

Meaningful Work: A Sleeping Giant in the Context of Other Work Characteristics, Work Engagement, and Other Employee Outcomes

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Abstract

Few approaches to work are informed by models of human meaning. This is unfortunate, since dimensions of meaning are often associated with end states that are desired by many individuals, including well-being. By implication, work characteristics that facilitate meaning should be associated with important employee outcomes. A web-based survey of employed Americans and Canadians (n=574) was conducted to examine this. Meaningful work was measured as work characteristics that enable individuals to become self-actualized, realize their life purpose, values, and goals, have positive social impacts, experience feelings of accomplishment, and achieve their highest career advancement within an organization. Compared to other work characteristics, meaningful work characteristics had the strongest positive correlations with work engagement, and a work adjustment composite of job satisfaction, organizational commitment, and (low) turnover cognitions. They also had the strongest negative correlations with disengagement, exhaustion (i.e., burnout), depression symptoms, and stress symptoms. Finally, meaningful work characteristics predicted unique variance in work engagement, work adjustment, and exhaustion, over and above other work characteristics and select personality variables. Overall, the results suggest that meaningful work plays a significant role in affecting critical employee outcomes. Meaningful work may be an untapped ‘sleeping giant’ in approaches to work motivation, as well as organizational psychology in general.

Keywords: meaningful work, job characteristics, employee engagement, burnout, job satisfaction, organizational commitment, turnover, depression, stress

There are many models of work characteristics (e.g., Balzer et al., 2000; Campion & Thayer, 1985; Hackman & Oldham, 1975; Parker & Wall, 1998; Spector, 1997). Yet, few models focus primarily on the work characteristics that may be of greatest importance to individuals. For example, what work characteristics best facilitate the realization of fundamental needs, goals, and values? Studies of meaning, and meaningful work, may inform this focus.

Meaning often entails issues of “life meaning, purpose, and coherence” (Ryff, 2000, p. 132). Baumeister (1991) identified four main needs for meaning: purpose (including goals and fulfillments), values, efficacy and self-worth. Meaning is also inherent in constructs related to personal strivings (Emmons, 1991), current concerns (Klinger, 1998), personal projects (Little, 1983), life longings (Kotter-Grühn, Wiest, Zurek, & Scheibe, 2009), self-determination (Ryan & Deci, 2000) and conceptions of the ‘good life’ (King & Napa, 1998). Several researchers have developed multidimensional models of meaning (Ebersole, 1998; Emmons, 1999; Ryff & Keyes, 1995; Wong, 1998). Other thinkers have proposed constructs that are similar to dimensions of meaning (Antonovsky, 1990; Csikszentmihalyi, 1990; Kobasa, 1979; Maslow, 1970; Rogers, 1961).

Meaningful work, specifically, is defined as *aspects of one’s job or work environment that facilitate the attainment or maintenance of one or more dimensions of meaning*. For example, perceptions of autonomy and control in one’s life are commonly-found dimensions of meaning (Antonovsky, 1990; Csikszentmihalyi, 1990; Kobasa, 1979; Ryan & Deci, 2000; Ryff & Keyes, 1995). Job characteristics such as job autonomy and decision latitude (Hackman & Oldham, 1975; Theorell, 2003) would appear to be conducive for attaining or maintaining perceptions of autonomy and control in one’s life.

Why might meaningful work characteristics be important for employees and employers? First, dimensions of meaning correspond to what individuals say they most desire from life (King & Napa, 1998; Kotter-Grühn et al., 2009) and what has made them happiest in the past (Sheldon, Elliot, Kim, & Kasser, 2001). Second, perceived meaningfulness is associated with higher levels of well-being (Keyes, 2007; McKnight & Kashdan, 2009; Ryan & Deci, 2000; 2001; Ryff & Keyes, 1995). Third, survey research suggests that North Americans are attaching more importance to meaningful work (i.e., interesting and socially-useful work; Davis, Smith, & Marsden, 2009). Yet, levels of job satisfaction and work ethic have been slipping for decades in North America and Europe (England, 1991; Highhouse, Zickar, & Yankelevich, 2010; Twenge, Campbell, Hoffman, & Lance, 2010; Weaver, 1997). Research has also increased on the meaning of work (e.g., Ardichvili & Kuchinke, 2009; Arnold, Turner, Barling, Kelloway, & McKee, 2007; Chalofsky & Krishna, 2009; Flesher, 2009; Kuchinke, 2009; Naus, van Iterson, & Roe, 2007). This is reflected in recent theoretical reviews and integrations (Rosso, Dekas, & Wrzesniewski, 2010; Steger & Dik, 2005). Meaningful work has been the focus of several best sellers in the popular business press (e.g., Crawford, 2009; Pink, 2009; Sinek, 2009; Ulrich, Ulrich, & Goldsmith, 2010). Thus, meaningful work is desirable and healthy, and is increasing in importance within professional and lay populations.

The Meaningful Work Inventory (MWI) was recently developed as a comprehensive employee survey of work characteristics that are evidence-based in their associations with critical employee outcomes (Fairlie, 2010, in press). The MWI was also developed to measure work characteristics that are aligned with models of meaning. The MWI’s eight global subscales

measure intrinsic rewards, extrinsic rewards, leadership and organizational features, supervisory relationships, co-worker relationships, organizational support, work demands and balance, and meaningful work. While all MWI subscales contain items that are aligned with models of meaning, the last subscale is perhaps more closely aligned with models of meaning (see Table 1). This includes facets of self-actualizing work (e.g., enabling one to fulfill one's potential), realizing one's life purpose, values, and goals through work, social impact (i.e., enabling one to have a positive impact on people and things), feelings of personal accomplishment, and believing in one's highest career advancement within an organization.

Despite growing interest, meaningful work has yet to be 1) differentiated from employee outcome variables, 2) examined for its relationships with employee outcome variables, and 3) examined for its unique relationships with employee outcome variables while controlling for other work characteristics and personality variables. The employee outcome variables include work engagement, exhaustion (as a component of burnout), overall job satisfaction, organizational commitment, turnover cognitions, depression symptoms, and stress symptoms.¹ In short, meaningful work has not been systematically studied in the nomological net of other work characteristics and employee outcome variables represented by well-known and/or multi-item measures. The current study will address these needs.

Method

Participants

The sample consisted of 574 respondents who were 18 years of age or older, and at least part-time employed. The modal profile was female (71%), American (54%)², full-time self- or other-employed (93%), and in a supervisory position (63%). The mean age was 46.42 ($SD = 10.42$).

Materials

Personality Variables. Nine items were developed by the author to measure personality variables that have been associated with well-being, work performance, and/or organizational change readiness. The traits were behavioural activation and behavioural inhibition (Carver & White, 1994; Gable, Reis, & Elliot, 2000), emotional self-control (Carver & Scheier, 1999), routine-seeking (Oreg, 2003), internal locus of control and generalized self-efficacy (DeNeve & Cooper, 1998; Judge & Bono, 2001; Judge, Locke, Durham, & Kluger, 1998; Judge, Thoresen, Pucik, & Welbourne, 1999), dispositional optimism (Scheier, Carver, & Bridges, 2001), and the awareness and acceptance dimensions of mindfulness (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007). The items hail from a

¹ While developing the MWI, Fairlie (2010) examined MWI item validities using measures of burnout, overall job satisfaction, organizational commitment, and turnover cognitions. However, the MWI was in draft form, and the employee outcome variables were represented by single items developed by the author. The MWI was also not co-administered with measures of work engagement, depression symptoms, and stress symptoms.

² A further 28% of respondents resided in Canada.

more comprehensive personality inventory in development, and were chosen on the basis of high factor loadings. The items were administered to support a secondary, unrelated study. The routine-seeking and mindfulness-awareness items were worded to denote an absence of these traits.

Meaningful Work Inventory (MWI). The MWI is a 64-item measure of work characteristics that have correlated with critical employee outcomes in past research (Fairlie, 2010). It also measures work characteristics that are aligned with models of meaning. Factor analyses informed the development of eight subscales from 53 items: meaningful work, intrinsic rewards, extrinsic rewards, leadership and organizational features, supervisory relationships, co-worker relationships, organizational support, and work demands and balance. The MWI also includes items that measure connection to a ‘bigger picture’, authentic self-expression at work, and callings. These items are not part of any subscale. The subscales are reliable (α 's = .76 to .96), relatively free of social desirability bias (median $r = .13$ and $r = .19$ with impression management and self-deceptive enhancement, respectively), and demonstrate concurrent validity as correlates of exhaustion, job satisfaction, organizational commitment, turnover cognitions, and health symptoms (median $r = .40$; Fairlie, 2010). The current focuses solely only on the eight subscales.

Utrecht Work Engagement Scale (UWES-9). The UWES-9 measures vigor, absorption, and dedication as dimensions of work engagement (Schaufeli, Bakker, & Salanova, 2006). Previous research has reported adequate reliability and validity (Schaufeli et al., 2006; Shimazu et al., 2008).

Oldenburg Burnout Inventory (OLBI). The 16-item OLBI was used to measure the exhaustion component of burnout (i.e., the consequence of intense physical, affective and cognitive strain) and disengagement (i.e., distancing oneself from one's work; Demerouti, Bakker, Vardakou, & Kantas, 2003). Previous research has reported adequate reliability and validity for the OLBI (Demerouti & Bakker, 2008).

Job Satisfaction, Organizational Commitment, and Turnover Cognitions. Several items were developed by the author to measure other well-known employee outcome variables such as overall job satisfaction (1 item), organizational commitment (6 items), and turnover cognitions (5 items; i.e., thoughts of quitting, perceptions of job alternatives, search and turnover intentions; see Bozeman & Perrewé, 2001).

Depression, Stress and Anxiety Scales (DASS-21). The DASS is a 42-item measure of depression, anxiety and stress symptoms (Lovibond & Lovibond, 1995a). The 7-item short forms for depression and stress symptoms were used. Extensive reliability and validity has been reported (Lovibond & Lovibond, 1995a; Lovibond & Lovibond, 1995b).

Procedure

The participants passively accessed the website of a Canadian leadership training and development company. All participants were invited to complete the web-based survey battery. Participants completed the survey battery following the completion of a brief measure of emotional intelligence.

Results

Preliminary Factor Analyses

Factor analyses were conducted to reduce some measures to a smaller number of composites to support more concise correlation and regression analyses.

The nine personality trait items were subjected to a principal axis factor analysis with varimax rotation. The mindfulness items failed to load greater than $|.40|$ on a primary factor, and were removed. A second analysis was conducted on the 7 remaining items. Two factors were extracted with Eigenvalues greater than one, accounting for 56.28% of total variance in the rotated solution. A scree plot also suggested the presence of two factors. Five items that loaded on the first factor were summed to form a composite scale, labeled 'positive personality' (i.e., behavioural activation, emotional self-control, internal locus of control, generalized self-efficacy, and dispositional optimism). The Cronbach alpha coefficient for this composite scale was .74. The two items that loaded on the second factor, which suggested more negative personality variables (i.e., behavioural inhibition, routine-seeking) were not internally-consistent, and were not summed to form a composite scale.

The nine UWES-9 items were subjected to a principal axis factor analysis with varimax rotation. One factor was extracted with an Eigenvalue greater than one, accounting for 69.99% of the total variance in the rotated solution. A scree plot also suggested the presence of one factor. These items were summed to form a composite work engagement scale.

The twelve items measuring job satisfaction, organizational commitment, and turnover cognitions were also subjected to a principal axis factor analysis with varimax rotation. A single item failed to load greater than $|.40|$ on a primary factor, and was removed. A second analysis was conducted on the 11 remaining items. Two factors were extracted with Eigenvalues greater than one, accounting for 74.19% of total variance in the rotated solution. A scree plot suggested that a one-factor solution was more parsimonious (60.68% of the variance). The eleven items were summed to form a work adjustment composite of high overall job satisfaction and organizational commitment, and low turnover cognitions.

Main Factor Analyses

Factor analyses were also undertaken to investigate the measurement independence of meaningful work characteristics, as measured by the MWI meaningful work subscale, and several employee outcome variables. The purpose of this analysis was to provide early evidence that perceptions of meaningful work cannot be accounted for by other work constructs.

Forty-six items were subjected to a principal axis factor analysis with varimax rotation. These included the 10 items from the MWI meaningful work subscale, and all items from the UWES-9, the OLBI, and the author-developed measures of overall job satisfaction, organizational commitment, and turnover cognitions. Six factors were extracted with an Eigenvalue greater than one, accounting for 66.60% of the total variance in the rotated solution. A scree plot also suggested the presence of six factors, although a 3-factor solution may be more parsimonious.

In the six-factor solution (see Table 2), 8 out of 10 items from the MWI meaningful work subscale loaded together on a primary factor, with some cross-loadings with work engagement, disengagement, and exhaustion items from other measures. Two of the 10 meaningful work items loaded primarily with items measuring overall job satisfaction, organizational commitment, and turnover cognitions.³ Thus, employee perceptions of meaningful work are reasonably independent of measures of critical employee outcome variables.

Psychometric Properties & Correlations

Table 3 contains means, standard deviations, Cronbach alphas coefficients, and correlations. Most measures demonstrated high internal consistency (α 's $\geq .83$). The alpha for work demands and balance ($\alpha = .62$) was lower than usual for that subscale (Fairlie, 2010).

All work characteristics correlated significantly with all employee outcomes (r 's = .27 to .77, all $p < .001$). Meaningful work characteristics had the strongest correlations with work engagement ($r = .77, p < .001$), disengagement ($r = -.77, p < .001$), and work adjustment ($r = .73, p < .001$). Both meaningful work characteristics and intrinsic rewards had the highest correlations with depression symptoms ($r = -.46, p < .001$). Only work demands and balance was more strongly correlated with exhaustion (by a magnitude of only -.02). Work demands and balance also had the strongest correlation with stress symptoms ($r = -.41, p < .001$). Although not tabled, meaningful work characteristics had the highest mean absolute value correlation with work engagement, disengagement, exhaustion, and work adjustment (mean $r = 1.70$). Intrinsic rewards was ranked second (mean $r = 1.64$).

Hierarchical Regressions

Hierarchical regression analyses were conducted to examine the extent to which meaningful work characteristics could predict unique variance in important employee outcome variables, over and above other work characteristics and personality variables. Work engagement, exhaustion, and work adjustment were chosen as outcome variables. Prior to the regression analyses, correlations were computed among the personality variables and employee outcomes to eliminate personality variables with potentially weak effects. The positive personality composite and mindfulness-awareness were retained for further analysis. In each analysis, meaningful work characteristics were entered as a third block following positive personality and mindfulness-awareness (i.e., first block) and the other seven work characteristics (i.e., second block).

Tables 4 to 6 contains the results of hierarchical regression analyses. In summary, meaningful work characteristics accounted for unique variance in work engagement [$\Delta R^2 = .15, F(1, 384) = 144.82, p < .001$], exhaustion [$\Delta R^2 = .03, F(1, 385) = 22.79, p < .001$], and work adjustment [$\Delta R^2 = .07, F(1, 381) = 76.34, p < .001$]. Meaningful work characteristics, as a predictor variable, also remained significant in the third block for work engagement [$\beta = .62,$

³ These items have loaded on the MWI meaningful work subscale in other, larger samples (Fairlie, 2010).

$t(384) = 11.73, p < .001$], exhaustion [$\beta = -.28, t(385) = -4.77, p < .001$], and work adjustment [$\beta = .41, t(381) = 8.74, p < .001$].

The reduced beta weight for intrinsic rewards in the third block for all three analyses likely reflects a high correlation observed between meaningful work and intrinsic rewards ($r = .78$). Past research supports the orthogonality of these dimensions (Fairlie, 2010). Nonetheless, intrinsic rewards contains some facets that are aligned with models of meaning. As an aside, tolerance statistics for the regression analysis were non-significant, suggesting little multicollinearity in the final equation. Linear relationships among predictors must be very strong (i.e., $R > 0.90$) before multicollinearity begins to degrade solutions (Fox, 1991).

Discussion

Meaningful work characteristics were relatively independent of employee outcome variables. Additionally, and relative to other work characteristics, meaningful work characteristics had the strongest relationships with work engagement, disengagement, and work adjustment (i.e., overall job satisfaction, organizational commitment, and turnover cognitions). Meaningful work characteristics was also a stronger correlate of exhaustion and depression symptoms than most other work characteristics.

Meaningful work characteristics also accounted for unique variance in work engagement, exhaustion, and work adjustment scores while controlling for other work characteristics and personality variables. Specifically, and echoing past research (Stringer, 2008), meaningful work characteristics was the strongest unique predictor of work engagement. This dimension accounted for 15% of the total variance in work engagement scores.

The observed relationships between meaningful work characteristics and the outcome variables were unusually large by research standards (Cohen, 1992). They were also larger than those found among other work characteristics and similar outcomes (e.g., Eby, Freeman, Rush, & Lance, 1999; Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985). It could be argued that some of the study measures are redundant. However, the MWI measures perceptions of one's job and workplace characteristics. Outcome measures evaluate self-reported perceptions of one's cognitive or affective states (e.g., work engagement, exhaustion) and summary attitudes and behaviours with respect to one's organization (e.g., organizational commitment, turnover cognitions). The measures also differ in terms of generality-specificity. It could also be argued that the observed relationships were a function of common method variance (i.e., self-report, web administration). However, this problem is less prevalent than once believed (Crompton & Wagner, 1994). Additionally, other work characteristics measured by the MWI, and administered under the same conditions in this study, had weaker relationships with outcome variables (e.g., co-worker relationships).

The role of meaningful work in engagement and other employee outcomes was substantive in this study, indicating its relevance for industrial-organizational psychology. Yet, meaningful work is under-represented in many models and measures of work characteristics, which typically focus on intrinsically rewarding work characteristics (Campion & Thayer, 1985; Hackman & Oldham, 1975; Parker & Wall, 1998; Warr, 1994). While intrinsic rewards had strong relationships with employee outcomes in this study, they were smaller than those associated with meaningful work characteristics.

Practical Implications

The study has several practical implications. These implications inform several actions for industrial-organizational psychologists and HR professionals to maintain and increase levels of meaningful work within organizations. First, meaningful work characteristics could be audited on employee surveys. Items should measure levels of self-actualizing work, realization of purpose, goals, and values, social impact, feelings of personal accomplishment, and perceived ability to meet one's highest career goals within the organization. Similar questions yielded the strongest correlations with nearly every important employee outcome measured in the current study.

Second, existing opportunities for meaningful work should be clearly communicated and understood within organizations. Employees may perceive low levels of meaningful work on employee surveys. Yet, such perceptions may be inaccurate (see Spector, 1992). Strategies could be crafted to rectify this problem. For example, job descriptions could be re-visited with employees. Their attention could be drawn to tasks and activities that, for example, support the realization of their full potential as individuals. Thus, there may be 'unused' opportunities for meaningful work within each employee's purview. Employees may also not be aware of the objective social impacts of their work. Managers could assist direct reports in analyzing their jobs to understand the proximal and distal relationships that exist between their jobs and the overall vision and strategy.

Programs could also be created to develop deeper social connections among employees and clients. This could lead to a number of outcomes, including a more thorough understanding of individual social impacts. For example, client satisfaction interviews and surveys could include questions on client impact. The results could be shared with employees. Client testimonial stories and videos could be shared with employees at annual meetings and town halls. Both employees and clients could participate in focus groups on client service improvements. Finally, employees and clients could be 'twinned' for regular contact to discuss product and service improvements. In all of the above examples, employees would experience greater exposure to the human recipients of their work.

Employees could also be supported in changing their mindsets about their jobs. Personality traits and cognitive styles may predispose employees to perceive higher or lower levels of meaningful work. For example, perceptions of job autonomy have long been linked to employee attitudes and behaviour (Terry & Jimmieson, 1999; Theorell, 2003). These perceptions may stem, in part, from personality traits such as locus of control (Wang, Bowling, & Eschleman, 2010). Mindfulness, in general, entails a greater attention and awareness around one's characteristic cognitive and affective styles (Brown & Ryan, 2003). Industrial-organizational psychologists could assist employees in breaking down their jobs, considering alternative ways of perceiving them, and ultimately shifting their perspectives on them (e.g., from 'work' to 'play'; Langer & Moldoveanu, 2000). Team assessments of personality traits and cognitive styles could inform these activities, if amenable to employees.

Third, training programs could be developed to assist managers in understanding models of human meaning that underlie meaningful work (e.g., Wong, 1998). Managers could use models of meaning as a 'lens' to understand how their decisions and behaviour could impact employee engagement and performance. Specifically, typical managerial work activities

(Borman & Brush, 1993) could be reviewed and executed differently to promote higher levels of meaningful work among direct reports. For example, developing and mentoring people is a common dimension of managerial work (Yukl, Wall, & Lepsinger, 1990). Managers could use theories of self-actualization to inform employee development activities and ensure that development is equally employee- and organization-centered.

Fourth, career development programs could be revised to better assist employees in achieving their long-term career goals within their current organization. This appears to be a feature of meaningful work. These long-term career goals may be closely aligned with employees' sense of self or identity, and as such, exist independent of any one employer. While long-term career-tracking is evident within many organizations, some programs may be more organization-centered than employee-centered. Career counsellors with a deep understanding of human meaning could ensure that career tracking programs are also aligned with the life purposes, goals, and values of employees. These ideas are central to protean (Hall, 1996) and boundaryless (Arthur, 1994) career concepts. These concepts entail a more subjective perspective on career progression, with a focus on self-fulfillment, and personal goals rather than externally-defined goals.

Fifth, managers and direct reports could be assisted in their collaborative efforts to re-design jobs. For example, job crafting (Berg, Wrzesniewski, & Dutton, 2010) and brainstorming techniques could be employed to append job descriptions to include tasks and responsibilities that provide meaningful work, in addition to serving the organizational strategy. Employees, for example, could be asked for ideas on how they could have a larger impact on people. In terms of self-actualization, employees could be asked to imagine what they would do for the rest of their lives if they didn't have to work for money. Themes could be distilled from this exercise, and jobs could be re-designed to address these themes in ways that are faithful to the needs of both employees and organizations.

Finally, organizations could promote meaningfulness in employees' non-work lives. Studies show that less than 8% of individuals' life longings are work-related (Kotter-Grühn et al., 2009). Surveys, focus groups, and interviews could be used to identify the nature of these other longings, and inform ways to support them. While this is not an employer's responsibility, research shows that contributing directly to employees' non-work lives can lead to higher commitment (Cohen, 1997). While some supports may be monetary (e.g., increased benefits), organizations may benefit more by sponsoring activities that directly address, for example, employee needs for social impact. For example, employees could engage in several paid days of community work per year. Non-work time during compressed work weeks and sabbaticals could be utilized for continuing education. A suite of opportunities could be pre-developed in alignment with various aspects of meaning for the sake of cost and efficiency.

The above recommendations, if implemented, would have humanistic benefits for employees. However, they may also be profitable for organizations. Meaningful work characteristics was a substantive predictor of all employee outcomes measured in the current study. These outcomes are further associated with other organizational performance outcomes. For example, exhaustion, as a component of burnout, has been linked to poor employee health (Shirom, Melamed, Toker, Berliner, & Shapira, 2005), absenteeism (Lee & Ashforth, 1996), lower work performance (Wright & Bonett, 1997), and turnover (Wright & Cropanzano, 1998).

Job dissatisfaction has also been linked to these distal outcomes (Eby et al., 1999; Hackett, 1989; Judge, Thoresen, Bono, & Patton, 2001). Turnover cognitions have been shown to predict actual turnover (Tett & Meyer, 1993). Finally, work engagement has been linked to several business outcomes across thousands of business units (Harter, Schmidt, & Hayes, 2002). In short, organizational policies and programs based on meaningful work may provide a 'win-win' for both employers and employees.

Limitations and Future Directions for Research

The current study is not without theoretical, methodological, and statistical limitations. The nature of these limitations are discussed, below, in addition to directions for future research to address these limitations.

First, the study was based on a convenience sample that was overweighted by females and individuals in supervisory positions. If feasible, future research on meaningful work should take advantage of probability sampling methods (e.g., Kidder & Judd, 1986; Mangione, 1995). Additionally, the study relied solely upon self-report data (i.e., mono-method bias). Self-report data may be associated with response sets (Crocker & Algina, 1986) and method variance effects (Spector & Brannick, 1995). Future studies may be conducted using other methods of data collection (e.g., behavioural observations, ratings by others). The research was also cross-sectional in nature. Thus, there are restrictions on the causal interpretations that can be made. Longitudinal and experimental methods could be employed to more accurately assess changes in the levels of employee outcome variables as a function of meaningful work.

With respect to measures, the study relied on an opportunistic measurement of a limited number of personality variables. A Big Five personality inventory, for example, would have more adequately represented the 'personality space'. Big Five factors have already been linked to job satisfaction (Judge, Heller, & Mount, 2002; Tokar & Subich, 1997) and burnout (Bakker, Van Der Zee, Lewig, & Dollard, 2006). However, internal locus of control and generalized self-efficacy, which were measured in the current study, are key components of core self-evaluations (i.e., self-esteem, generalized self-efficacy, locus of control, neuroticism). These evaluations, as a unified construct, have been linked to job satisfaction (Dormann, Fay, Zapf, & Frese, 2006; Judge & Bono, 2001; Judge, Bono, Erez, & Locke, 2005) and burnout (Best et al., 2005). Thus, the prediction of these employee outcomes by meaningful work, over and above some of these positive traits, speaks to the potentially substantive impact of meaningful work.

One of the most significant contributions to a follow-up research plan would be the employment of structural equation modeling (SEM). The exploratory factor structure found in the present study (i.e., meaningful work versus employee outcomes) could be tested against competing structures (i.e., confirmatory factor analysis). Additionally, given the number of separate outcome variables examined in the current study, structured equation modeling could also be employed to estimate mediated relationships among several variables in a simultaneous fashion (Iacobucci, 2008). Structural equation modeling will be conducted when more homogeneous samples are acquired.

Conclusion

Meaningful work characteristics were shown to be strong correlates and unique predictors of several employee outcome variables. These characteristics were also more strongly related to these outcomes, relative to other work characteristics. Additionally, meaningful work characteristics was the largest unique predictor of work engagement and work adjustment scores (i.e., overall job satisfaction, organizational commitment, and turnover cognitions). The current results suggest that meaningful work, in the form of self-actualizing work, realizing one's life purpose, values, and goals through work, having a social impact through work, feelings of personal accomplishment, and believing in one's highest career advancement within an organization, are overlooked sources of work engagement, job satisfaction, organizational commitment, and retention. Yet, meaningful work is under-represented in many models and measures of work characteristics. This observation, together with the current findings, suggest that meaningful work characteristics may be a proverbial 'sleeping giant' in approaches to work motivation, and organizational psychology in general.

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Appendix: Tables

Table 1.

Meaningful Work Inventory Subscales

[Removed for copyright reasons]

Table 2.

Factor Analysis of MWI Meaningful Work and Other Employee Outcome Measures.

Items	Factors					
	1	2	3	4	5	6
UWES-9 Absorption	.74					
UWES-9 Vigor	.73					
UWES-9 Vigor	.73					
UWES-9 Dedication	.72					
UWES-9 Absorption	.71					
UWES-9 Absorption	.68					
UWES-9 Dedication	.64	.48				
UWES-9 Dedication	.61					
UWES-9 Vigor	.58					
OLBI Exhaustion	-.54			-.41		
OLBI Disengagement	-.50	-.40				
OLBI Disengagement	-.49					
OLBI Disengagement	-.45					
<i>MWI Meaningful Work</i>		.79				
<i>MWI Meaningful Work</i>		.78				
<i>MWI Meaningful Work</i>		.73				
<i>MWI Meaningful Work</i>		.70				
<i>MWI Meaningful Work</i>		.68				
<i>MWI Meaningful Work</i>		.60				
<i>MWI Meaningful Work</i>		.54	.44			
<i>MWI Meaningful Work</i>	.46	.50				
OLBI Disengagement						
Organizational Commitment			.81			
Organizational Commitment			.79			
Organizational Commitment			.78			
Organizational Commitment			.75			
Organizational Commitment			.74			
<i>MWI Meaningful Work</i>			.51			
Turnover Cognitions			.49			
Overall Job Satisfaction	.42	.41	.49			
<i>MWI Meaningful Work</i>			.40			

Notes. For copyright reasons, item labels have been substituted with the name of the associated measure or variable. Only factor loadings $\geq |.40|$ are displayed.

Table 2. (Cont'd)

Factor Analysis of MWI Meaningful Work and Other Employee Outcome Measures.

Items	Factors					
	1	2	3	4	5	6
OLBI Exhaustion				.76		
OLBI Exhaustion				.70		
OLBI Exhaustion				.67		
OLBI Exhaustion				-.59		
OLBI Exhaustion				-.56		
OLBI Disengagement				.53		
OLBI Disengagement				.46		
OLBI Exhaustion				.46		
Turnover Cognitions					-.76	
Turnover Cognitions					-.75	
Turnover Cognitions					-.71	
Turnover Cognitions			.41		.42	
OLBI Disengagement						.46
OLBI Disengagement						

Notes. For copyright reasons, item labels have been substituted with the name of the associated measure or variable. Only factor loadings $\geq |.40|$ are displayed.

Table 3.
Means, Standard Deviations, Reliability Coefficients & Correlations.⁴

	Mean	S.D.	Alpha	Correlations					
				9.	10.	11.	12.	13.	14.
1. Meaningful Work	46.90	14.00	.94	.77	-.77	-.52	.73	-.46	-.32
2. Intrinsic Rewards	39.87	11.00	.92	.66	-.71	-.49	.69	-.46	-.33
3. Extrinsic Rewards	14.23	4.61	.83	.39	-.46	-.34	.60	-.33	-.30
4. Leadership & Org. Features	46.65	13.69	.95	.42	-.52	-.40	.69	-.37	-.30
5. Supervisory Relationships	43.60	13.20	.94	.39	-.49	-.39	.55	-.39	-.32
6. Co-Worker Relationships	27.44	6.08	.94	.30	-.35	-.28	.37	-.33	-.28
7. Organizational Support	28.52	7.45	.85	.50	-.54	-.46	.57	-.42	-.35
8. Work Demands & Balance	9.76	2.77	.62	.27	-.34	-.54	.33	-.34	-.41
9. UWES-9 Work Engagement	44.92	12.29	.95		-.76	-.59	.63	-.44	-.28
10. OLBI Disengagement	18.86	4.63	.85			.67	-.74	.54	.42
11. OLBI Exhaustion	18.48	4.15	.84				-.51	.55	.58
12. Work Adjustment	49.74	15.86	.93					-.46	-.33
13. DASS Depression Symptoms	10.73	4.52	.92						.75
14. DASS Stress Symptoms	11.79	4.27	.90						

Notes. Variables 1 through 8 are measured by the Meaningful Work Inventory (MWI). UWES-9 Work engagement is a composite of UWES-9 Vigor, Absorption, and Dedication. Work Adjustment is a composite of overall job satisfaction, organizational commitment, and turnover cognitions.

N = 574. All *rs* *p* < .001.

⁴ Personality variables have been omitted for space considerations.

Table 4.
Regression Analysis for Work Engagement.

Variable	B	<i>SE B</i>	β	r^2	Δr^2
Step 1				.16***	
Positive Personality	.88	.14	.30***		
Mindfulness-Awareness	-2.77	.74	-.18***		
Step 2				.46	.30***
Positive Personality	.33	.12	.11**		
Mindfulness-Awareness	-1.64	.62	-.11**		
Intrinsic Rewards	.68	.07	.60***		
Extrinsic Rewards	.03	.14	.01		
Leadership & Org. Features	.04	.05	.04		
Supervisory Relationships	-.05	.05	-.05		
Co-Worker Relationships	-.05	.09	-.03		
Organizational Support	.02	.11	.01		
Work Demands & Balance	-.09	.20	-.02		
Step 3				.61	.15***
Positive Personality	.15	.11	.05		
Mindfulness-Awareness	-1.58	.53	-.11**		
Intrinsic Rewards	.21	.07	.19**		
Extrinsic Rewards	-.04	.12	-.01		
Leadership & Org. Features	-.06	.04	-.06		
Supervisory Relationships	.02	.04	.02		
Co-Worker Relationships	-.07	.08	-.04		
Organizational Support	.02	.09	.01		
Work Demands & Balance	-.05	.17	-.01		
Meaningful Work	.55	.05	.62***		

Notes. Work characteristics are measured by the Meaningful Work Inventory (MWI). Mindfulness-Awareness was reverse-coded. Work Engagement is a composite of UWES-9 Vigor, Absorption, and Dedication.
 N = 394. ** $p < .01$. *** $p < .001$.

Table 5.
Regression Analysis for Exhaustion.

Variable	B	<i>SE B</i>	β	r^2	Δr^2
Step 1				.17***	
Positive Personality	-.29	.05	-.29***		
Mindfulness-Awareness	1.04	.25	.20***		
Step 2				.45	.28***
Positive Personality	-.11	.04	-.12**		
Mindfulness-Awareness	.84	.21	.17***		
Intrinsic Rewards	-.08	.02	-.21**		
Extrinsic Rewards	.07	.05	.07		
Leadership & Org. Features	-.01	.02	-.04		
Supervisory Relationships	-.01	.02	-.04		
Co-Worker Relationships	-.01	.03	-.02		
Organizational Support	.01	.04	.01		
Work Demands & Balance	-.66	.07	-.43***		
Step 3				.48	.03***
Positive Personality	-.08	.04	-.08		
Mindfulness-Awareness	.84	.21	.17***		
Intrinsic Rewards	-.01	.03	-.02		
Extrinsic Rewards	.08	.05	.08		
Leadership & Org. Features	.00	.02	.01		
Supervisory Relationships	-.02	.02	-.08		
Co-Worker Relationships	-.01	.03	-.01		
Organizational Support	.01	.04	.02		
Work Demands & Balance	-.66	.07	-.43***		
Meaningful Work	-.09	.02	-.28***		

Notes. Work characteristics are measured by the Meaningful Work Inventory (MWI).

Mindfulness-Awareness was reverse-coded.

N = 395. ** $p < .01$. *** $p < .001$.

Table 6.
Regression Analysis for Work Adjustment.

Variable	B	<i>SE B</i>	β	r^2	Δr^2
Step 1				.04***	
Positive Personality	.54	.20	.14**		
Mindfulness-Awareness	-2.17	1.01	-.11*		
Step 2				.61	.57***
Positive Personality	-.26	.14	-.07		
Mindfulness-Awareness	-.52	.67	-.03		
Intrinsic Rewards	.51	.07	.35***		
Extrinsic Rewards	.63	.15	.18***		
Leadership & Org. Features	.47	.06	.39***		
Supervisory Relationships	.06	.06	.05		
Co-Worker Relationships	.03	.10	.01		
Organizational Support	-.04	.12	-.02		
Work Demands & Balance	-.23	.23	-.04		
Step 3				.68	.07***
Positive Personality	-.44	.13	-.12**		
Mindfulness-Awareness	-.51	.61	-.03		
Intrinsic Rewards	.13	.08	.09		
Extrinsic Rewards	.58	.13	.17***		
Leadership & Org. Features	.39	.05	.32***		
Supervisory Relationships	.11	.05	.09*		
Co-Worker Relationships	.01	.09	.00		
Organizational Support	-.06	.11	-.03		
Work Demands & Balance	-.20	.21	-.04		
Meaningful Work	.47	.05	.41***		

Notes. Work characteristics are measured by the Meaningful Work Inventory (MWI). Work Adjustment is a composite of overall job satisfaction, organizational commitment, and turnover cognitions. Mindfulness-Awareness was reverse-coded.

N = 391. ** $p < .01$. *** $p < .001$.