceptualisation of personal role engagement is the notion that engagement is connected with high quality job performance. Personal role engagement allows individuals to demonstrate 'authenticity', i.e. "one's thoughts, feelings and beliefs are accessible within the context of role performances" (Kahn 1992, 322), thus the experience is psychological, yet the consequences are behavioural. When a person is engaged their preferred self is expressed and employed in the performance of their work role (Kahn, 1990). Empirical studies have demonstrated that the higher the level of a person's personal role engagement, the greater their performance is in terms of in-role (e.g., task performance - Rich et al. 2010) and extra-role (e.g., citizenship behaviours – Alfes et al. 2012; innovation/creativity- Alfes et al. 2013; knowledge sharing - Chen, Zhang, and Vogel 2011) work behaviours. These relationships range from $r = .31$ to $r = .46$, and from regression co-efficients of $\beta = .25$ to $\beta = .53$.

Work engagement and its link with performance

Work engagement was developed through a deductive and quantitative approach that focused on positioning it as the positive anti-thesis of job burnout. Consequently, it was found that although the two were highly related, engagement represented an independent construct that was not the polar opposite of burnout (Schaufeli et al. 2002). Work engagement is defined as "a positive, fulfilling work-related state of mind...that is not focused on any particular object, event, individual, or behavior" (Schaufeli et al. 2002, 74). It is focused on the broad scope of work activities and manifests as a higher-order attitudinal state that comprises three dimensions: feeling energised and vigorous (Vigor); feeling proud of and dedicated to one's work (Dedication), and feeling absorbed and immersed in one's work (Absorption). Thus, work engagement represents a sense of energy and identification with work activities (Schaufeli and Bakker 2010). However, this construct of engagement has been questioned as there is evidence to show that work engagement "overlaps to such an extent with job burnout...that it effectively taps an existing construct under a new label" (Cole et al. 2012, 1573).

Despite this, work engagement is theorised to be related to job performance because it signifies an energetic and involved motivational state that directs an individual's efforts towards the completion of work tasks and activities (Parker and Griffin 2011). There are a growing number of studies that show a positive relationship between work engagement and work role behaviours, both in-role (e.g., Gorgievski, Bakker, and Schaufeli 2010) and extra-role (e.g., citizenship behaviours -Sulea et al. 2012; innovation/creativity- Bakker and Xanthopoulou 2013; adaptability - Barnes and Collier 2013; personal initiative/proactivity - Den Hartog and Belschak 2012). These relationships range from $r = .30$ to $r = .51$, and from regression co-efficients of $\beta = .23$ to $\beta = .42$.

INSERT TABLE 1 HERE

Comparing personal role engagement and work engagement constructs

Table 1 summarises the conceptual foundations of the two engagement constructs. Drawing on this, I argue that personal role engagement represents a fuller, deeper, and more immersive concept than work engagement. Crucially, personal role engagement differs from work engagement because it attempts to capture the authentic and complete expression of one's preferred self to one's work role performance rather than just the employment of energies into work activities (Kahn and Heaphy 2014; Schaufeli and Bakker 2010). This then allows for full and active work role performance as key aspects of the self are simultaneously expressed in a connected way within the work role (Rich et al. 2010), and so "highlights not only the connection between engagement and work role performance...but also the notion of personal agency or agentic self" (Cole et al. 2012, 1576). This psychological involvement with work is more holistic, synergistic and distinct than the narrower work engagement construct that views it as being "a high level of energy and strong identification with one's work" (Schaufeli and Bakker 2010, 13). Work engagement is focused on the attitudinal connection that an individual has with their work activities rather than the expression of the self in one's work role, and so is more about a 'state of mind' whilst at work rather than a 'state of self-expression' (Kahn and Heaphy 2014; Schaufeli et al. 2002). This can be seen when comparing the different measurements of the two constructs.

Although there are similarities between the Soane et al's (2013) and Schaufeli et al's (2002) measures, notably the items reflecting the affective engagement and dedication dimensions, there are fundamental differences. Soane et al (2013) focus on intellectual engagement in the form of attention and focus whereas Schaufeli et al (2002) focus on absorption and cognitive intensity. Given that attention and absorption are related, yet different features of cognitive activation, with the latter connoting a core element of the

flow experience (Csíkszentmihályi 1991; Rothbard 2001), these two dimensions may elicit different behavioural responses. Rothbard (2001, 678) argues that attention may represent “an invisible, material resource that a person can allocate in multiple ways... [whereas absorption] is linked to intrinsically motivated interest”, and so it may be that attention facilitates performance more broadly and fully as absorption is only directed towards performance in personally interesting tasks. Another fundamental difference is that Soane et al (2013) focus on the perceived social connection between the individual and their work environment in the form of social engagement whereas Schaufeli et al (2002) focus on energy and mental resilience in the form of vigor. Social engagement may be associated with contextual performance given the relational nature of citizenship and prosocial behaviours (Borman and Motowidlo 1997) whereas vigor may be more narrowly focused task performance due to its focus on energy and work activities (Schaufeli and Bakker 2010).

Based on the above arguments, this paper proposes that personal work engagement will exhibit a stronger relationship with a range of work role behaviours than work engagement, and will contribute more to their prediction (in terms of explained variance). Initial evidence shows that personal role engagement explained 6% additional variance, above that of work engagement, in task performance and 1% in citizenship behaviour (Soane et al. 2013).

Hypothesis 1: Personal role engagement will demonstrate incremental validity above that of work engagement in relation to predicting work role behaviours

Hypothesis 2: Personal role engagement will contribute more to the prediction (in terms of explained variance) of work role behaviours than work engagement

The mediating role of engagement in the relationship between training perceptions and performance

Training is a specific HRD practice that facilitates performance because it develops the technical and personal skills needed to perform a job effectively (Aguinis and Kraiger 2009). However, employees will perceive these practices in different ways according to their prior experiences of training and their thoughts about why management are enacting them (Nishii, Lepak, and Schneider 2008). It is these individual perceptions that have the strongest influence on employee attitudes and behaviours (Guest 2002). Indeed, evidence shows that training perceptions are related to individual productivity (Paul and Anantharaman 2003). Moreover, the link between training perceptions and work role performance is likely to be indirect because it activates motivational processes that direct energies towards goal attainment (Dysvik and Kuvass 2008). As engagement is seen as an active, motivational construct (Parker and Griffin 2011), it is therefore argued that positive perceptions of training will lead to higher levels of performance via the experience of engagement. Studies show that training perceptions are directly linked with engagement levels (Salanova, Agut, and Peiró 2005), and perceptions of HR practices, including training, are indirectly related to performance via engagement (Alfes et al. 2012).

However, it is not known whether work and personal role engagement may have similar or different mediating effects on the relationship between training perceptions and work role performance. This paper proposes that personal role engagement will be a stronger mediator than work engagement because personal role engagement does not just direct energy and dedication into completing tasks but also deepens the meaning and sense of fulfilment of all aspects of the work role (May et al. 2004). This facilitates high quality performance because it meets critical psychological conditions that parallel a relational psychological contract; namely meaningfulness, availability, and safety (Kahn 1990).

Meaningfulness connotes feeling that one's work role is 'worthwhile, useful and valuable', and derives primarily from motivational job design, positive role status and identity, and rewarding social interactions (May et al. 2004). Availability signifies that there are enough perceived resources available to engage, and is depleted when there are excessive and competing demands, insecurity about one's role and place in the organisation, and where outside lives interference with one's work (Kahn 1990). Lastly, safety represents the perception that one can express one's thoughts and feelings without fear of negative consequences. This occurs when one is able to trust others and be open at work, and is derived from interpersonal relationships, managerial behaviours, and workplace norms (Kahn and Heaphy 2014). Training could be seen to fulfil these psychological conditions. First, training provides employees with knowledge and understanding that makes work more meaningful (Rana 2015). Second, training develops important personal resources that enable employees to feel psychologically able to sustain healthy levels of engagement (Gruman and Saks 2011). Lastly, training can foster a respectful and psychologically safe environment through raising awareness of diversity, conflict and incivility issues (Reio and Sanders-Reio 2011). Thus, personal role engagement acts as a contextually embedded psychological mechanism that connects training with the full expression of the self in one's work role (Kahn 1990).

Work engagement, in contrast, focuses on the ability of engaged individuals to gain and mobilise job resources in their work environment and personal resources so that performance can be enhanced (Bakker and Demerouti 2008), and as such views training as a functional organisational resource that primarily acts to build self-efficacy, which in turn can lead to engagement and performance (Schaufeli and Salanova 2008). This resource-based perspective has been criticised for reducing the role of engagement as "a transactional commodity that occurs because someone else dispenses resources"

(Bargagliotti 2011, 1416), and as representing "a dangerously simplistic view of work relations" (Purcell 2014, 242). Thus, it may be that work engagement is a weaker mediator than personal role engagement of the relationship between training perceptions and work performance due to focusing on the economic transaction between the organisation and the employee in terms of resources and effort. Moreover, work engagement theory does not consider the particular value of different forms of resources and instead views resources as a general composite factor consisting of a mixture of job design, leadership, social support, and organisational practices (Bakker and Demerouti 2008). This lack of precise understanding of the role of training and of engagement as a mediator between training and performance limits the robustness and application of work engagement theory to the HRD domain.

Hypothesis 3: Personal role engagement will mediate the relationships between training perceptions and work role behaviours to a greater degree than work engagement.

Method

Sample and participants

An online questionnaire was sent to fulltime employed workers, resident in the UK, via a market research company. The sample was generated by the market research company from a database of enrolled members of the public who receive credit points for completing surveys sent by the company. These points can be exchanged for monetary vouchers once enough have been gained. A total of 304 respondents completed the questionnaire; of which 55% were male, 43% were degree educated or higher, and 45% had managerial responsibilities. A range of occupational groups were represented; the highest proportions being administrative/secretarial (28%) and professional workers

(25%). The average age of respondents was 41.45 years ($SD = 11.69$), and the average length of tenure with the current employer was 9.96 years ($SD = 8.94$).

Measures

Training perceptions

Schmidt's (2007) four-item satisfaction with training scale was used to measure training perceptions. An example item is 'The amount of training I receive is satisfactory'. Respondents were asked to indicate how strongly they agreed/disagreed with each statement on a 5-point Likert scale (1- strongly disagree, 5- strongly agree). This scale exhibited high inter-item reliability ($\alpha = .90$).

Work engagement

The 9-item UWES (Schaufeli and Bakker 2003) was used to measure work engagement because it has been found to be statistically more robust than the original 17-item version (Seppälä et al. 2009). Respondents were asked to rate the frequency (1-never to 5-always) to which they experienced, at work, the feeling described in each statement. Three statements referred to feelings of vigor (e.g. 'At work I am bursting with energy'), three to feelings of dedication (e.g. 'My job inspires me') and three to feelings of absorption (e.g. 'I am immersed in my work'). The UWES demonstrated high inter-item reliability as an overall measure ($\alpha = .94$) and as its dimensions ($\alpha = .84$ to $.87$).

Personal role engagement

The 9-item ISA scale (Soane et al. 2013) was used to measure personal role engagement as the holistic expression of one's preferred self at work (Kahn 1990). It was developed directly from Kahn's theorising in that the measure is based on the rationale that three elements of a work role enable engagement to occur: a focused role that helps with the alignment of self and role, activation that triggers affective and cognitive responses to the role, and positive affect that broadens thoughts and actions related to the

role. The ISA scale captures the key aspects of engagement in terms of intellectual engagement (3 items e.g. 'I focus hard on my work'), social engagement (3 items e.g. 'I share the same work attitudes as my colleagues') and affective engagement (3 items e.g. 'I am enthusiastic in my work'). Respondents are asked to indicate how strongly they agree/disagree with each statement on a 5-point Likert scale (1- strongly disagree, 5- strongly agree). It has demonstrated to be reliable and valid with existing studies showing Cronbach alpha scores of between .81 and .88, and discriminant validity against perceived employee voice, HRM practices, line manager relationships/behaviours, and task/contextual performance (Alfes et al. 2013; Rees et al. 2013; Soane et al. 2013). In this study, the ISA scale exhibited high inter-item reliability as an overall measure ($\alpha = .91$) and as its constituent facets ($\alpha = .91$ to $.94$).

Work role behaviours

Griffin, Neal and Parker (2007) provide a useful and encompassing framework to examine work role behaviours. They integrated various strands of performance literature to develop and test three distinct forms of positive work role performance behaviours: proficiency, adaptability, and proactivity. For this study, the focus will be on individual task performance, and so Griffin et al's (2007) three-item task proficiency scale (e.g. 'I carried out the core parts of my job well'), three-item task adaptability scale (e.g. 'I adapted well to changes in core tasks') and three-item proactivity scale ('I initiated better ways of doing my core tasks') were used. Respondents were instructed to rate how often (1- not at all to 5- a great deal) they enacted each behaviour at work in the previous month. These scales demonstrated high reliabilities ($\alpha = .95, .82, .94$; respectively).

Control variables

As a range of different types of workers were surveyed from various organisations in the UK, it was deemed appropriate to control for the following characteristics: gender

(0= male, 1= female), age (in years), tenure (in years), and management responsibility (0= no, 1= yes). These characteristics are typically controlled for when examining the antecedents of work behaviours because they may have some degree of association with these antecedents and/or outcomes (e.g., Chen et al. 2011).

Results

Descriptive statistics

Means, standard deviations and correlations between the variables are given in Table 2. Work engagement and personal role engagement were positively correlated with task proficiency, task adaptability, and task proactivity.

INSERT TABLE 2 HERE

Measurement models

Due to the data being collected from a single source only, there is a need to consider common method bias and discriminant validity (Podsakoff et al. 2003). Confirmatory factor analyses (CFAs) were conducted to verify the underlying theoretical constructs and to control for the influence of common method bias. The likelihood ratio χ^2 and degrees of freedom were calculated. The following fit indices were also used to determine model fit more accurately: a) Root Mean Square Error of Approximation (RMSEA; Steiger 1990) where values of .10 or below indicates a plausible fit; b) the Comparative Fit Index (CFI; Bentler 1990), where a value of .90 or above indicates a plausible fit; c) the standardized Root Mean Square Residual (SRMR; Hu and Bentler 1999) where values of .08 or below indicates a plausible fit.

First, CFAs were conducted on the two engagement constructs as they represent similar psychological concepts. The UWES and the ISA scales are thought to represent three dimensions of engagement each. Indeed the CFAs found support for the six factor structure, and this was the best fitting models compared with alternative one to five factor

solutions (see Table 3). Further to this, the vigor (.94), dedication (.99), and absorption (.86) dimensions loaded onto the higher-order UWES factor well; and the intellectual (.62), social (.56), and affective (.95) facets loaded onto the higher-order ISA factor well. Second, the distinction between all six latent variables (i.e., training perceptions, work engagement, personal role engagement, task proficiency, task adaptability, and task proactivity) was tested. As work engagement and personal role engagement constructs were second-order factors, a form of item parcelling was used to represent these factors (i.e., factors represented by the sub-dimensions rather than the individual items). This is an acceptable way to characterise higher-order factors within CFA analyses (Martin, Malmberg and Liem 2010). The CFAs confirmed that the six factor solution was a good fit, and a better fitting solution than alternative one to five factor solutions (see Table 4).

INSERT TABLE 3 HERE

INSERT TABLE 4 HERE

Tests of hypotheses

The direct relationship between the engagement constructs and work role behaviours

Hierarchical linear regression analyses were performed to determine which variables were unique predictors of the work role behaviours. For each dependent variable, two steps were conducted. The first was a regression that included the control variables and work engagement to ascertain the variance explained by work engagement alone; the second was a regression that built from the first step and included personal role engagement in order to ascertain whether personal role engagement has incremental validity. Univariate relative importance analyses (Tonidandel and LeBreton 2011) were performed on the step 2 regression using the online RWA-WEB program (Tonidandel and LeBreton 2014). Relative importance analysis supplements traditional regression analyses by helping to understand which predictors are contributing most to the prediction of a

criterion variable (Tonidandel and LeBreton 2011). The RWA-WEB program estimates the relative weight indices (rw) for each predictor along with bootstrapped confidence intervals (10,000 replications using alpha of 0.05), where the range should not include zero to be deemed significant.

Table 5 shows the results of these regression analyses. The results of step 1 across the behavioural outcomes show that work engagement was positively related to task proficiency ($\beta = .28, p < .001$), task adaptability ($\beta = .33, p < .001$), and task proactivity ($\beta = .41, p < .001$). However, when personal role engagement was added to these models (step 2) the relationships between work engagement and a) task proficiency, and b) task adaptability became non-significant. The relationship between work engagement and task proactivity remained significant, albeit reduced. In contrast, the associations between personal role engagement and the behavioural outcomes were all significant: task proficiency ($\beta = .41, p < .001$), task adaptability ($\beta = .39, p < .001$), and task proactivity ($\beta = .19, p < .001$). These second models (step 2) explained a significant amount of additional variance than the first models (step 1): an additional 9% in task proficiency, 8% in task adaptability, and 2% in task proactivity. Therefore, Hypothesis 1 was supported as personal role engagement demonstrated incremental validity above that of work engagement in the prediction of all three work role behaviours. Moreover, the relative weights analysis shows that personal role engagement contributed significantly more than work engagement to the prediction of task proficiency ($rw = .12$ versus $.03$) and task adaptability ($rw = .14$ versus $.05$), and contributed to a similar degree as work engagement to the prediction of task proactivity ($rw = .08$ versus $.10$). Thus, Hypothesis 2 was largely supported.

INSERT TABLE 5 HERE

The indirect relationships between training perceptions and work role behaviours via work engagement and personal role engagement

To test for mediation, the steps outlined by Baron and Kenny (1986) were followed. Table 6 shows the results of these steps. Firstly, training perceptions were positively related to task proficiency ($\beta = .17, p < .05$), task adaptability ($\beta = .23, p < .001$), and task proactivity ($\beta = .24, p < .001$). Thus, the first condition of mediation was met, i.e. that the predictor is related to the dependent variable. Secondly, training perceptions were positively related to work engagement ($\beta = .47, p < .001$) as well as to personal role engagement ($\beta = .59, p < .001$), thus meeting the second condition of mediation, i.e. that the predictor is related to the mediator. Thirdly, both work engagement and personal role engagement reduced (most to non-significance) the relationship between training perceptions and a) task proficiency ($\beta = .06, p > .05$; $\beta = -.12, p > .05$), b) task adaptability ($\beta = .16, p < .05$; $\beta = .01, p > .05$), and c) task proactivity ($\beta = .09, p > .05$; $\beta = .05, p > .05$). Moreover, work engagement and personal role engagement were still positively related to task proficiency ($\beta = .23, p < .001$; $\beta = .49, p < .001$), task adaptability ($\beta = .16, p < .05$; $\beta = .38, p < .001$), and task proactivity ($\beta = .32, p < .001$; $\beta = .32, p < .001$). This meets the third and fourth conditions of mediation, i.e. the mediator affects the dependent variable when the predictor is controlled for and reduces the relationship between the predictor and dependent variable.

To fully establish mediation, the PROCESS tool by Hayes (2014) was used. Table 7 shows the results of the mediation tests. The lower and upper bounds of the indirect effect for the relationship between training perceptions and each of three work role behaviours via a) work engagement and b) personal role engagement was greater than zero. However, the effect sizes were much larger for personal role engagement as the mediator than for work engagement as the mediator (.08 to .15 versus .19 to .29). This

indicates that personal role engagement is a stronger mediator of the relationships between training perceptions and work role behaviours than work engagement, and so provides support for Hypothesis 3.

INSERT TABLE 6 HERE

INSERT TABLE 7 HERE

Discussion

Although evidence within the HRD domain has started to demonstrate that engagement is beneficial for individual performance (Rurkkhum and Bartlett 2012) and is an important psychological experience that connects HRD practices with employee outcomes (Shuck et al. 2014), there is an issue that a range of constructs are being utilised from different theoretical approaches. To clarify which approach may have the most practical utility to the HRD domain, two of the most dominant engagement constructs were compared: work engagement (Schaufeli et al. 2002) and personal role engagement (Kahn 1990). This is the first study to compare the predictive power of these two constructs on job performance and their mediating role in the relationship between HRD practice and performance.

First, the predictions that personal role engagement would be a stronger predictor of work role behaviours than work engagement were largely supported. Personal role engagement was shown to have incremental validity over work engagement for all three work role behaviours. Moreover, the relative weight analysis demonstrated that personal role engagement contributed much more to the prediction of task proficiency and task adaptability than work engagement. Both work and personal role engagement contributed similarly to the prediction of task proactivity. These findings collectively indicate that personal engagement has slightly better predictive power than work engagement with regards to performance. They add to those of Soane et al (2013) by demonstrating that

personal role engagement is a stronger predictor than work engagement of not only task performance behaviours, but also adaptability behaviours. This study shows support for the theoretical distinction between personal role engagement as a ‘state of self-expression’ and work engagement as a ‘state of mind’ (Kahn and Heaphy 2014). This finding is important as it clarifies an important conceptual and theoretical distinction between the two constructs that has hitherto not been empirically examined. Personal role engagement seems to reflect a more holistic and synergistic engagement construct that fosters full work role performance (Kahn 1990), whereas work engagement seems to represent a narrower and more specific engagement construct that facilitates high levels of energy and identification with work tasks (Schaufeli and Bakker 2010). This is an important finding as it indicates that personal role engagement, rather than work engagement, should be applied when examining job performance. The finding that work engagement is most strongly associated with task proactivity suggests that work engagement directs energies into work activities that specifically seek to demonstrate personal initiative, whereas personal role engagement seems to direct energies into the wider scope of the work role.

Second, the study is one of the first to empirically evidence that training perceptions are linked with performance behaviours via engagement, and demonstrate that personal role engagement is a stronger mediator of these relationships than work engagement. This shows support for the argument that training provides a meaningful, safe and resourceful social context that enables the full expression of the self in one’s work role performances (Gruman and Saks 2011; Rana 2015; Reio and Sanders-Reio 2011). Work engagement may focus too narrowly on the transaction of resources in exchange for effort (Bargagliotti 2011), and so may not be as theoretically comprehensive as personal role engagement theory. This study affirms recent theorising within HRD research that has focused on connecting Kahn’s (1990) personal role engagement theory to

HRD practice (e.g., Shuck and Rocco 2014), and, along with other studies have found that the measurement of work engagement is psychometrically problematic (Cole et al. 2012; Wefald et al. 2010), calls into question the utility and distinct value of work engagement to the HRD domain. In sum, this current study gives tentative support to Cole et al's (2012) arguments that engagement research should move away from adopting work engagement and towards utilising personal role engagement.

Implications for future research

The findings of this study highlight a number of important implications for future research. First, it suggests that further empirical testing of Kahn's theoretical propositions will enhance the utility of engagement research to the HRD domain. One of Kahn's core propositions concerns the role of meaningfulness, safety and availability as universal psychological conditions that, when fulfilled, connect the wider work context with the experience of engagement. In this study, it was argued that training fulfils these conditions, yet these propositions were not directly tested, and so future research should examine the relationships between various HRD practices, the psychological conditions of meaningfulness, availability and safety, and personal role engagement. This will shed light on whether meaningfulness, safety and availability are the key psychological processes that connect HRD practices with engagement. Moreover, it will provide a deeper understanding of the psychological effects of HRD practices and in doing so may provide opportunities to integrate theories in ways that contribute to a more holistic and deeper understanding. For example, Gruman and Saks (2011) suggest that Kahn's (1990) psychological conditions and Bakker and Demerouti's (2008) job demands-resources model could be integrated to provide more comprehensive explanations.

Second, by focusing on personal role engagement future researchers will be encouraged to examine the subjective experience of engagement within particular

organisational contexts (Kahn 1990). Considering that much research on work engagement has been ‘bemoaned’ for neglecting to examine such features (Jenkins and Delbridge 2013; Purcell 2014), there is ample opportunity for researchers to further explore how occupational and organisational contexts may vary in the extent to which they are engaged by different HRD practices. In doing so, a more nuanced and contextualised understanding of HRD can develop. This in turn will provide HRD practitioners with specific recommendations that are suited to their needs, and in doing so could connect with calls to further explore the individualised experience of engagement through academic and practitioner collaborations (Shuck and Rocco 2014).

Third, the study shows that further comparison of personal role engagement and work engagement may be warranted. One area to focus on is the conceptual differences between the two constructs. For example, personal role engagement and work engagement differ conceptually with regard to their ‘state’ properties: personal role engagement has fundamentally been viewed as a transient and focused state that fluctuates during and across workdays in response “to the momentary ebbs and flows of those days” (Kahn 1990, 693), whereas work engagement has been conceptualised as a ‘persistent and pervasive’ state of mind (Schaufeli et al. 2002). Future research may want to explore these temporal properties by examining the effects of engagement on performance across various time periods. These studies would also benefit from including supervisor-rated and/or objective performance indicators, such as appraisal ratings, sales data, or observational behavioural checklists. Another area to focus on is the wider theoretical and nomological net of engagement. It may be useful to examine whether personal role engagement has a wider set of antecedents and outcomes than work engagement given that this study suggests that it represents a more holistic and synergistic construct than work engagement.

Lastly, there is an opportunity for researchers to critically examine the construct of work engagement and its specific connection with wellbeing and health. This study has shown evidence that work engagement may not be the panacea for all workplace issues – there may be more powerful constructs for certain purposes, in this case for evaluating and improving HRD practices and performance interventions. Given that there is evidence to suggest that the work engagement construct may overlap with job burnout (Cole et al. 2012) and may be psychometrically flawed (Wefald et al. 2012), there is a need to critically examine the use and value of work engagement. This is not to say that work engagement is a redundant construct, but the continued assertion that it is “an independent, distinct concept...characterized by vigor, dedication, and absorption” (Schaufeli and Bakker 2010, 13) should at least be questioned and scrutinised. It might be that work engagement has a more focused and specific role given that it focuses on energy and identification with work activities so that work is enjoyable and fulfilling (Schaufeli and Bakker 2010). Therefore, research may consider focusing on the specific functional pathways that connect work engagement with intrinsically motivating work activities that enable personal initiative and proactivity.

Practical implications

Organisations wishing to increase employee performance may consider helping employees to connect with their work roles emotionally, cognitively and socially (Kahn 1990). For example, line managers could encourage employees to express their true feelings and opinions through team meetings and personal development workshops, and HRD practitioners could design workplace development programmes that tailors learning to individual work roles, promotes social relationships and connects the individual with the wider contribution and impact that their work role has within the organisation (Kahn and Heaphy 2014). This 'soft' approach may work better in some organisations than others,

particularly those that already value employee engagement and wellbeing as goals in themselves (Jenkins and Delbridge 2013). It may be more challenging for organisations that adopt a more universally 'hard' approach to HRM and employee relations, in which performance and productivity are the primary objectives. These organisations may not want their employees to express their thoughts and feelings or to find wider meaning in their work, especially if it might cause resistance and heightened expectations of the employment relationship. HRD practitioners should be cognisant of these different contexts, and should alter their approach accordingly. In such organisations, instrumental HRD practices may be more useful to drive change. For example, providing technical training opportunities that build human capital could be utilised to enhance both performance and engagement, as this study has empirically demonstrated. Building a business case for continued investment in training and development will also be important as there will be a pressure to maintain tight managerial and economic control (Jenkins and Delbridge 2013), and evidence suggests that when employees perceive that their organisation invests in their training and development they will be more engaged (Shuck et al. 2014). However, HRD practitioners should try to include some softer forms of practice so that the balance of the employment relationship is maintained.

In order to monitor and evaluate the success of HRD interventions, 'soft' or 'hard', practitioners could use Soane et al's (2013) personal role engagement measure to assess engagement levels before and after to evaluate how the intervention has improved the psychological connection between the individual and their work role, and will give an indication of the potential impact on performance levels. By utilising this measure consistently over time, organisations will be able to monitor the relative success of different interventions and will be able use this evidence to adapt and enhance HRD practices to best suit the changing needs of their workforce.

Study limitations

There are a few limitations of this study that should be kept in mind when considering the implications of the findings. Firstly, even though the study verified the factor structures to test for common method bias, there remains the issue of cross-sectionality (Maxwell and Cole 2007). Longitudinal studies are needed to fully confirm the casual relationship between HRD practices, engagement, and performance. Another limitation is that this study used self-report measures of performance behaviours. Although self-assessed performance measures are valid ways of gaining performance information (Vance et al. 1988), they can be inflated in self-reports compared to boss-ratings (Heidemeier and Moser 2009), and may not always reflect objective performance (Pransky et al. 2006). To mitigate against these risks, a set of performance scales were chosen that were validated across different organisations and self-/supervisor-assessed ratings (see Griffin et al. [2007] for details). Related to this, this current study focused on one type of HRD practice; namely training. HRD includes a range of practices, such as career development and workplace learning (Shuck and Rocco 2014). A final limitation is that the sampling method utilised did not allow for the appreciation or examination of organisational, industry or societal context. It is increasingly acknowledged that neglecting to consider the impact of the wider organisational environment on research findings can limit or reduce the validity and reliability of those findings (Johns 2006). Moreover, the salience of different performance foci (e.g., individual vs team; in-role vs extra-role) is likely to vary across different industry and occupational contexts (Griffin et al. 2007).

Conclusion

To conclude, this paper found that personal role engagement was a more powerful predictor of work role behaviours than work engagement, and was a stronger mediator than work engagement of the relationships between training perceptions and work role

behaviours. This suggests that the personal role engagement theory may be more useful when examining psychological processes that underpin the relationships between HRD practices and performance outcomes than work engagement theory. Overall, HRD research would benefit from exploring, expanding and testing the propositions made by personal role engagement theory in more depth. HRD practitioners should consider how training and development practices can be better designed to foster engagement.

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Table 1. Comparing the conceptual foundations of personal role engagement and work engagement

Engagement construct	Definition	Operationalisation	Measurement	Theoretical Framework	The link to job performance
Personal role engagement	<p>Engagement is the act of “harnessing...organization members’ [preferred] selves to their work roles” (Kahn 1990, 694).</p> <p>A psychological state that alternate between pure forms of engagement (i.e., employment of self) and disengagement (i.e., withdrawal of self) along a continuum (Kahn 1990).</p>	<p>An engaged employee will “employ and express themselves physically, cognitively and emotionally during role performances” (Kahn 1990, 694).</p> <p>“Engagement reflects... a common cause of the investment of the various energies” (Rich et al. 2010, 619).</p> <p>Engagement involves activation, positive affect, and a focused role that allows the individual to connect with the wider work context (Soane et al. 2013).</p>	<p>Soane et al’s (2013) ISA scale</p> <p>Intellectual engagement I focus hard on my work I concentrate on my work I pay a lot of attention to my work</p> <p>Social engagement I share the same work values as my colleagues I share the same work goals as my colleagues I share the same work attitudes as my colleagues</p> <p>Affective engagement I am enthusiastic in my work I feel positive about my work I feel energetic in my work</p>	<p>Kahn’s (1990) psychological conditions of meaningfulness, availability and safety. These conditions mirror a relational psychological contract and act to mediate the relationship between the work context (e.g., job characteristics, emotional resources, supervisory relations) and engagement.</p>	<p>Engagement focuses the investment of personal energies and aspects of the self into the work role and so ‘full and active’ performance in the job will result (Rich et al. 2010).</p>
Work engagement	<p>“A positive, fulfilling, work-related state of mind” (Schaufeli et al. 2002, 74).</p> <p>A psychological state that is “persistent and pervasive...(and) not focused on any particular object, event, individual, or behavior” (Schaufeli et al. 2002, 74).</p>	<p>An engaged employee has a strong sense of vigor (i.e., energy and resilience), dedication (i.e., involvement and enthusiasm), and absorption (i.e., pleasant state of immersion) in work activities (Schaufeli et al. 2002)</p> <p>“a high level of energy and strong identification with one’s work” (Schaufeli and Bakker 2010, 13).</p>	<p>Schaufeli et al’s (2002) UWES-9</p> <p>Vigor At my work, I feel bursting with energy At my job, I feel strong and vigorous When I get up in the morning, I feel like going to work</p> <p>Dedication I am enthusiastic about my job My job inspires me I am proud on the work that I do</p> <p>Absorption I feel happy when I am working intensely I am immersed in my work I get carried away when I’m working</p>	<p>Job resources (e.g., autonomy, social support, performance feedback) and personal resources (e.g., optimism, self-efficacy, resilience) trigger a motivational process that leads to engagement. Job demands (e.g., work pressure, emotional demands, physical demands) strengthen the relationship between job/personal resources and engagement.(Bakker and Demerouti 2008)</p>	<p>Engagement directs an individual’s efforts towards the completion of work tasks and activities (Parker and Griffin 2011).</p>

Table 2. Means, standard deviations, and correlations of the variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	-	-	-									
2. Age	41.45	11.69	-.29	-								
3. Tenure	9.96	8.94	-.25	.51	-							
4. Management responsibility	-	-	.03	.02	-.07	-						
5. Training perceptions	3.37	0.88	.09	-.01	.02	-.19	(.90)					
6. Work engagement	3.13	0.80	.03	.04	.06	-.28	.49	(.94)				
7. Personal role engagement	3.59	0.67	.06	.05	.06	-.14	.59	.69	(.91)			
8. Task proficiency	3.97	0.94	-.06	.28	.12	.14	.14	.23	.39	(.95)		
9. Task adaptability	3.53	0.90	.06	.12	.04	-.08	.24	.33	.44	.66	(.82)	
10. Task proactivity	3.17	1.05	.10	-.10	-.07	-.18	.27	.42	.38	.31	.65	(.94)

Note: Cronbach's alpha reliability scores given in parentheses. $r \pm .10$ $p=.05$; $r \pm .14$ $p=.001$; $r \pm .18$ $p=.001$

Table 3. Confirmatory factor analyses of the engagement constructs

	χ^2 (df)	$\Delta\chi^2$ (df)	AIC	BIC	RMSEA	CFI	SRMR
1 factor alternative	1941.00*** (135)		11425.52	11626.24	0.21	0.64	0.12
2 factor alternative	1479.30*** (134)	461.70***(1)	10965.81	11170.25	0.19	0.73	0.11
3 factor alternative	1413.66*** (132)	65.64***(2)	10904.18	11116.05	0.18	0.75	0.10
4 factor alternative	1127.91*** (129)	285.75***(3)	10624.42	10847.45	0.16	0.80	0.09
5 factor alternative	708.92*** (125)	418.99***(4)	10213.44	10451.33	0.12	0.88	0.06
6 factor	444.95*** (120)	263.97***(5)	9959.47	10215.94	0.09	0.94	0.05

Note: 2 factor (ISA-Intellectual, UWES-Absorption, ISA-Affective, UWES-Dedication, UWES-Vigor) / (ISA-Social); 3 factor (ISA-Intellectual, UWES-Absorption, ISA-Affective, UWES-Dedication) / (UWES-Vigor) / (ISA-Social); 4 factor (ISA-Intellectual, UWES-Absorption) / (ISA-Affective, UWES-Dedication) / (UWES-Vigor) / (ISA-Social); 5 factor (ISA-Intellectual) / (UWES-Absorption) / (ISA-Affective, UWES-Dedication) / (UWES-Vigor) / (ISA-Social); 6 factor (ISA-Intellectual) / (UWES-Absorption) / (ISA-Affective) / UWES-Dedication) / (UWES-Vigor) / (ISA-Social);

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4. Confirmatory factor analyses of all latent variables

	χ^2 (df)	$\Delta\chi^2$ (df)	AIC	BIC	RMSEA	CFI	SRMR
1 factor alternative	3128.00***(152)		14104.13	14316.00	0.25	0.40	0.17
2 factor alternative	2073.49***(151)	1054.51***(1)	13051.63	13267.21	0.21	0.61	0.16
3 factor alternative	1630.39***(149)	443.10***(2)	12612.52	12835.54	0.18	0.70	0.16
4 factor alternative	972.60***(146)	657.79***(3)	11960.73	12194.91	0.14	0.83	0.12
5 factor alternative	636.14***(142)	336.46***(4)	11632.27	11881.31	0.11	0.90	0.09
6 factor	551.16***(137)	84.98***(5)	11557.29	11824.92	0.10	0.92	0.08

Note: 2 factor (training perceptions, work engagement, personal role engagement)/(task proficiency, task adaptability, task proactivity); 3 factor (training perceptions)/(work engagement, personal role engagement)/(task proficiency, task adaptability, task proactivity); 4 factor (training perceptions)/(work engagement, personal role engagement)/(task proficiency)/(task adaptability, task proactivity); 5 factor (training perceptions)/(work engagement, personal role engagement)/(task proficiency)/(task adaptability)/(task proactivity); 6 factor factor (training perceptions)/(work engagement)/(personal role engagement)/(task proficiency)/(task adaptability)/(task proactivity)

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Multiple regressions and relative weight analyses for predicting work role behaviours

	Predicting task proficiency						Predicting task adaptability						Predicting task proactivity					
	Step 1	Step 2	Relative Weight (rw)	Rescaled rw	Lower Bound rw	Upper Bound rw	Step 1	Step 2	Relative Weight (rw)	Rescaled rw	Lower Bound rw	Upper Bound rw	Step 1	Step 2	Relative Weight (rw)	Rescaled rw	Lower Bound rw	Upper Bound rw
Gender	.00	-.02	.00	0.1	-.03	.01	.08	.06	.01	1.7	-.01	.02	.06	.05	.01	2.3	-.01	.03
Age	.27***	.26***	.06	23.8	.02	.12	.15*	.14*	.01	6.6	-.01	.05	-.08	-.08	.01	3.4	-.01	.03
Tenure	-.02	-.03	.01	2.6	-.02	.02	-.04	-.04	.00	0.5	-.03	.01	-.05	-.05	.00	1.8	-.01	.03
Management responsibility	.21***	.19***	.03	11.8	-.01	.08	.01	-.01	.00	1.0	-.02	.02	-.07	-.08	.02	8.12	-.01	.05
Work engagement	.28***	-.01	.03	12.7	-.01	.06	.33***	.05	.05	25.7	.02	.10	.41***	.27***	.10	47.2	.05	.17
Personal role engagement		.41***	.12	48.2	.05	.20		.39***	.14	64.4	.08	.20		.19**	.08	37.2	.03	.13
R ² (Δ R ²)	.17***	.25***					.13***	.21***					.20***	.22***				
		(.09***)						(.08***)						(.02**)				

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 6. Multiple regression analyses for the effects of training perceptions on work role behaviours via work engagement and personal role engagement

Predictor	Predicting work engagement	Predicting personal role engagement	Predicting task proficiency			Predicting task adaptability			Predicting task proactivity		
			Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b	Step 1	Step 2a	Step 2b
Gender	.00	.02	-.01	-.01	-.02	.07	.07	.06	.05	.05	.04
Age	.02	.08	.24***	.24***	.20***	.11	.10	.08	-.11	-.11	-.13*
Management responsibility	-.19***	-.03	.16**	.21***	.18***	-.02	.01	-.01	-.13*	-.07	-.13*
Tenure	.02	.01	.01	.00	-.01	.01	.01	.01	-.01	-.01	-.01
Training perceptions	.47***	.59***	.17**	.06	-.12	.23***	.16*	.01	.24***	.09	.05
Work engagement				.23***			.16*			.32***	
Personal role engagement					.49***			.38***			.32***
R ² (ΔR^2)	.29***	.37***	.10***	.14***	.25***	.07***	.09***	.16***	.11***	.18***	.17***
				(.04**)	(.15***)		(.02*)	(.12***)		(.07***)	(.06***)

Note: Standard betas are given.. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 7. PROCESS output results for the indirect effect of training perceptions on work role behaviours via work engagement and personal role engagement

	Work engagement as mediator				Personal role engagement as mediator			
	Est. (SE)	Lower Bound	Upper Bound	Effect Size	Est. (SE)	Lower Bound	Upper Bound	Effect Size
Training perceptions - Task proficiency	.11 (.03)	.05	.19	.11	.30 (.04)	.22	.40	.29
Training perceptions - Task adaptability	.08 (.03)	.01	.15	.08	.22 (.05)	.12	.33	.22
Training perceptions - Task proactivity	.18 (.04)	.10	.27	.15	.22 (.07)	.09	..35	.19

Note: Effect size is the completely standardised indirect effect as outlined by Preacher and Kelley (2011).