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Employee Engagement, Job Attitudes, And Work Behavior: A Meta-analytic Test Of The Incremental Validity Of Employee Engagement

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EMPLOYEE ENGAGEMENT, JOB ATTITUDES, AND WORK BEHAVIOR: A META-ANALYTIC TEST OF THE INCREMENTAL VALIDITY OF EMPLOYEE ENGAGEMENT

by

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ABSTRACT

Although the commercially-popular construct of employee engagement has gained attention in scholarly work in recent years, several questions about the construct remain unresolved. In the current paper, I addressed several issues with previous engagement research by (a) meta-analyzing the relationship between employee engagement, task performance, contextual performance, absenteeism, and turnover, (b) using these meta-analytic estimates to fit a series of models in which engagement predicts both specific and broadly-defined work behaviors, and (c) estimating the unique predictive validity of engagement above and beyond job attitudes. Several regression equations and structural equation models were tested using a combination of previous meta-analytic correlations (k = 95) and original meta-analytic correlations (k = 12). Results of the study found that engagement does offer unique incremental validity over several work-related behaviors (task performance, ΔR^2 = .037; contextual performance, ΔR^2 = .025; turnover, ΔR^2 = .083), however this incremental validity has been over-stated in previous research. Results also found that the *A-factor* (higher order attitudinal construct) is strongly related to *behavioral engagement* (higher order behavioral construct) (Γ = .62) suggesting that when attitudes and behaviors are examined on the same level of specificity there is a strong predictive relationship between the two. These results suggest that although engagement may not be as unique as previous research has implied it does offer utility in the sense that it acts as a proxy for the *A-factor*.

ACKNOWLEDGMENTS

I would like to thank several people for all the work they put into helping me develop both as a person and as a researcher. I would first like to thank Dr. Robert Pritchard for teaching me that research can be more than just working with students in a lab setting. Second, I would like to thank all of the faculty at the University of Central Florida that took the time to teach us about the field of I/O Psychology and the research that helped it grow. Third, I would like to thank Dr. Colin Roth for coming all the way over from Germany several times to help lead me and Dr. Daniel Schmerling through large scale consulting/research projects. Fourth, I would like to thank Dr. Dana Joseph who was willing to take on a fifth year student on his way out the door after his previous advisor retired. There was absolutely no reason she needed to do that for me but I do greatly appreciate it. Fifth, I would like to thank Dr. Barbara Fritzsche and Dr. Clint Bowers for serving on my committee and giving me valuable feedback in the development of this final draft.

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INTRODUCTION

Kahn (1990) was the first individual to theorize about employee engagement, describing engaged employees as those who were physically, cognitively, and emotionally connected with their work roles. Engagement has since become a wildly popular concept in management practice and, more recently, organizational sciences. The inclusion of employee engagement in mainstream management lexicon has been attributed to Gallup's popular book, *First, Break All the Rules (*Buckingham & Coffman, 1999; Winton, 2009), which spent 93 weeks on the *New York Times* bestseller list and argued that managers could create engaged employees by focusing on an individual's strengths instead of their weaknesses, putting employees in a position that will likely lead to success, giving individuals direction, but allowing them the autonomy to choose the best path to success, and finally selecting individuals into the position in which they are likely to succeed (Buckingham & Coffman, 1999). Further fueling the practitioner excitement over employee engagement, a recent well-publicized survey of over 7,000 workers found that only 29% of North American employees are fully engaged and 19% of those surveyed were completely disengaged and were providing minimal contributions to their work (Gallup Business Journal, 2005) - a state of affairs that has prompted many managers to use engagement-related practices to solve their local (dis)engagement problem. Following Kahn's introductory conceptualization and the Buckingham and Coffman book, many organizations have developed measures of employee engagement (e.g., Kenexa, Gallup, Dell, Caterpillar, Development Dimensions International, TalentKeepers; Lombardi, 2011). In fact, Macey, Schneider, Barbera, and Young (2009) recently commented on the popularity of engagement-related practices by

stating, “rarely has a term that represents a ‘soft’ topic resonated as strongly with business executives as employee engagement has in recent years” (p. xv).

While employee engagement-related products and strategies have been adopted in numerous organizations and consulting firms for over 10 years, the employee engagement trend in academic research has been slower to catch on than its commercial counterpart (Macey & Schneider, 2008; Meyer, Gagne, & Parfyonova, 2010). However, within the past 5-10 years, academic research on engagement has begun to increase. As evidence of this, Figure 1 displays the number of publications on the topic of employee engagement in five year increments over the last 25 years. The popularity of engagement in academic publications appears to be increasing exponentially, with over 600 engagement-related publications in the last five years alone (compared to only ~150 in the five years before that). As additional evidence supporting the academic fervor over the construct of employee engagement, a special issue of *Industrial and Organizational Psychology* (2008) and *Work & Stress* (2008) were recently dedicated to the topic, a recently released special issue in the *International Journal of Human Resource Management* (2013) was devoted to the topic, and three recent meta-analyses were published on engagement (Christian, Garza, & Slaughter, 2011; Harter, Schmidt, & Hayes, 2002; Newman, Joseph, & Hulin, 2010). In addition, a recent survey sent to academics by the Society for Industrial and Organizational Psychology (SIOP) and the Society for Human Resource Management (SHRM; N =134) found that the number one talent management issue rising in importance in the research literature was “Engaging Employees” (see Figure 2; Satterwhite et al., 2013). Clearly, the interest in employee engagement appears to span both the academic and applied sectors, and given the number of articles/special issues/meta-analyses that have been

concerned with engagement in recent years, the popularity of the construct appears to be thriving.

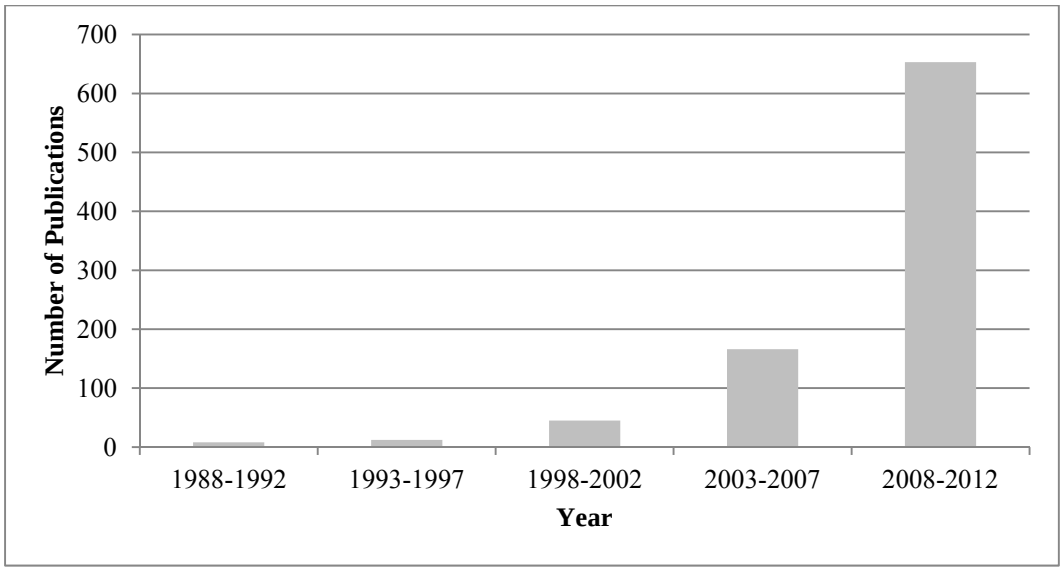

Figure 1: Employee Engagement Research over the Past 25 Years

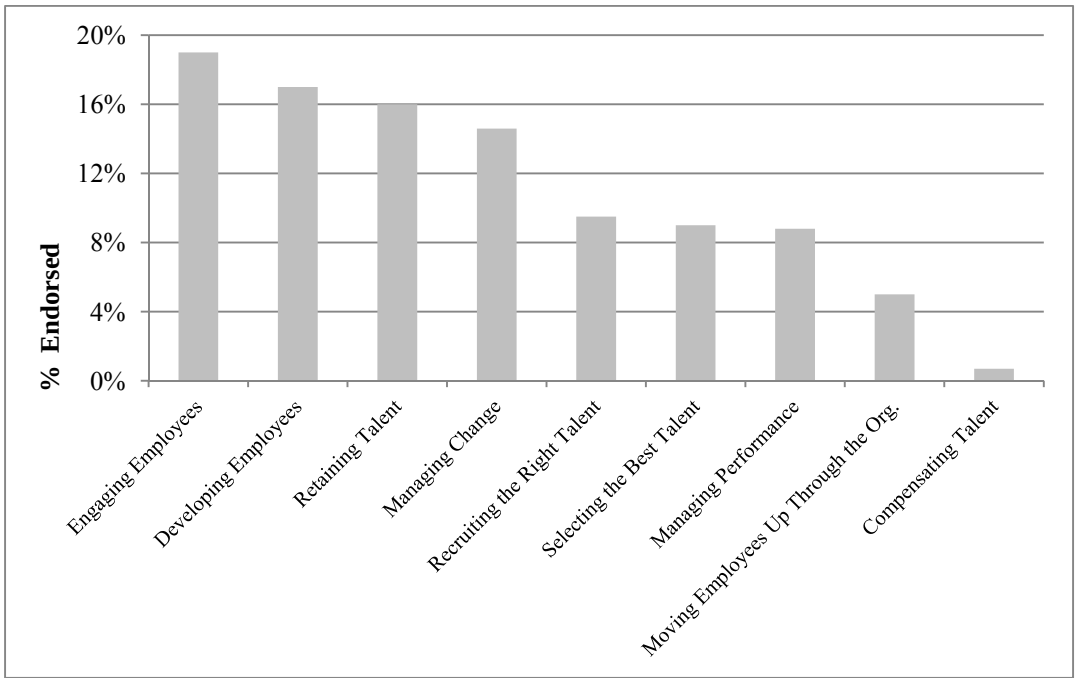

Figure 2: Response by Academics (*N*=134) to the Question: "What are the Two Most Important Talent Management Issues You See as Rising in Importance in the Research Literature?"

Despite growing interest in the field, controversy has plagued the advancement of the construct, and many question whether employee engagement is simply old wine in new bottles (e.g., Holwerda, 2007; Harter & Schmidt, 2008; Newman & Harrison, 2008). Specifically, questions remain regarding whether employee engagement offers an incremental contribution to the prediction of work behavior beyond traditional job attitudes. Newman and Harrison (2008) proposed that engagement is redundant with the traditional job attitudes of organizational commitment, job satisfaction, and job involvement. Similarly, Saks (2008) stated that engagement was "an imprecise definition and a repackaging of other constructs" (p. 42), Dalal, Brummel, Wee, and Thomas (2008) argued that engagement research was "in a state of disarray" (p. 52) partly due to its contamination with job satisfaction, and Albrecht (2010) contended that "it is important to recognize some overlap between engagement and other similar constructs such as organizational commitment, job involvement and job satisfaction" (p. 6). In summary, although engagement has become a popular construct within academia and within organizations, there are still many unanswered questions regarding what, if anything, the construct adds to the prediction of work behavior beyond well-established constructs (i.e., job attitudes).

Several recent meta-analyses have attempted to resolve the debate over what employee engagement adds both conceptually and empirically to the literature. Two meta-analyses in particular, Christian et al. (2011) and Newman et al. (2010), have contributed to our understanding of engagement's predictive validity beyond that of traditional job attitudes (i.e., job satisfaction, organizational commitment, and job involvement). Newman et al. (2010) conducted a meta-analytic investigation of the relationship between job attitudes and employee engagement in an attempt to quantify the potentially problematic redundancy between the two

constructs. Results indicated a latent correlation of 0.77 between job attitudes and employee engagement, which suggests engagement may offer very little in the prediction of work behavior over and above job attitudes. Christian et al. (2011) also conducted a meta-analysis between job attitudes and employee engagement, which found substantial relationships between engagement and job satisfaction (ρ = .53), organizational commitment (ρ = .59), and job involvement (ρ = .52). In addition, these authors formally tested the incremental validity of employee engagement above and beyond these attitudes, with results suggesting that engagement does offer unique prediction of task performance (ΔR^2 = .19) and contextual performance (ΔR^2 = .16) after controlling for satisfaction, commitment, and involvement. Although Christian et al. (2011) concluded that "engagement exhibits discriminant validity from, and criterion-related validity over, job attitudes" (p. 89), there are several reasons to re-investigate the incremental validity of engagement, despite Christian et al.'s initial results. First, the Christian et al. estimates are based on a small amount of data relating engagement to task and contextual performance (e.g., k = 4; N = 1,139 for estimates involving task performance and k = 5; N = 1,159 for estimates involving contextual performance) and instead of correcting primary study observed correlations for unreliability in task and contextual performance using observed reliabilities or artifact distributions, Christian et al. (2011) used .59 as an estimate of inter-rater reliability for task performance and .51 as an estimate of inter-rater reliability for contextual performance (an estimate that was taken from Christian, Edwards, & Bradley, 2010). This relatively low estimate of the reliability of job performance measures may have resulted in an overcorrection of these observed estimates. Second, although Christian et al. (2011) reported the incremental validity of employee engagement over job attitudes in predicting *specific* work behaviors (i.e., task

performance and contextual performance), the authors did not estimate the incremental validity of engagement when predicting two important work behaviors, namely absenteeism and turnover. Finally, it is unclear how strongly employee engagement predicts *broad* work behaviors (i.e., behavioral engagement, or the shared variance among task performance, contextual performance, and withdrawal behaviors). Recent meta-analytic evidence suggests job attitudes are robust predictors of broadly-defined work behaviors (r =.51; Newman et al., 2010; see also, Harrison, Newman, & Roth, 2006). Given the overlap of job attitudes with employee engagement and the strong relationship between job attitudes and broadly-defined work behaviors, it is questionable whether employee engagement offers any unique prediction of broadly-defined work behaviors above and beyond job attitudes.

In order to address these issues regarding the incremental validity of employee engagement, the current paper makes the following contributions: (a) the current paper investigated the relationship between engagement, task performance and contextual performance by providing updated meta-analytic estimates of these relationships, based on a larger database than Christian et al. (2011) while also estimating the relationship between engagement and withdrawal behaviors (i.e., absenteeism and turnover), (b) in order to examine the incremental validity of engagement in predicting *specific* work behaviors, I used meta-analytic data to examine whether engagement predicts task performance and contextual performance after controlling for job attitudes, and I compare these results to Christian et al.'s (2011) previous incremental validity estimates, and (c) I estimate a series of models based on meta-analytic data that examine the extent to which engagement predicts broadly-defined work behaviors above and beyond traditional job attitudes. Ultimately, these analyses seek to resolve the question of

whether employee engagement is “old wine in new bottles” (Macey & Schneider, 2008; p. 7) as I provide up-to-date meta-analytic tests of employee engagement’s unique contribution to the prediction of both specific and broad work behaviors.

DEFINING EMPLOYEE ENGAGEMENT

Although employee engagement has had many conceptualizations over the last two decades, Kahn (1990) was the first to formally describe the construct as "the simultaneous employment and expression of a person's preferred self in task behaviors that promote connections to work and to others, personal presence, and active full role performances" (p. 700). Through qualitative analysis, Kahn identified specific instances where individuals appeared to be more excited and happy about their roles. A particularly illustrative example Kahn used was;

> "A scuba-diving instructor at the summer camp taught a special class to advanced divers. He spent a great deal of time with the students both in and out of class and worked to share with them his personal philosophy about the ocean and the need to take care of its resources. In doing so, he experienced moments of pure personal engagement. He described one diving expedition in which he employed his self physically, darting about checking gear and leading the dive; cognitively, in his vigilant awareness of divers, weather, and marine life; and emotionally, in empathizing with the fear and excitement of the young divers." (1990, p. 700-701).

Unfortunately, 20 years after Kahn's seminal work on engagement, he noted that the field of engagement research remains plagued by definitional issues: "Engagement is an enormously appealing concept. We seem to intuitively understand what it means…..The problem, of course, is that many of us have different understandings of what engagement is" (Kahn, 2010, p. 20). Similarly, Saks (2008) described employee engagement as "an umbrella term for whatever one wants it to be" (p. 40) and Meyer and Gagne (2008) stated that "ultimately, employee engagement lacks a guiding framework" (p. 62). In a special issue of *Industrial and Organizational Psychology,* Macey and Schneider (2008) attempted to summarize and clarify the many existing definitions of engagement, which included (a) a psychological state of connection with one's job (Kahn, 1990), (b) a higher-order performance construct (Harrison et al., 2006), (c)

a disposition similar to positive affectivity (Staw, 2004), and (d) a combination of all three (Wellins & Concelman, 2005). Many authors have highlighted the idea that an agreed-upon definition has severely lagged behind the actual use of the construct in practice (Dalal et al., 2008; Fleck & Inceoglu, 2010; Kahn, 2010; Macey & Schneider, 2008; Robinson et al., 2004; Saks, 2006). This state of affairs has made the construct difficult to study because advancements of knowledge about the construct are stifled by a lack of clarity regarding the construct itself. For purposes of the current paper, I define employee engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, Bakker, & Salanova, 2006, p. 702), because it reflects common elements of most definitions of employee engagement which include the expression of oneself physically, emotionally, and cognitively towards one's role.

While I define employee engagement as an attitudinal state, others have defined engagement as a set of behaviors (Bernthal, 2004; Newman & Harrison, 2008; Towers-Perrin, 2003). Of particular interest is Newman and Harrison's (2008) concept of behavioral engagement as a nonredundant higher order behavioral construct instead of an attitudinal construct. This concept will be discussed in more detail later, but for now it is important that I use the term *engagement* and *attitudinal engagement* interchangeably throughout this paper, thus when I am referring to *engagement* throughout the paper I am will be referring to the attitudinal concept of engagement and not the behavioral engagement construct discussed by Newman and Harrison (2008).

Employee Engagement and Job Attitudes

An important part of the establishment of a new construct involves the ability to separate it both conceptually and empirically from other similar constructs. The development of engagement is no different, where recent research has discussed and criticized the conceptual and empirical overlap between engagement and job attitudes (Macey & Schneider, 2008; Newman & Harrison, 2008, Saks, 2008). In the following sections I will discuss the overlap of engagement with each of the three traditional job attitudes (i.e., job satisfaction, organizational commitment, and job involvement).

Job Satisfaction and Employee Engagement

Harter et al. (2002) defined engagement as "the individual's involvement and satisfaction with as well as enthusiasm for work" (p. 269). Notably, this definition includes both job satisfaction and job involvement as components of engagement, and for this reason, some have found it difficult to distinguish job satisfaction from engagement. The most widely used and influential definition of job satisfaction was proposed by Locke (1976), who defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job" (Locke, 1976, p. 1304). This definition includes both cognitive (appraisal) and affective (emotional) elements of one's job, which Locke thought interacted to form the job satisfaction construct. Kahn (1990) also discussed cognitive and affective components in his definition of engagement where he discussed the "preferred self" that promotes connections, "personal presence (physical, cognitive, and emotional), and active, full role performances." (p. 700). A positive evaluation of one's role (Smith, et al., 1969) as defined as part of job satisfaction, is conceptually similar to attention, or the amount of time one thinks about one's role (Rothbard,

2001), which is an aspect of employee engagement. Both concepts utilize the same referent (the role/job) and one is likely to be highly correlated with the other. The affective or emotional components of job satisfaction focus on the emotions an individual experiences based on the perception that the job allows the fulfillment of one's values (Locke, 1969). This is very similar to Schaufeli et al.'s (2002) conceptualization of engagement which includes the emotions of enthusiasm and significance. Although specific emotions were not proposed by Locke (1969) when discussing the fulfillment of one's values, it is likely that enthusiasm about one's job is an emotion one would experience.

In addition to the strong conceptual overlap between satisfaction and engagement, Newman and Harrison (2008) also highlighted several items from the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) that were very similar to items from a long-established measure of job satisfaction. Engagement examples include; "I am enthusiastic about my job" (Schaufeli & Bakker, 2003) and "I feel happy when I am working intensely" (Schaufeli & Bakker, 2003) and job satisfaction examples include; "Most days I am enthusiastic about my work" (Overall Job Satisfaction Scale, OJS; Brayfield & Rothe, 1951), and "I find real enjoyment in my work" (OJS; Brayfield & Rothe, 1951). These items are very similar in the way that they assess enthusiasm and enjoyment in one's work, suggesting the potential for substantial overlap between the actual measurement of the two constructs.

Finally, there have been several recent meta-analyses that have found strong relationships between job satisfaction and employee engagement. Christian et al. (2011) found a strong relationship between the two constructs ($\rho = .53$; $k = 20$, $N = 9{,}725$) and Newman et al. (2010) also found a strong relationship between job satisfaction and employee engagement ($\rho = .54$; $k =$

12, N = 5,300). Christian et al. (2011) included measures of disengagement (Oldenburg Burnout Inventory, OLBI) and engagement (UWES) where Newman et al. (2010) only included the UWES measure, which is the most commonly used measure of engagement in the literature. This conceptual overlap along with the abundant empirical and operational overlap helps us to further understand why engagement and job satisfaction may not be unique constructs, but instead share a large amount of variance.

Job Involvement and Employee Engagement

Kanungo (1982) identified job involvement as a cognitive state of an individual that is the result of the ability to satisfy intrinsic needs of the individual. Those who are involved in their jobs are individuals who satisfy critical psychological needs such as self-actualization, need for autonomy, need for achievement, etc. (Kanungo, 1979). Internalization of the work in a way that satisfies needs is a key concept within the involvement literature and is often discussed as the mechanism by which an individual becomes involved in his/her job (Kanungo, 1979; 1982; Lodahl & Kejner, 1965). Comparatively, Harter et al. (2002) defined engagement as "the individual's involvement and satisfaction with as well as enthusiasm for work" (p. 269). The definition itself, includes the term job involvement within itself, suggesting job involvement is a component of engagement.

Kanungo (1982) discussed job involvement as a cognitive state. This cognitive state leads to psychological identification with one's job which requires cognitive evaluations about the job. Job involvement is theoretically linked to the cognitive motivational process of intrinsic motivation where individuals direct cognitive attentional resources towards a specific task (Brown, 1996). Psychological identification and intrinsic motivation are extremely close to the

concepts of attention and absorption which Kahn (1990) identified as the two key cognitive components of employee engagement. Psychological identification with one's job as discussed by Kanungo (1982) is extremely similar to absorption, or engrossment in one's job (Kahn, 1990). The mechanisms through which involvement and engagement function as well as the facets which represent them all appear to have a substantial amount of conceptual overlap.

Like with job satisfaction, Newman and Harrison (2008) discussed several items from the UWES (Schaufeli & Bakker, 2003) that were very similar to items from long-established measures of job involvement. Examples of engagement items include; "Time flies when I am working" (Schaufeli & Bakker, 2003) and "It is difficult to detach myself from my job" (Schaufeli & Bakker, 2003) and examples of job involvement items include; "For me, mornings at work really fly by" (Job Involvement Scale, JIS; Lodahl & Kejner, 1965), and "I usually feel detached from my job" (Job Involvement Questionnaire, JIQ; Kanungo, 1982). These items are very similar in the way that they address the ideas of immersion and detachment from one's job which again suggests overlap in measurement of the two constructs.

Finally, recent meta-analyses have found similar results for the attitude of job involvement with regards to empirical overlap. Christian et al. (2011) found a strong relationship between job involvement and employee engagement ($\rho = .52$; $k = 5$, $N = 1{,}175$) and Newman et al. (2010) also found a strong relationship between the two constructs ($\rho = .61$; $k = 6$, $N = 1{,}331$).

Organizational Commitment and Employee Engagement

Wellins and Concelman (2005) suggested that to be engaged is to be actively committed to a cause. This definition of engagement is similar to affective organizational commitment (Meyer & Allen, 1994) because it focuses on the concept of belonging and personal meaning

(Macey & Schneider, 2008). Solinger et al. (2008) defined organizational commitment as "an attitude of an employee *vis-à-vis* the organization, reflected in a combination of affect (emotional attachment, identification), cognition (identification and internalization of its goals, norms, and values) and action readiness (a generalized behavioral pledge to serve and enhance the organization's interests)" (p. 80). The affective component of organizational commitment is a result of identification with one's organization. Those who identify with an organization have an intrinsic connection with the organization, its people, and the work. It is likely that this intrinsic connection helps fulfill critical psychological needs such as esteem and belonging. Individuals gain confidence, achievement, and a sense of family from organizations which leads to an emotional attachment to the organization.

Similarly, employee engagement has an affective/emotional component. More specifically, Erickson (2005) discussed engagement as passion and commitment and Wellins and Concelman (2005, p. 1) suggested that "to be engaged is to be actively committed, as to a cause" Although the referent of engagement and organizational commitment may be distinct when it comes to measurement, research has shown that individuals often lack the ability to distinguish between the organization and the work done for the organization (see Harter & Schmidt, 2008) suggesting that not only the mechanisms by which the two psychological states develop are similar, but that they also may manifest themselves in a similar manner.

Like with job satisfaction and involvement, Newman and Harrison (2008) discussed several items from the UWES (Schaufeli & Bakker, 2003) that were very similar to items from a long-established measure of organizational commitment. Examples of engagement include; "I am proud of the work I do" (Schaufeli & Bakker, 2003) and "My job inspires me" (Schaufeli &

Bakker, 2003) and examples of organizational commitment include; "I am proud to tell others that I am part of this organization" (Organizational Commitment Questionnaire, OCQ; Mowday et al., 1979), and "The organization really inspires the very best in me in the way of job performance" (OCQ; Mowday et al., 1979). These items are very similar in the way that they address the ideas of pride and inspiration in oneself. The only differences between the two are the points of referent (job vs. organization) however; research suggests that individuals have trouble distinguishing between the referent of job and organization on a daily basis which suggests that although they may be conceptually distinct they may not be operationally distinct (Harter & Schmidt, 2008).

Not unlike the previous two job attitudes, recent meta-analyses have also examined the empirical relationship between organizational commitment and employee engagement and found strong relationships of (ρ = .59; k = 14, N = 7,569; Christian et al., 2011) and (ρ = .54; k = 14, N = 9,522; Newman et al., 2010) with Newman et al. (2010) again focusing exclusively on the UWES.

The A-Factor

Given the aforementioned overlap between engagement and attitudes, many authors are still not convinced employee engagement offers anything unique to the prediction of work behavior beyond job attitudes (see Holwerda, 2007; Harter & Schmidt, 2008; Newman & Harrison, 2008, Newman et al., 2010). In an *Industrial and Organizational Perspectives* article, Newman and Harrison (2008) proposed that attitudinal engagement, as is currently conceptualized, is redundant with the *A-factor,* a latent job attitudes factor composed of the shared variance among job satisfaction, organizational commitment, and job involvement. In

other words, Newman and Harrison (2008) proposed that attitudinal engagement is not a unique construct, but instead, it is a combination of traditional job attitudes (job satisfaction, organizational commitment, and job involvement). This becomes even more intuitive when you look at the items used to measure both the traditional job attitudes and employee engagement that were mentioned earlier.

A recent meta-analysis by Newman et al. (2010) attempted to add some clarity to this issue plaguing the acceptance of employee engagement in academic circles. Using meta-analytic data, these authors found a correlation between employee engagement and the *A-factor* of $r = 0.77$ (see Figure 3). These results suggest that engagement is largely redundant with the *A-factor* and may not offer much conceptually and empirically beyond the study of job attitudes. A second model the authors tested involved attitudinal engagement as a sub-facet of the *A-factor* (see Figure 4) and the good relative fit of this model (RMSEA = 0.095; CFI = 0.96) suggested that attitudinal engagement can be represented as a facet of the *A-factor* (i.e., engagement overlaps with traditional job attitudes because it is a job attitude). However a full model examining this finding has yet to be examined.

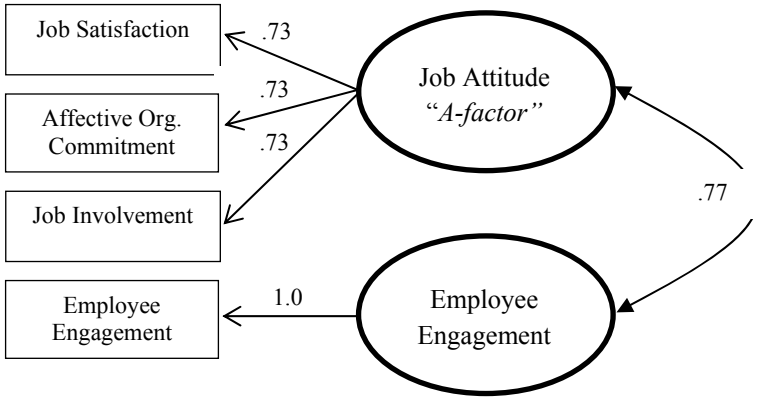

Figure 3: Model of relationship between *A-factor* and Employee Engagement (Newman, Joseph, & Hulin, 2010). RMSEA = 0.105; NNFI = 0.96; CFI = 0.96; SRMR = 0.039; harmonic mean *N* = 4,341. *Note:* Path coefficients are standardized estimates.

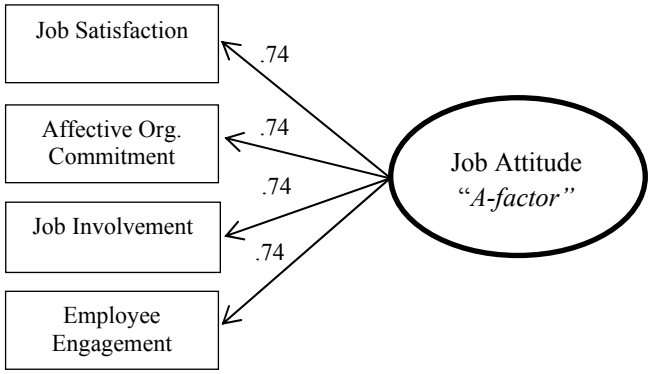

Figure 4: Engagement as a sub-facet of the *A-factor* (Newman, Joseph, & Hulin, 2010). RMSEA = 0.095; NNFI = 0.97; CFI = 0.96; SRMR = 0.041; harmonic mean *N* = 4,341. *Note:* Path coefficients are standardized estimates.

Employee Engagement and Work Behaviors

While attitudinal engagement's relationship with traditional job attitudes is important, perhaps the single most important reason for the recent trend of employee engagement-related

practices within organizations has been its intuitive and empirical relationship with employee work behaviors (Bakker, 2011; Harter, Schmidt, & Hayes, 2002. Intuitively, it is a relatively straightforward expectation that individuals who are engaged should have higher job performance than those who are not engaged. Empirically, however, the relationship between engagement and work behaviors is less than well-established. Although Christian et al. (2011) recently meta-analyzed the relationship between engagement and several specific work behaviors (i.e., task performance (ρ = .39; k = 4, N = 1,139) and contextual performance (ρ = .43; k = 5, N = 1,159), and Harter et al.'s (2002) recently published a meta-analysis demonstrating that engagement is related to unit-level productivity (ρ =.25; k = 21, N = 2,144), the majority of quantitative evidence supporting the relationship between engagement and work behaviors lies in the large number of white papers and organizational reports on the topic (e.g., Buckingham, 2007; Harter et al., 2007; Lombardi, 2011; Wiley, 2009) and publications that examine the relationship between engagement and self-reported job performance (Xanthopoulou, et al., 2008; Bakker and Xanthopoulu, 2009). The current paper seeks to address the current lack of substantial empirical evidence by theoretically and empirically addressing the relationship between engagement and work behaviors. The work behaviors of primary concern to organizations can be separated into three areas or dimensions: task performance, which consists of "activities that transform raw materials into the goods and services that are the organization's products… and activities that service and maintain core technical requirements", contextual performance, which consists of activities that do not contribute directly to the "organization's core technical processes but does maintain the broader organizational, social, and psychological environment in which the technical core must function" (Motowidlo, Borman, & Schmit, 1997,

p. 75), and withdrawal behaviors, which include lateness, absenteeism, and turnover (Hulin, 1984; 1991). While these withdrawal behaviors are not technically a form of job performance according to previous instantiations of criterion theory (e.g., Borman & Motowidlo, 1993), Harrison et al., (2006) have found that task performance, contextual performance, and withdrawal behaviors load onto a higher-order construct representing broadly-defined work behaviors, suggesting they should be included as part of the criterion space of work behaviors. In this section, I will discuss each of the types of work behaviors and their conceptual relationship with employee engagement.

Task Performance and Employee Engagement

In order to theoretically propose that engagement predicts task performance, I draw on the similarities between engagement and job attitudes (which are known predictors of performance; Judge, Thoresen, Bono, & Patton, 2001; Newman et al., 2010; Riketta, 2002) and the theory of planned behavior (Ajzen, 1985; 1991).

Research typically defines employee engagement as a psychological state (Fleck & Inceoglu, 2010; Kahn, 1990; Macey & Schneider, 2008). The conceptualization of employee engagement as a psychological state is very similar to that of an attitude (see Hulin & Judge, 2003) and in fact, research has found that employee engagement is highly correlated with job attitudes (Newman et al., 2010; Rich, 2006). As a psychological state, employee engagement includes the active investment of personal energies (vigor, attention, absorption) into one's role. The theory of planned behavior proposes that individuals' attitudes influence their behavior through their intentions (Ajzen; 1985; 1991). According to this framework, one of the strongest influences on an individual's behavior is his/her attitude towards the object/behavior. Because

employee engagement is very similar to an attitude towards one's role, it is likely that this will result in increased output within that role. Furthermore, engagement should also be related to task performance because engaged employees actively change their work environment by increasing on the job resources, such as pursuing supervisor feedback (Tims, Bakker, & Derks, *in press*) which, according the job demands-resources (JD-R) model, should increase job performance by increasing the job resources to job demands ratio (Bakker, Demerouti, & Verbeke, 2004).

Supporting these theories, a meta-analysis by Harter et al. (2002) found that employee engagement was strongly related to unit-level employee productivity ($\rho = .25$); however this was demonstrated at the business-unit level of analysis, which may not manifest itself at the individual unit of analysis (see Klein & Kozlowski, 2000). A meta-analysis by Christian et al. (2011) found a strong relationship between task performance and employee engagement ($\rho = .39$). However, Christian's meta-analysis was based on a small number of independent samples ($k = 4$, $N = 1{,}139$) and Christian substituted a rather low estimate of reliability for job performance (.59) that may have resulted in an overcorrection for unreliability and therefore, an artificially large estimate of the relationship between engagement and task performance. For this reason, I chose to recalculate the estimate using a more conservative approach to correcting for unreliability (i.e., using artifact distributions; Hunter & Schmidt, 2004) and in addition, I added several original studies to the meta-analytic estimate to increase the stability of the estimate. Given prior empirical results, as well as the overlap between engagement and job attitudes and supporting theory from the theory of planned behavior and the job demands-resource model, I expect engagement to be positively related to task performance.

Hypothesis 1: Attitudinal engagement is positively related to task performance.

Contextual Performance and Employee Engagement

Motowidlo et al. (1997) defined contextual performance to include both organizational citizenship behaviors (OCB's) and prosocial behaviors such as volunteering to carry out task activities that are not formally part of one's own job, helping and cooperating with others, and endorsing, supporting, and defending organizational objectives. Theoretically, engagement should be related to contextual performance for two distinct reasons. First, as I discussed earlier, job attitudes and employee engagement are very similar both conceptually and empirically and research has found that affective commitment is positively related to OCB's (Dalal, 2005; Organ & Ryan, 2005). For this reason, it is reasonable to believe that engagement should also be related to contextual performance. However, engagement should also be related to contextual performance for reasons that are unique from job attitudes as well. The job demand-resources model, which states that individuals who have access to key job resources (autonomy, social support, and learning opportunities) are more engaged in their jobs, found those individuals who were more engaged at work communicated and cooperated more with their coworkers (Bakker & Xanthopoulou, 2009). Lepine and Van Dyne (2001) also found that cooperative behavior, most likely through proper communication, was a form of contextual performance. Past research on attitudes and contextual performance and the JD-R and engagement seems to supports the notion that engaged employees are more likely to engage in extra-role behaviors (contextual performance). This may be the avenue through which employees can "go the extra mile" (Vance, 2006).

In addition, Christian et al.'s (2011) meta-analysis found a strong relationship between contextual performance and employee engagement (ρ = .43). However, similar to task performance, Christian et al. (2011) used reliability estimates they had calculated from a previous paper (Christian et al., 2010) for contextual performance which provided a substantially lower reliability estimate (.51) than the original studies. In addition, the resulting meta-analytic estimate was based on a small amount of data (k = 5, N = 1,159). For these reasons, I chose to re-examine the relationship between engagement and contextual performance more conservative reliability estimates. Because engaged employees are more likely to cooperate, communicate frequently, and engage in extra-role behaviors, I expect to find a positive relationship between employee engagement and contextual performance.

Hypothesis 2: Attitudinal engagement is positively related to contextual performance.

Withdrawal Behaviors and Employee Engagement

Interestingly, research has yet to meta-analyze the relationship between withdrawal behaviors and engagement. Hulin (1991) defined withdrawal behaviors as a set of behaviors that dissatisfied employees engage in to escape the work situation. These behaviors include: lateness, absenteeism, and voluntary turnover, which have been shown to represent a latent, higher-order "withdrawal" construct via meta-analysis (Harrison et al., 2006; Newman et al., 2010). This latent withdrawal construct has been discussed in withdrawal literature in several forms, including the progression of withdrawal (Hulin, 1991). The progression of withdrawal model suggests that individuals slowly progress from lateness to absenteeism, and finally to voluntary turnover. There is sufficient evidence to suggest that there is a progression of withdrawal, as research has found a lateness-absence progression (Clegg, 1983; Rosse, 1988) as well as an

absence-turnover progression (Burke & Wilcox, 1972; Krausz, Koslowsky, & Eiser, 1998). Theoretically, there are a number of reasons why engagement should be related to the latent construct of withdrawal. First, withdrawal theorists have suggested that withdrawal is a behavioral consequence of efforts to disengage in work tasks (e.g., Hanisch & Hulin, 1990), suggesting the original theoretical conceptualization of withdrawal was built on the idea that a lack of employee engagement actually causes withdrawal. Second, employees who are engaged in their work express positive emotional reactions to their roles, while disengaged employees may be physically present in their roles but cognitively absent (Rich, 2006). Because of the conceptual similarities between (dis)engagement and withdrawal, it is reasonable to expect negative correlations between engagement and absenteeism/turnover. It is important to note that lateness is an additional withdrawal behavior (see Hulin, 1991; Harrison et al., 2006) for which I would expect a negative relationship with engagement; however, there is no current research examining the relationship between lateness and engagement, and for this reason, I am excluding lateness from the current paper (because there is no data to meta-analyze).

Hypothesis 3: Attitudinal engagement is negatively related to absenteeism.

Hypothesis 4: Attitudinal engagement is negatively related to turnover.

The Incremental Validity of Employee Engagement

While employee engagement may be related to work behaviors, the empirical overlap of engagement and similar job attitudes would suggest that engagement may not offer much predictive validity above and beyond each of the traditional job attitudes. However, Christian et al (2011) found that engagement did provide incremental validity above and beyond each of the attitudes. Using meta-analytic regression where job satisfaction, organizational commitment, and

job involvement were entered in the first step and engagement was entered in the second step, engagement added 19% unique variance explained in task performance and 16% unique variance explained in contextual performance (see Table 1). These results suggest that engagement does, in fact, offer incremental predictive validity above and beyond traditional job attitudes when predicting task and contextual performance.

Christian et al.'s (2011) results suggest that employee engagement may in fact be a new and important attitudinal construct; however, these results are not without their issues. In an effort to more fully understand Christian et al.'s (2011) results, I used their meta-matrix of data to rerun the hierarchical regression. Using their exact data and procedure, I found slightly different results. In the re-analysis of Christian et al.'s results (see Table 1), engagement only explained 11% unique variance in task performance and 11% unique variance in contextual performance (compared to 19% and 16% reported in the original paper, respectively). These results suggest substantially less incremental validity than originally found in Christian et al., and as previously mentioned, these results were based on a small sample of studies, and the authors used reliability estimates that could have resulted in an artificial increase in incremental validity. Therefore, an updated meta-analysis and corresponding incremental validity analysis of these relationships is critical in order to gain a complete understanding of engagement's relationship with job-related behaviors. Nevertheless, I still expect engagement to add incremental validity to specific job-related behaviors, although I expect the incremental validity provided by engagement above and beyond job attitudes to be substantially less than Christian et al.'s (2011) original estimate. Finally, as previously mentioned, Christian et al. (2011) neglected to include withdrawal behaviors in their model, which Harrison et al. (2006) have shown are an important

component of individual effectiveness/behavioral engagement. Therefore, I include absenteeism and turnover as part of a re-estimate of Christian et al.'s model in the current study (Figure 6).

Hypothesis 5: Attitudinal engagement will exhibit incremental validity over job attitudes in predicting task performance.

Hypothesis 6: Attitudinal engagement will exhibit incremental validity over job attitudes in predicting contextual performance.

Hypothesis 7: Attitudinal engagement will exhibit incremental validity over job attitudes in predicting absenteeism.

Hypothesis 8: Attitudinal engagement will exhibit incremental validity over job attitudes in predicting turnover.

Table 1:

Incremental Validity Analysis for Task and Contextual Performance

	Christian et al. 2011 Results		Re-Analysis of Christian et al. 2011 Data	
	Task Performance		Task Performance	
Predictor	Step 1	Step 2	Step 1	Step 2
Job Satisfaction	**.33**		**.33**	
Organizational Commitment	-.01		-.006	
Job Involvement	**-.06**		**-.05**	
Engagement		**.43**		**.45**
Total R^2	**.11**	**.30**	**.09**	**.20**
ΔR^2		**.19**		**.11**
	Contextual Performance		Contextual Performance	
Predictor	Step 1	Step 2	Step 1	Step 2
Job Satisfaction	**.14**		**.14**	
Organizational Commitment	**.03**		.03	
Job Involvement	**.17**		**.17**	
Engagement		**.44**		**.45**
Total R^2	**.05**	**.21**	**.08**	**.19**
ΔR^2		**.16**		**.11**

Note. Bolded values are significant (p <.05); Harmonic mean N = 3,698 for task performance and 3,191 for contextual performance. Values are standardized estimates.

Christian et al.'s Model of Employee Engagement and Work Behaviors

In an effort to map the nomological network of engagement's antecedents and consequences, Christian et al. (2011) developed a conceptual framework in which job characteristics, transformational leadership, and various personality traits predict engagement, which subsequently predicts task and contextual performance (see Figure 5). Figure 5 presents

Christian et al.'s model, which was a mediation model where several job-related antecedents, (autonomy, task variety, task significance, feedback, transformational leadership, conscientiousness, and positive affect) were exogenous, engagement was a mediator, and task performance and contextual performance were endogenous outcomes. It is important to understand that for the purposes of Christian et al.'s model, task performance and contextual performance are being treated as completely distinct constructs that have no shared variance attributed to a higher-order performance criterion (despite evidence suggesting the two are indicators of the same latent construct; Harrison et al., 2006). The results of the Christian et al. (2011) model found moderate fit (χ^2 (25) = 679.80, $p < .001$; CFI = .85, RMSR = .10), with significant path coefficients between engagement and the outcomes of task performance (.36) and contextual performance (.38). As mentioned earlier, the current paper seeks to update the Christian et al. meta-analytic estimates and recalculate the estimates of the relationship between engagement and both task performance and contextual performance using the original reported reliability estimates of the criterion. Using the updated estimates, I will re-estimate the model and compare it with the original Christian et al. (2011) model in order to determine if the path coefficients representing the predictive validity of engagement are as large as previously thought. In addition, because previous research has indicated that engagement is a facet of the *A-factor* (Harrison et al., 2006), it is useful to re-estimate the Christian et al. (2011) model substituting the *A-factor* for engagement (Figure 7) in order to determine whether the *A-factor* predicts task and contextual performance more strongly than engagement alone (i.e., can we improve the prediction of task and contextual performance by using the *A-factor* instead of engagement alone?).

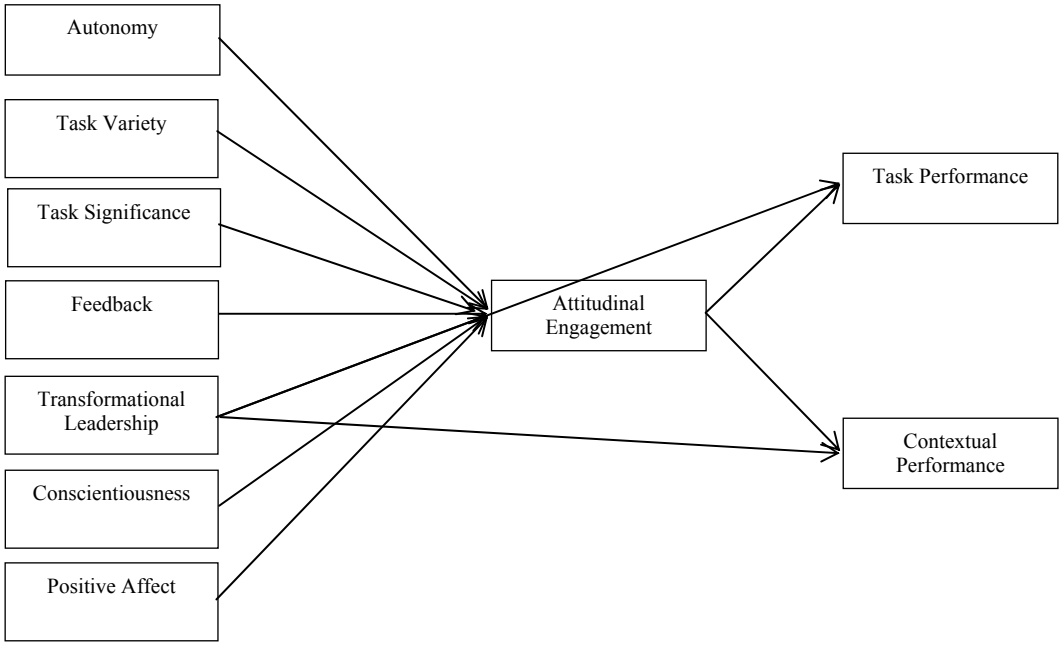

Figure 5: Christian et al. (2011) model. *Note:* model includes direct effects from task and contextual performance. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance were allowed to intercorrelate.

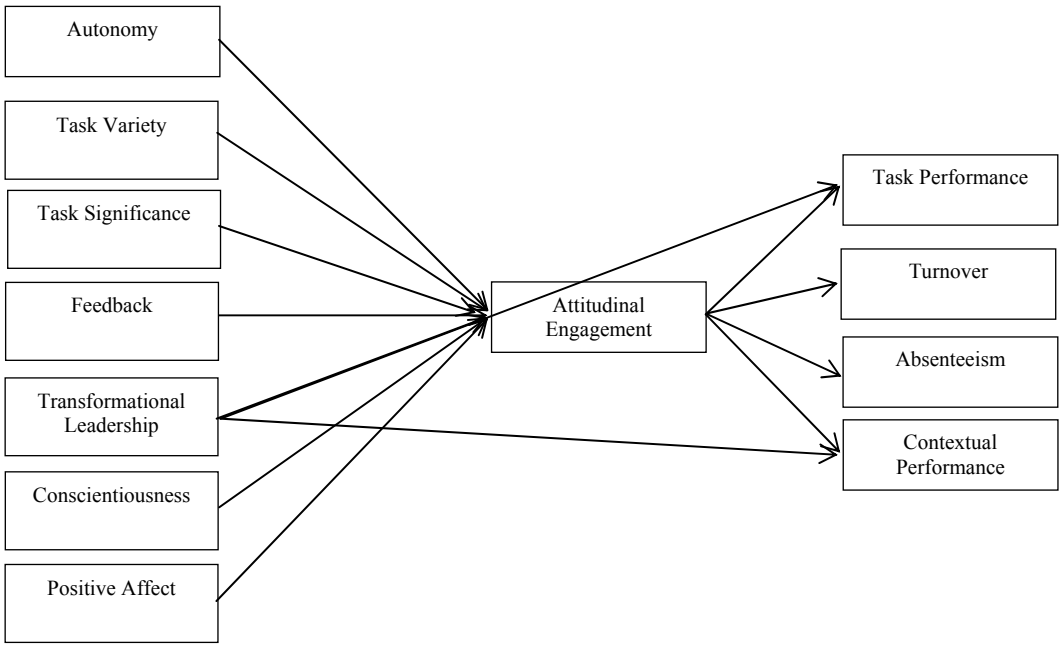

Figure 6: Christian et al. (2011) model with absenteeism and turnover. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance, absenteeism, and turnover were allowed to intercorrelate.

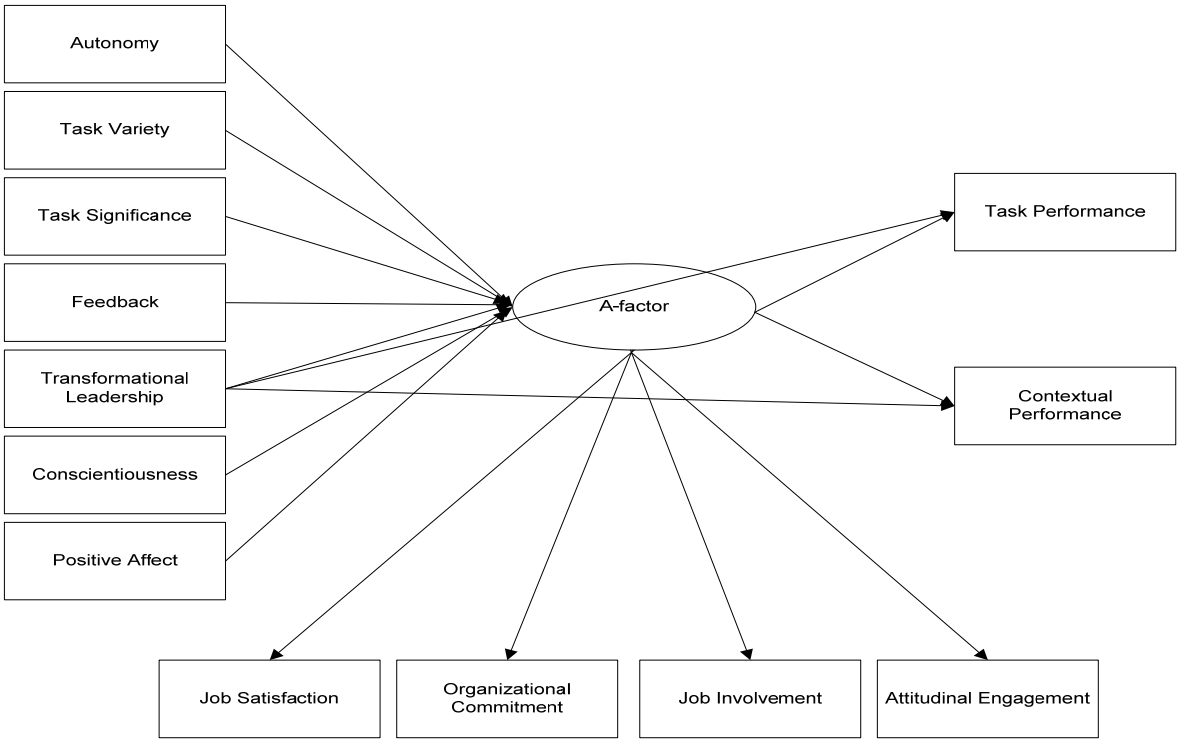

Figure 7: Christian et al. (2011) model with the *A-factor*. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance were allowed to intercorrelate.

Attitude-Engagement Model

Given the strong overlap between job attitudes and engagement, it is reasonable to expect engagement to predict work behavior nearly as well as job attitudes. Recent theoretical work on the relationship between attitudes and work behavior by Harrison et al. (2006; see also Newman et al., 2010) proposed the attitude-engagement model (p. 320), a model in which the *A-factor* (i.e., broad attitudes) predicts individual effectiveness (i.e., broad work behavior), which Newman and Harrison (2008) labeled behavioral engagement. At this point, it is important to note that the most common conceptualization of employee engagement has been as an attitudinal variable, referred to throughout this manuscript as *attitudinal engagement*, which is similar to job attitudes, as previously discussed. However, there has been a second approach to the

conceptualization of engagement that was proposed by Newman and Harrison (2008; see also, Harrison et al., 2006) and later updated by Newman, Joseph, and Hulin (2010), which defines engagement as *behavioral engagement*. These two approaches are similar to the two ways in which employee engagement is commonly defined; some conceptualizations of engagement appear to be attitudinal in nature and therefore fall under the category of *attitudinal* engagement, while other definitions of engagement appear largely behavioral in nature (see Macey & Schneider, 2008), and thus, should be considered a separate construct. The behaviorally-focused approaches to engagement were labeled by Newman and Harrison (2008) as "*behavioral engagement"* and defined as "the behavioral provision of personal resources --- time and energy---into one's work role" (Newman & Harrison, 2008, p. 34). This definition views engagement as a broad range of valued work behaviors (also called *individual effectiveness*) and thus differs from previous approaches to engagement in which engagement is defined as a state attitudinal construct. These authors operationalized behavioral engagement as *broadly defined work behavior,* or a latent factor representing the shared variance among task performance, contextual performance, and withdrawal behaviors. Meta-analytic data supported the existence of behavioral engagement as a latent construct representing *broadly-defined work behaviors* (i.e., task performance, contextual performance, and withdrawal). In summary, attitudinal engagement represents an attitudinal construct that is composed of absorption/attachment/enthusiasm towards the work role, while behavioral engagement represents broadly-defined work behaviors, including task performance, contextual performance, and withdrawal behaviors. (It should be noted that the use of the term "employee engagement" often refers to attitudinal engagement, and in the current paper, I use the terms interchangeably.) The current paper seeks to estimate the

predictive validity of attitudinal engagement by not only examining how strongly attitudinal engagement predicts *specific* work behaviors (i.e., task performance, contextual performance, lateness, absenteeism, and turnover; Christian's original model, Figure 5) but also how well attitudinal engagement predicts *broad* work behaviors, or behavioral engagement, which leads me to propose the following hypothesis.

Meta-analytic evidence suggests attitudes are a robust predictor of behavioral engagement, or broadly-defined work behaviors ($\Gamma = .59$; see Figure 8). Results from Harrison et al. (2006) empirically support the idea of the compatibility principle, which suggests attitudes are the most robust predictors of behaviors when they are both assessed at the same level of generality (i.e., *broad* attitudes predict *broad* behaviors, in this case; Ajzen & Fishbein, 1977). Therefore, I expect engagement to be a robust predictor of behavioral engagement as previous theory (Newman & Harrison, 2008) and previous research (Christian et al., 2011; Newman et al., 2010) has found strong relationships between these broad job attitudes and attitudinal engagement.

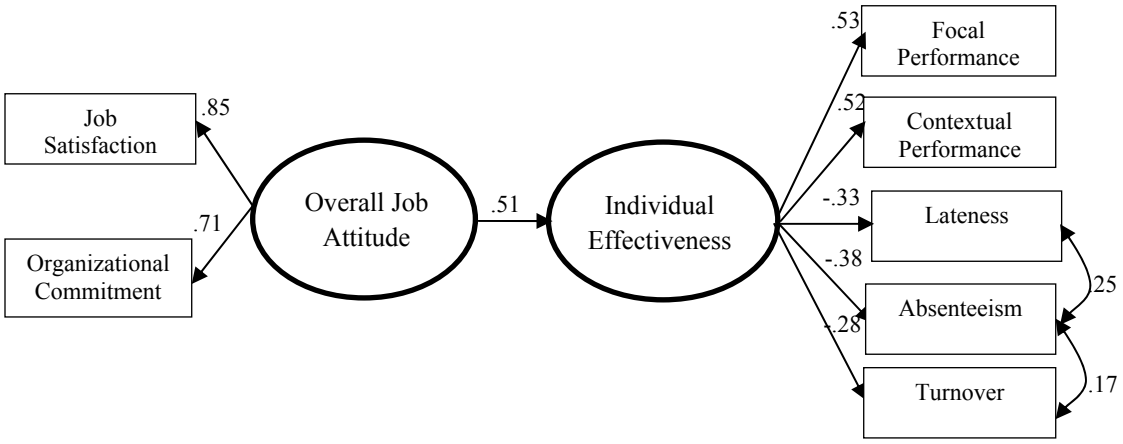

Figure 8: Attitude-Engagement Model (Harrison et al., 2006); harmonic mean $N = 3{,}120$. Note: path coefficients are standardized estimates.

Proposed Theoretical Models

A-factor Behavioral Engagement Model

Newman, Joseph, and Hulin (2010) found that attitudinal engagement fit best in a model that included it as a sub-facet of the *A-factor* rather than a separate construct. In addition to this, Newman and Harrison (2006) found that individual effectiveness, which they later termed *behavioral engagement* (Harrison & Newman, 2008) was more highly correlated with general job attitudes. This leads me to propose my next model which has attitudinal engagement as a sub-facet of the *A-factor* along with job satisfaction, job involvement, and organizational commitment. The *A-factor* in turn predicts behavioral engagement which has sub-factors of task performance, contextual performance, and withdrawal behaviors, which include absenteeism and turnover (see Figure 9). It is important to estimate this model because previous estimates of the relationship between broad attitudes and broad behaviors (i.e., the attitude-engagement model) may have underestimated the predictive power of the *A-factor* because attitudinal engagement was not included in the model. Once engagement is included, the *A-factor* may be an even stronger predictor of behavioral engagement.

Hypothesis 9: The A-factor (including attitudinal engagement) is positively related to behavioral engagement.

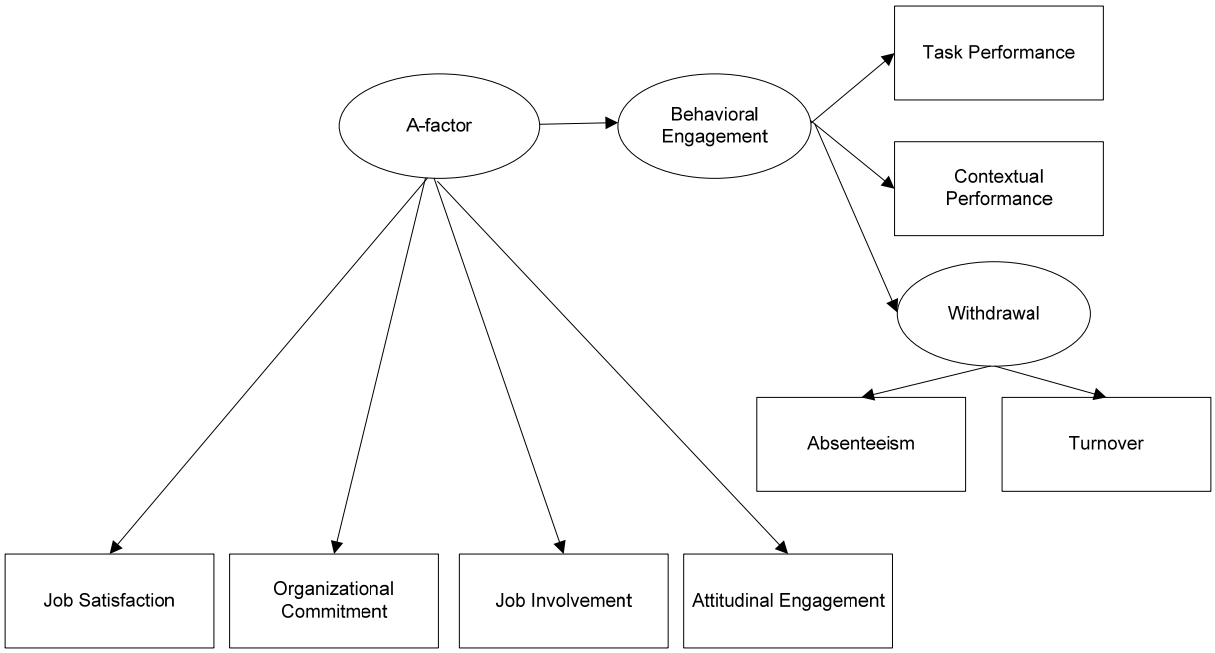

Figure 9: *A-factor* (with attitudinal engagement)-Behavioral Engagement Model.

A-factor Behavioral Engagement Model without Attitudinal Engagement

Although Newman et al. (2010) examined attitudinal engagement as a sub-facet of the *A-factor,* it is also important to re-examine a model without attitudinal engagement, where the *A-factor* consists of the sub-factors; job satisfaction, job involvement, and organizational commitment to compare model fit and see what, if anything, attitudinal engagement adds to the prediction of behavioral engagement (see Figure 10) using updated meta-analytic correlations.

Hypothesis 10: The A-factor (without attitudinal engagement) is positively related to behavioral engagement.

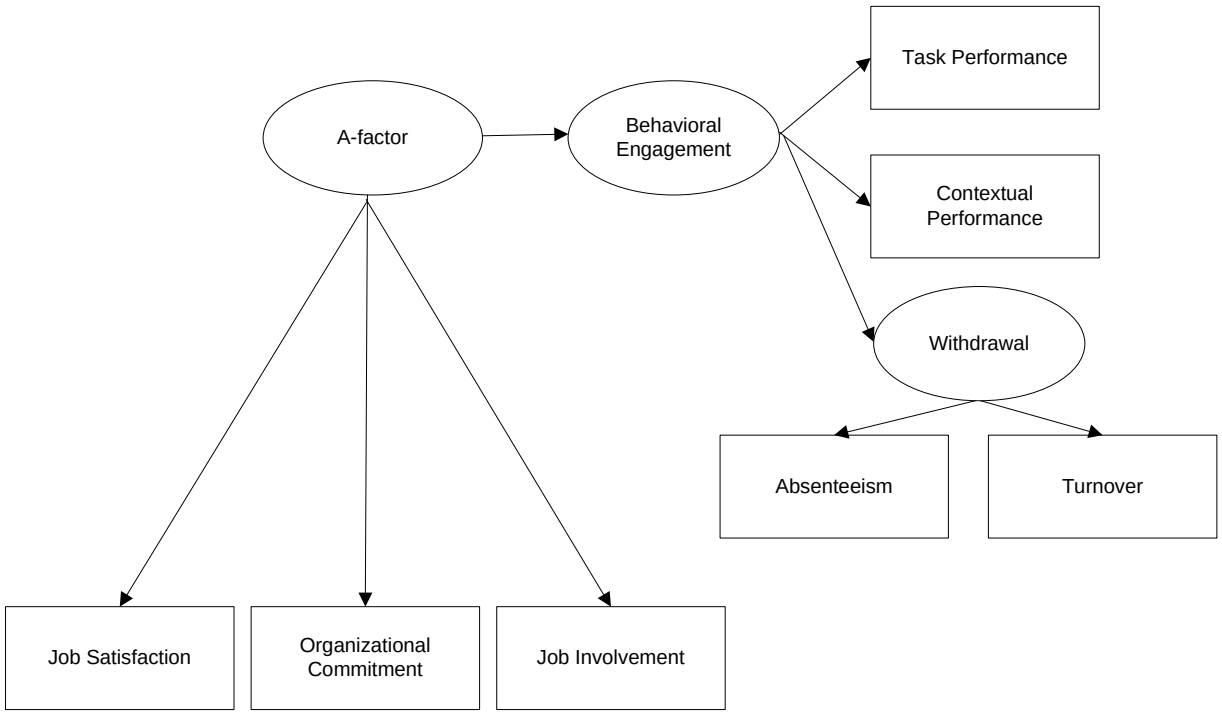

Figure 10: *A-factor* (without attitudinal engagement)-Behavioral Engagement Model

Attitudinal Engagement and Behavioral Engagement

To this point, attitudinal engagement has been included in the models as a sub-facet of the *A-factor,* however, previous research has found that attitudinal engagement offers strong predictive validity to a number of work behaviors by itself. For this reason, it is important to test a model that includes attitudinal engagement as a direct predictor of behavioral engagement to examine how well attitudinal engagement predicts behavioral engagement (i.e., broad work behaviors). For this reason, I also propose Figure 11.

Hypothesis 11: Attitudinal engagement is positively related to behavioral engagement.

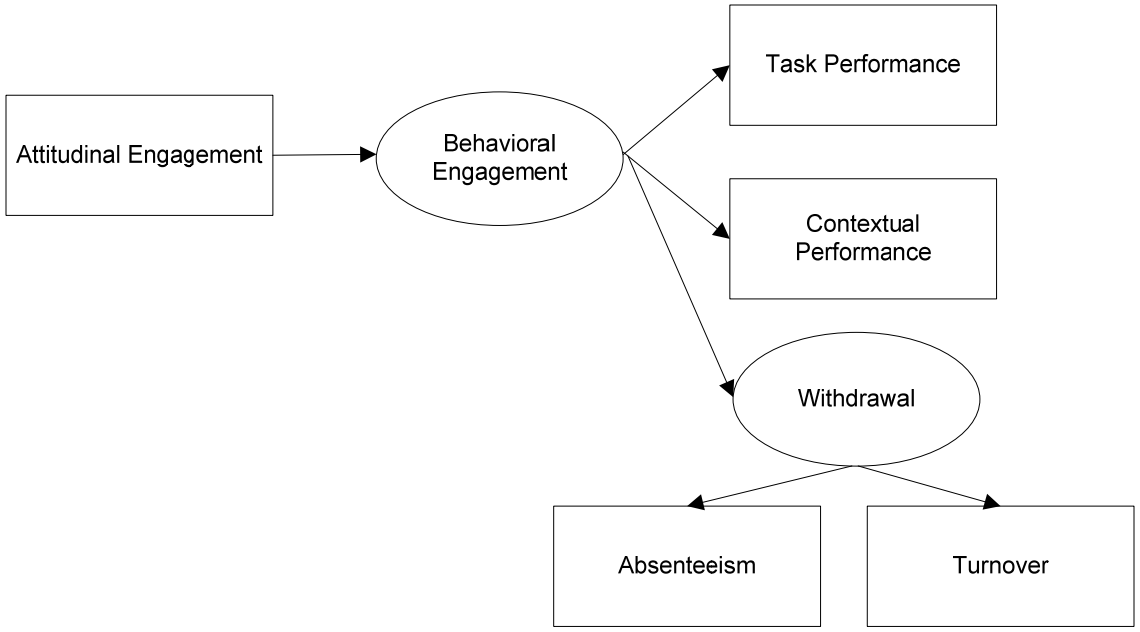

Figure 11: Attitudinal Engagement-Behavioral Engagement Model

Summary of Contributions

In the sections above, I made a number of hypotheses and proposed a number of models in an effort to understand employee engagement's relationship with traditional job attitudes and work-related behaviors. In the current paper, I meta-analytically examined these relationships to further understand what employee engagement has to offer the literature and the field above and beyond job attitudes. I first provided updated meta-analytic estimates in an effort to understand the relationship between engagement and task performance/contextual performance. I also calculated several original meta-analyses in order to understand the relationship between engagement and absenteeism/turnover. Using these meta-analytic estimates, I examined the incremental validity that engagement adds to task performance, contextual performance, absenteeism, and turnover beyond the traditional job attitudes of job satisfaction, job involvement, and organizational commitment. I also re-tested Christian et al.'s (2011) engagement model with these updated meta-analytic estimates and compared this to a model in which engagement is included as a sub-facet of the *A-factor*. Finally, I examined several attitude-behaviors models in an effort to better understand what *attitudinal engagement* has to offer the literature and the field as a whole. It is important to examine these for several reasons; (a) the *A-factor* has been never been examined while including attitudinal engagement as a sub-factor, which may increase the predictive validity it offers to behavioral engagement, (b) the *A-factor* – behavioral engagement model has not been estimated with updated meta-analytic coefficients and (c) attitudinal engagement has yet to be examined as a predictor of behavioral engagement, which could prove to be a reliable proxy for the *A-factor*.

METHODOLOGY

In order to test the attitudinal engagement-behavioral engagement model, I constructed a correlation matrix based on meta-analytic estimates (as recommended by Viswesvaran & Ones, 1995). The estimates included 95 published meta-analytic correlations and 12 original meta-analyses (see Table 2).

Published Meta-Analyses

The existing meta-analytic estimates included in the meta-matrix (see Table 2) were published in a variety of journals, including *Personnel Psychology, Psychological Bulletin, Journal of Organizational Behavior, Journal of Applied Psychology, Journal of Vocational Behavior,* and *Journal of Management.* All estimates were corrected for unreliability in the predictor and the criterion. In cases where more than one meta-analytic estimate was available, the meta-analysis with the largest sample size was included. For the relationship between job satisfaction and autonomy, task variety, task significance, and feedback there were two meta-analyses available: Bowling and Hammond (2008) and Fried and Ferris (1987). I chose to include estimates from Fried and Ferris (1987) because this meta-analysis exhibited a larger *k* (Fried & Ferris *k:* 16-22; Bowling & Hammond *k*: 3-13), larger *N*'s (Fried & Ferris *N*: 7,861-18,561; Bowling & Hammond *N:* 725-2,984), and because Fried and Ferris (1987) included multiple job satisfaction surveys (i.e., Brayfield & Rothe, 1951; Hackman & Lawler, 1971; Hackman & Oldham, 1974; Quinn & Sheppard, 1974) while the Bowling and Hammond (2008) meta-analysis only included job satisfaction data from the Michigan Organizational Assessment Questionnaire (MOAQ; Cammann et al., 1979). For the relationship between job satisfaction

and positive affect, two meta-analytic estimates were available: Connolly and Viswesvaran (2000) and Thoresen et al. (2003). Because Thoresen et al. (2003) provided a larger *k* (Thoresen et al. *k* : 79; Connolly and Viswesvaran *k:* 15) and a larger *N* (Thoresen et al. *N* : 23,419; Connolly and Viswesvaran *N*: 3,326), the Thoresen et al. (2003) estimate was chosen for the current study. For the relationship between job satisfaction and conscientiousness, two meta-analyses were available: Judge et al. (2002) and Podsakoff et al. (1996); however Judge et al. (2002) was more recent, had a larger *k* (Judge et al. *k:* 79; Podsakoff et al. *k:* 7) and had a larger *N* (Judge et al. *N:* 21,719; Podsakoff et al. *N:* 2,456) so the more recent and more robust estimate of Judge et al. (2002) was chosen for inclusion in the current study. For the relationship between job satisfaction and organizational commitment, four meta-analytic estimates were available: Bowling and Hammond (2008), Meyer et al. (2002), Mathieu and Zajac (1990), and Cooper-Hakim and Viswesvaran (2005). However, Cooper-Hakim and Viswesvaran was most recent, had a larger *k* (Cooper-Hakim and Viswesvaran *k:* 140 ; Bowling and Hammond *k:* 16; Meyer et al. *k:* 69; Mathieu and Zajac *k:* 43), and had a larger *N* (Cooper-Hakim and Viswesvaran *N:* 63,529; Bowling and Hammond *N:* 8,061; Meyer et al. *N:* 23,656; Mathieu and Zajac *N:* 15,531). Also, as mentioned above, Bowling and Hammond (2008) only used the MOAQ, so the newest and most robust estimate with the largest sample size (i.e., Cooper-Hakim & Viswesvaran, 2005) was used [Note: Harrison et al. (2006) provided an estimate that was a combination of Meyer et al. (2002) and Mathieu & Zajac (1990), however this estimate contained a smaller *k/N* than Cooper-Hakim & Viswesvaran (2005). For the relationship between job satisfaction and job involvement, two meta-analyses were available: Meyer et al. (2002), and Cooper-Hakim and Viswesvaran (2005), Cooper-Hakim and Viswesvaran had a

larger *k* (Cooper-Hakim & Viswesvaran *k:* 462; Meyer et al. *k:* 69) and a larger *N* (Cooper-Hakim & Viswesvaran *N:* 133,062; Meyer et al. *N:* 23,656) and was therefore chosen for the current study. For the relationship between absenteeism and autonomy, Loher (1985) had a larger *N* but did not provide enough data about the number of studies or the specific samples sizes for each relationship, so Fried (1987) was used. For the relationship between employee engagement and job satisfaction there were two meta-analyses available: Christian et al. (2011), and Newman et al. (2010). Newman et al. (2010) had slightly fewer studies (Christian et al. *k:* 20; Newman et al. *k:* 12) and a smaller *N* (Christian et al. *N:* 9725; Newman et al. *N:* 5,300). However, Newman et al. (2010) was able to isolate the studies that used just the UWES which was the focus of this study I chose to use Newman et al.'s (2010) correlation. However, both correlations were almost identical (Christian et al.; r =.53; Newman et al.; r = .54). So I do not expect any large differences strictly from this coefficient. For the relationship between employee engagement and job involvement there were two meta-analyses available: Christian et al. (2011) and Newman et al. (2010). Newman et al. (2010) had a more studies (Christian et al. *k:* 5; Newman et al. *k*: 6) and a larger sample size (Christian et al. *N:* 1,175; Newman et al. *N*: 1,331) while also including only UWES samples for employee engagement. For these reasons I chose to use the correlation from the Newman et al. (2010) study. For the relationship between employee engagement and organizational commitment there were two meta-analyses available: Christian et al. (2011) and Newman et al. (2010). Newman et al. (2010) had the same number of studies (Christian et al. *k:* 14; Newman et al. *k*: 14) and a larger sample size (Christian et al. *N:* 7,569; Newman et al. *N*: 9,522) while also including only UWES samples for employee engagement. For these reasons I chose to use the correlation from the Newman et al. (2010) study.

Table 2:

Meta-Analytic Correlation Matrix of Employee Engagement

	1	2	3	4	5	6	7	8
1. Engagement	-							
2. Autonomy	.39[a]	-						
	43/24,499							
3. Task Variety	.53[a]	.46[b]	-					
	9/9,211	21/8,877						
4. Task Significance	.51[a]	.50[b]	.52[b]	-				
	4/5,870	100/41,837	8/2,885					
5. Feedback	.33[a]	.53[b]	.40[b]	.56[b]	-			
	10/7,179	110/44,390	15/5,765	80/37,082				
6. Transformational	.27[a]	.37[a]	.37[a]	.29[a]	.37[a]	-		
Leadership	4/777	3/868	3/868	4/2,407	4/2,407			
7. Positive Affect	.43[a]	.13[a]	.10[a]	.16[a]	.14[a]	.06[a]	-	
	14/6,715	3/470	3/511	2/847	5/1,341	3/1,192		
8.Conscientiousness	.42[a]	.16[a]	.16[a]	.15[a]	.14[a]	.03[a]	.00[a]	-
	12/5,821	3/624	2/348	7/1,151	2/179	3/1,148	632/683,001	
9. Task Performance	.28[†]	.23[b]	.23[b]	.23[b]	.20[b]	.20[a]	.07[m]	.31[l]
	9/1,593	42/7,886	2/918	20/3,503	26/52,541	4/1,893	75/11,940	185/33,312
10. Contextual	.30[†]	.35[a]	.21[a]	.20[a]	.18[a]	.29[i]	.23[n]	.30[n]
Performance	6/1,303	3/479	8/1,948	8/1,948	7/1,909	6/2,562	5/970	12/1,963
11. Job Satisfaction	.54[x]	.48[c]	.45[c]	.35[c]	.43[c]	.58[j]	.34[o]	.26[q]
	12/5,300	20/7,861	22/18,035	16/17,887	20/18,561	18/5,279	79/23,419	79/21,719
12. Organizational	.54[x]	.11[d]	.21[g]	.43[†]	.41[h]	.46[k]	.35[o]	.22[r]
Commitment	14/9,522	6/1,506	6/921	6/1,725	4/1,401	4/2,361	15/4,873	7/2,456
13. Job Involvement	.61[x]	.23[e]	.37[e]	.34[e]	.28[e]	.11[†]	.31[†]	.25[†]
	6/1,331	18/5,442	15/4,871	8/3,515	13/4,289	3/1,151	6/1,278	8/2,079
14. Absenteeism	-.16[†]	-.29[c]	-.24[c]	.14[c]	-.19[c]	-.10[†]	-.17[p]	-.06[s]
	8/2,036	3/961	3/961	3/961	3/961	4/3,932	7/1,640	15/7,021
15. Turnover	-.36[gg]	-.15[f]	-.32[f]	.02[†]	-.09[f]	-.28[†]	.05[†]	-.20[t]
	1/170	3/1,319	3/1,017	2/311	3/1,319	4/626	3/434	17/1,631

	9	10	11	12	13	14	15
9. Task Performance	-						
10. Contextual Performance	.32[u] 17/4,448	-					
11. Job Satisfaction	.30[v] 312/54,471	.24[aa] 72/7,100	-				
12. Organizationl Commitment	.18[w] 87/20,973	.20[aa] 54/5,133	.60[bb] 112/39,187	-			
13. Job Involvement	.10[x] 25/5,908	.24[x] 6/2,828	.53[e] 20/6,124	.52[dd] 142/47,856	-		
14. Absenteeism	-.29[y] 49/15,764	-.16[u] 15/4,037	-.17[cc] 25/4,741	-.16[g] 30/5,748	-.22[†] 13/3,060	-	
15. Turnover	-.15[z] 72/25,234	-.14[u] 12/3,917	-.19[z] 67/24,566	-.22[z] 66/26,296	-.16[dd] 26/8,713	.30[ff] 33/5,316	-

Note. Each cell contains the correlation corrected for attenuation in the predictor and criterion, followed by *k* number of effect sizes and *N* sample size. [a] Christian et al. (2011). [b] Humphrey et al. (2007). [c] Fried & Ferris (1987). [d] Cohen (1992). [e] Brown (1996). [f] Eby et al. (1999). [g] Mathieu & Zajac (1990). [i] Organ & Ryan (1995). [j] Judge & Piccolo (2004). [k] Meyer et al. (2002). [l] Barrick et al. (2001) estimated true correlation at the construct level was used. [m] Salgado (2003). [n] Borman et al. (2001). [o] Thoresen et al. (2003). [p] Ng & Sorensen (2009). [q] Judge et al. (2002). [r] Podsakoff et al. (1996). [s] Swider & Zimmerman (2010). [t] Zimmerman (2008). [u] Podsakoff et al. (2009). [v] Judge et al. (2002). [w] Riketta (2002). [x] Newman, Joseph, & Hulin (2010). [y] Bycio (1992). [z] Griffeth et al. (2000). [aa] Lepine et al. (2002). [bb] Harrison et al. (2006). [cc] Hackett (1989). [dd] Cooper-Hakim & Viswesvaran (2005). [ff] Mitra et al. (1992). [gg] Peterson et al. (2011).
[†] calculated meta-analytic effect sizes.

Original Meta-Analyses

For the relationships in the correlation matrix (i.e., Table 2) where a meta-analysis could not be located, an original meta-analysis was conducted. This was the case for 12 relationships, including: engagement and task performance, engagement and contextual performance, engagement and absenteeism, organizational commitment and task significance, job involvement and transformational leadership, job involvement and positive affect, job involvement and conscientiousness, absenteeism and transformational leadership, turnover and task significance, turnover and transformational leadership, and turnover and positive affect, and absenteeism and job involvement (see Table 3). To identify studies for inclusion, I conducted searches of the following databases: American Psychological Association's PsycINFO (1887-2012), Google Scholar, and Dissertation Abstracts International (1861-2012) for the following keywords (as well as several combinations and variations of these words): *organizational commitment, task significance, job involvement, transformational leadership, positive affect, conscientiousness, absenteeism, task performance, employee engagement,* and *turnover.* Studies used in meta-analyses by Christian et al. (2011), Fried (1987), and Mathieu and Zajac (1990) were also obtained from their references. Several authors were also contacted for unpublished work that had appeared in conference presentations. This search identified 115 studies that were examined for specific inclusion criteria. A paper was not included if the effect size operationalized engagement with a measure of *job* engagement because prior research has indicated that this construct is distinct from work engagement (Rich, 2006). Other studies were excluded if they did not include enough information to calculate an effect size or if they did not provide the sample size.

Data Coding

Studies that passed the inclusion criteria were coded on several attributes. Each study was coded for an observed correlation, the measure used to assess each of the variables, the reliability of the measures, the sample size of the study, and participant characteristics. All measures of task performance and contextual performance were coded for method used (self-report, other-report, or objective). However, only those studies that provided other/supervisor ratings of performance were included as part of the analyses.

Analyses

After the original studies were coded, I used the Hunter and Schmidt (2004) method to calculate meta-analytic estimates of the 12 effect sizes. For the purposes of this study, an artifact distribution was used, and the mean reliability estimates used in the artifact distributions are presented in Table 3.

In order to analyze the incremental validity of engagement when predicting task performance and contextual performance, I used the corrected meta-analytic correlation matrix presented in Table 2. In Step 1 I added the *A-factor* (job satisfaction, organizational commitment, job involvement) into the hierarchical regression, and in Step 2, I added employee engagement in order to examine the incremental validity of employee engagement above job attitudes. I also analyzed the incremental validity of employee engagement on withdrawal behaviors (absenteeism, and turnover) which were not included in the original analysis by Christian et al. (2011). To do this I utilized the same hierarchical regression method as above.

In addition to analyzing the incremental validity engagement added above and beyond the *A-factor* with the predictors I also ran a hierarchical regression which involved only steps 2 and 3 from above, where the predictors were left out of the regression equation.

In order to test the fit of the models proposed in Figures 5, 6, 7, 9, 10, and 11 I used the meta-matrix in Table 1. The sample size for these models was based on the harmonic mean *N*.

Table 3:

Meta-Analytic Results for Engagement, Job Attitudes, Absenteeism, and Turnover

	k	N	*r*	*P*	SD*ρ*	95% CI		80% CR		% variance
						LL	*UL*	*LL*	*UL*	
Engagement										
Task Performance	9	1,593	.24	.28	.01	.20	.35	.25	.31	48
Contextual Performance	6	1,303	.27	.30	.00	.25	.35	.28	.32	100
Absenteeism	8	2,036	-.12	-.16	.07	-.22	-.10	-.22	-.11	82
Organizational Commitment										
Task Significance	6	1,725	.36	.43	.01	.35	.52	.35	.51	31
Job Involvement										
Transformational Leadership	3	1,151	.10	.11	.00	.06	.16	.11	.11	100
Absenteeism	13	3,060	-.16	-.22	.01	-.11	-.21	-.10	-.34	45
Positive Affect	6	1,278	.26	.31	.08	.23	.38	.24	.37	73
Conscientiousness	8	2,079	.21	.25	.13	.16	.33	.14	.35	24
Absenteeism										
Transformational Leadership	4	3,932	-.09	-.10	.05	-.15	-.05	-.14	-.06	50
Turnover										
Task Significance	2	311	.03	.03	.09	-.12	.18	-.04	.10	84
Transformational Leadership	4	*626*	-.25	-.28	.16	-.44	-.12	-.41	-.15	23
Positive Affect	3	434	.05	.05	.00	.03	.07	.05	.05	100

Note. k = number of effect sizes in the meta analysis; *N* = total sample size in the meta-analysis; *r* = sample-size weighted mean correlation; ρ = correlation corrected for attenuation; *SDρ* = standard deviation of corrected correlation; CI = confidence interval; CR = Credibility Interval; *LL* = lower limit; *UL* = upper limit; % variance = percent of variance accounted for by sampling error.

Note. A number of the studies used to calculate the meta-analytic effect sizes between Engagement and Task Performance (*k* = 4) and Engagement and Absenteeism (*k* =8) were original data collections from field studies.

RESULTS

Results of the meta-analyses are presented in tables 2 and 3.

Attitudinal Engagement and Work Behaviors

The first thing I wanted to test was the individual relationships between attitudinal engagement and each of the individual work behaviors. Engagement was strongly related to task performance (ρ = .28; 95% CI = .20, 35). A confidence interval that excludes zero can be interpreted as an estimate that is significantly greater than zero and for this reason this estimate confirms Hypothesis 1. Engagement was also strongly related to contextual performance (ρ = .30, 95% CI = .25, .35), confirming Hypothesis 2. However, both of these estimates are smaller than what has been estimated in previous research (see Christian et al., 2011 where the corrected correlation for task performance was found to be (ρ = .39, 95% CI = .30, .48) and the rho for contextual performance was (ρ = .43, 95% CI = .34, .51). It is also important to point out that both of my rho's fall out of the 95% CI provided by Christian et al. (2011). This difference was most likely a result of sampling error and the liberal corrections Christian et al. (2011) used for the reliability of the criterion.

The relationship between engagement and withdrawal behaviors was also calculated. Engagement was strongly negatively correlated with absenteeism (ρ = -.16, 95% CI = -.22, -.10), confirming Hypothesis 3, and engagement was also strongly negatively correlated with turnover (r = -.36, p < .05), confirming Hypothesis 4. When it came to the relationship between engagement and turnover I was only able to locate one study that examined the relationship and because of this reason a rho was not calculated and we went with the standard correlation from

the original study. Results of these hypotheses suggest that engagement is related to important specific work-related behaviors.

Incremental Validity of Attitudinal Engagement

Table 5 provides estimates of the incremental validity attitudinal engagement provides over job attitudes for each of the four behavioral outcome variables. While attitudinal engagement does provide significant incremental validity above and beyond job attitudes when predicting task performance, contextual performance, and turnover, confirming Hypotheses 5 (task performance: $\Delta R^2 = .037$, $p < .05$), 6 (contextual performance: $\Delta R^2 = .025$, $p < .05$), and 8 (turnover: $\Delta R^2 = .083$, $p < .05$), the results did not find significant incremental validity when predicting absenteeism, failing to confirm Hypothesis 7 (absenteeism: $\Delta R^2 = .000$) suggesting that engagement does add unique predictive validity above each of the behavioral outcomes except absenteeism. The estimates for the incremental validity of engagement predicting task and contextual performance are much smaller than what Christian et al. (2011) found, which were $\Delta R^2 = .19$ and $\Delta R^2 = .16$ respectively, likely because of sampling error and the over correction of the estimates for task performance and contextual performance.

Christian et al.'s Model of Engagement vs. the *A-factor*

The first model I proposed was the re-analysis of the original Christian model with updated validity coefficients (Figure 5). The purpose of re-analyzing this model was to examine the criterion-related validity of engagement in predicting task performance and contextual performance using updated meta-analytic estimates and to compare this model to a model in which the *A-factor* predicted task and contextual performance in order to investigate which

predicts specific work behaviors more strongly: engagement or the *A-factor*. Results from a re-estimate of the Christian model find good fit root mean square error of approximation (RMSEA) = .10, comparative fit index (CFI) = .95, Tucker-Lewis Index (TLI; nonnormed fit index) = .90, and standardized root mean square residual (SRMR) = .09). The standardized path coefficients between engagement and task performance and contextual performance were: task performance: .23 and contextual performance .23. When we compare this to the original Christian et al. (2011) estimate, we find the model with updated estimates had better fit than Christian et al.'s original model (CFI) = .93 (RMSR) = .08. In addition, the standardized path coefficients between engagement and task performance and contextual performance were; task performance: .36 and contextual performance .38, which were substantially larger than what was found in our re-estimate of the model.

In contrast, results indicated that the revised Christian et al. (2011) model that substituted the *A-factor* for engagement as a predictor of task and contextual performance has poor fit (Figure 14; (RMSEA) = .17, (CFI) = .87, (TLI; nonnormed fit index) = .81, and (SRMR) = .09), likely due to the job characteristics variables' lack of estimated relationship with indicators of job attitudes (Hackman & Oldham, 1976).

In addition to a re-analysis of the original Christian model (2011) and a model that included the *A-factor* as the mediator I wanted to examine a model that included the outcome variables of absenteeism and turnover as part of the original Christian et al. (2011) model. The model fit was slightly reduced (Figure 13; (RMSEA) = .15, (CFI) = .86, (TLI; nonnormed fit index) = .75, and (SRMR) = .10) as compared to the original Christian model suggesting the added complexity did not increase the model fit.

Attitudes Models

The main purpose of this study is not to examine the mediated Christian et al. (2011) model, but to answer the question of whether attitudinal engagement is both different and a better predictor of organizational outcomes than traditional job attitudes. Therefore the remainder of the models I tested did not include the predictors of autonomy, task variety, task significance, feedback, transformational leadership, conscientiousness, and positive affect, but instead examined the relationship(s) between the *A-factor* or attitudinal engagement and behavioral outcomes.

Table 4:

Incremental Validity of Engagement above Job Attitudes on Work Behaviors

	Task Performance		Contextual Performance		Absenteeism		Turnover	
	I	II	I	II	I	II	I	II
Variable								
Attitudes								
Job Satisfaction	**.33**	**.28**	**.14**	**.09**	**-.06**	**-.06**	**-.08**	.00
Org. Commitment	.03	-.03	**.04**	-.00	-.03	-.03	**-.15**	**-.07**
Job Involvement	**-.09**	**-.19**	**.15**	**.06**	**-.17**	**-.17**	-.04	**.11**
Engagement		**.26**		**.21**		-.00		**-.39**
R^2	**.095**	**.132**	**.076**	**.101**	**.053**	.053	**.055**	**.138**
Adjusted R^2	**.095**	**.132**	**.076**	**.099**	**.052**	.052	**.053**	**.136**
Change in R^2		**.037**		**.025**		.000		**.083**

Note. Bold values are significant ($p < .05$); Standardized regression coefficients; Harmonic Mean for Task Performance Model I = 13483; Harmonic Mean for Task Performance Model II = 4981; Harmonic Mean for Contextual Performance Model I = 6674; Harmonic Mean for Contextual Performance Model II = 3844; Harmonic Mean for Absenteeism Model I = 6512; Harmonic Mean for Absenteeism Model II = 4260; Harmonic Mean for Turnover Model I = 14881; Harmonic Mean for Turnover Model II = 1385.

The *A-factor* with Attitudinal Engagement

Newman et al. (2010) found support for attitudinal engagement as a facet of the *A-factor* along with job satisfaction, organizational commitment, and job involvement. For this reason I examined a model in which the *A-factor* predicts behavioral engagement (see Figure 15). The fit statistics for the full model are: (RMSEA) = .10, (CFI) = .93, (TLI; nonnormed fit index) = .91, and (SRMR) = .05, suggesting good fit. This model confirms Hypothesis 9, supporting the idea that the *A-factor* predicts behavioral engagement (Γ = .62) quite strongly when it includes engagement as an indicator of the *A-factor*.

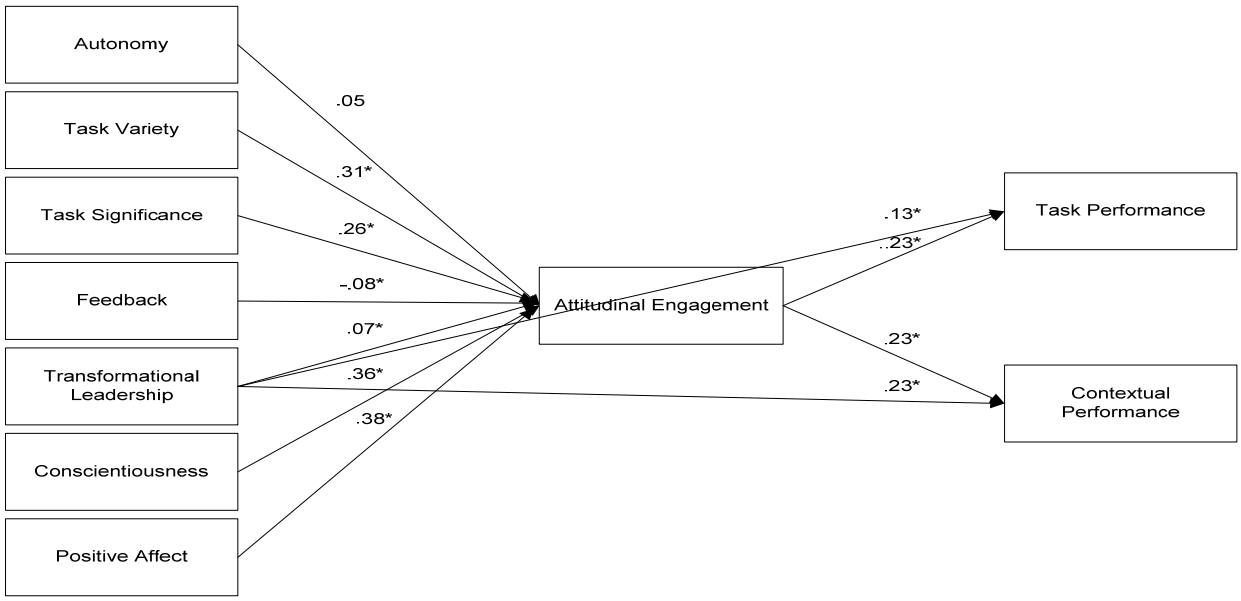

Figure 12: Christian et al. (2011) model. (RMSEA = .10; CFI = .95; TLI = .90; SRMR = .09; harmonic mean N = 1,109). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance were allowed to intercorrelate. *Note:* Asterisk denotes significant path coefficients.

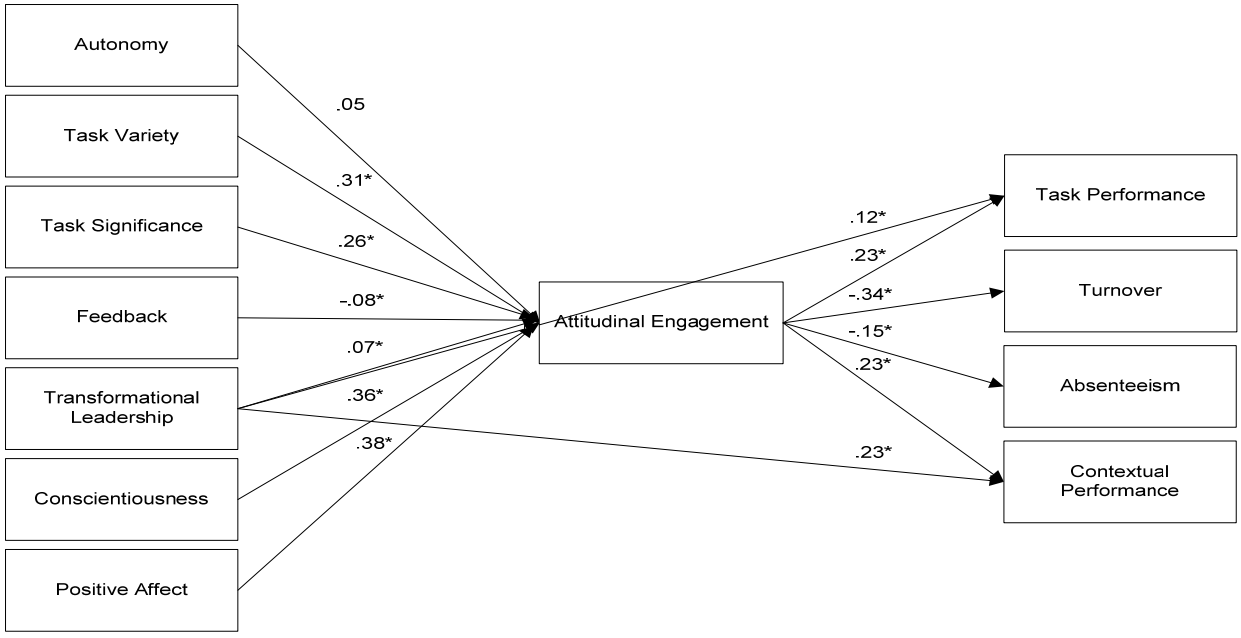

Figure 13: Christian et al. (2011) model with absenteeism and turnover. (RMSEA = .15; CFI = .86; TLI = .75; SRMR = .10; harmonic mean N = 1,156). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance, absenteeism, and turnover were allowed to intercorrelate. *Note:* Asterisk denotes significant path coefficients.

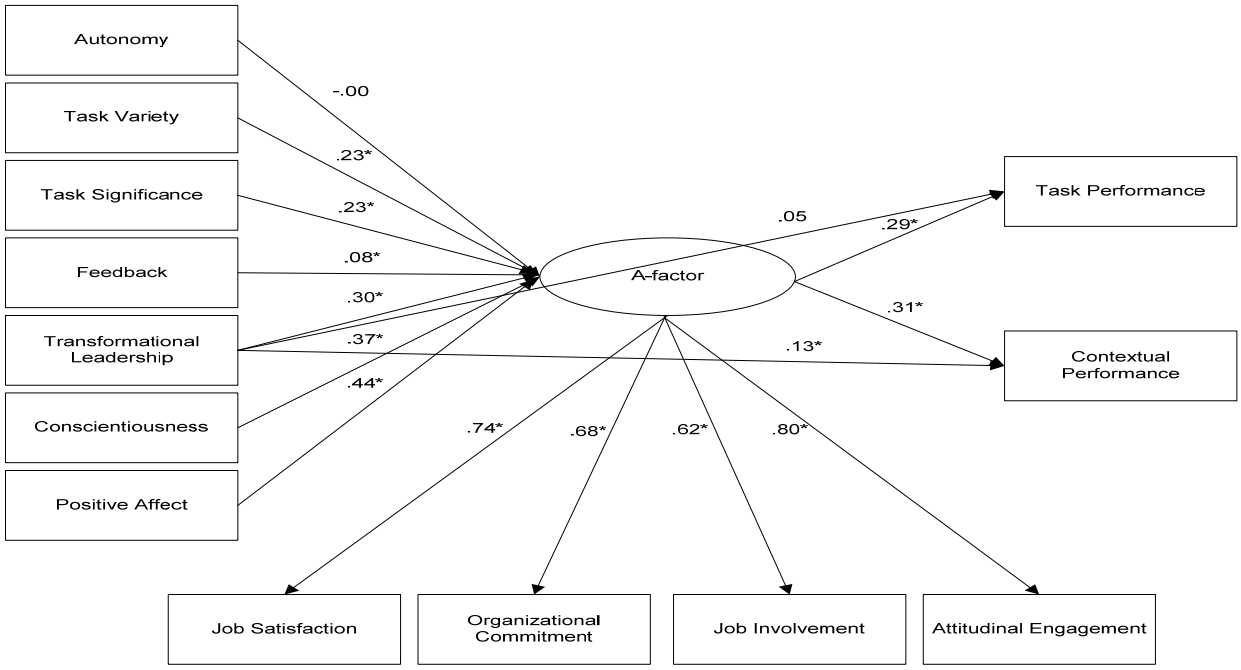

Figure 14: Christian et al. (2011) model including the *A-factor.* (RMSEA = .17; CFI = .86; TLI = .80; SRMR = .09; harmonic mean N = 1,783). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* all predictors were allowed to intercorrelate and the error terms of task and contextual performance were allowed to intercorrelate. *Note:* Asterisk denotes significant path coefficients.

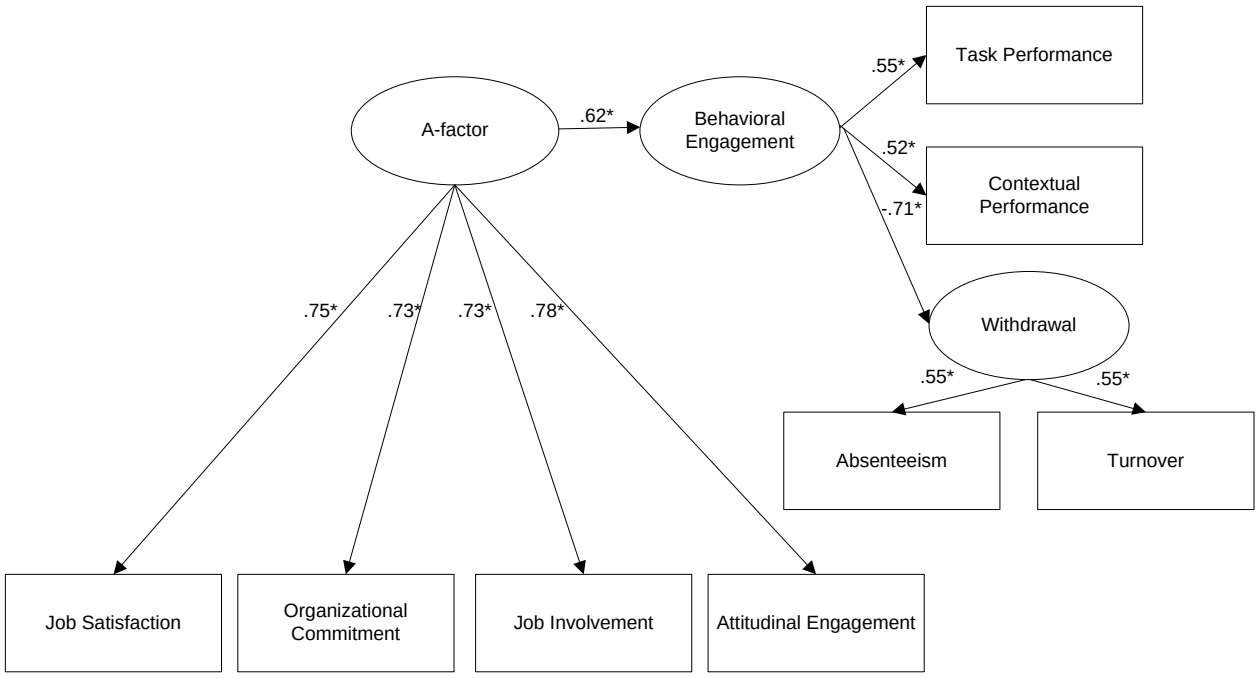

Figure 15: *A-factor* (with attitudinal engagement)-Behavioral Engagement Model. (RMSEA = .11; CFI = .93; TLI = .90; SRMR = .05; harmonic mean N = 2,400). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* Asterisk denotes significant path coefficients.

The *A-factor* without Attitudinal Engagement

While Newman et al. (2010) found support for attitudinal engagement as a sub-facet of the *A-factor,* it is important to examine the relationship between the *A-factor* and behavioral engagement without attitudinal engagement to see if attitudinal engagement is adding anything to the actual prediction of behavioral engagement. Figure 16 tested the relationship between the *A-factor* and behavioral engagement without attitudinal engagement as a sub-facet and found slightly better fit with a similar path coefficient between the *A-factor* and behavioral engagement. The fit statistics for the full model are: RMSEA = .086, CFI = .95, TLI; nonnormed fit index = .92, and SRMR = .04, suggesting good fit. This model confirms Hypothesis 10,

supporting the idea that the *A-factor* without attitudinal engagement is significantly predicts with behavioral engagement (Γ = .56) although the path coefficient is not as strong as when attitudinal engagement is included as a sub-facet of the *A-factor.*

These results suggest that attitudinal engagement may improve the strength of the path coefficient (.62 vs. .56). This taken with Newman et al.'s (2010) findings that attitudinal engagement has substantial overlap with the *A-factor* (Γ = .77) suggests that attitudinal engagement may help to amplify the relationship between the *A-factor* and *behavioral engagement.* However, the results, along with the fairly modest incremental validity, do not suggest that attitudinal engagement is a completely unique construct like many authors have proposed (Christian et al., 2011; Macey and Schneider, 2008).

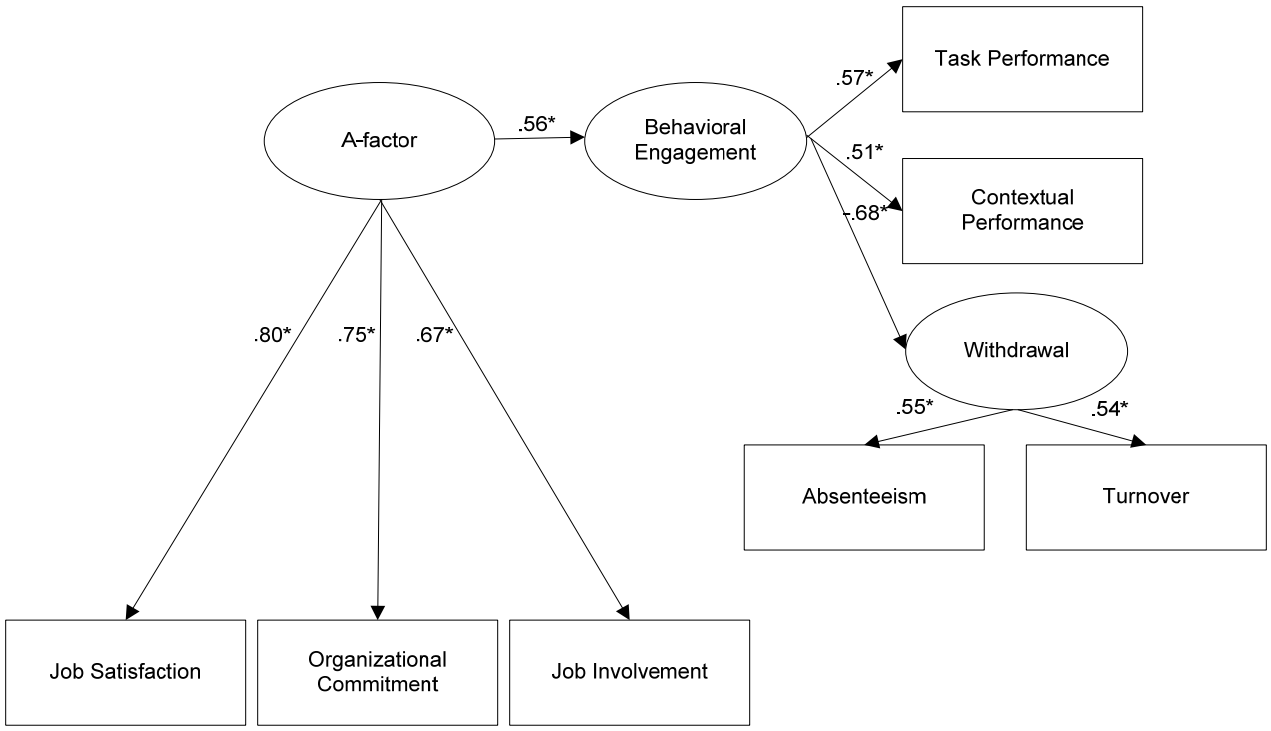

Figure 16: *A-factor* (without attitudinal engagement)-Behavioral Engagement Model. (RMSEA = .086; CFI = .95; TLI = .92; SRMR = .04; harmonic mean N = 6,866). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* Asterisk denotes significant path coefficients.

Attitudinal Engagement and Behavioral Engagement

However, it is possible that although attitudinal engagement is not a completely unique construct, it could act as a proxy variable, or a substitute for the *A-factor*, which would allow researchers to examine the *A-factor* using a more efficient measure as often times combinations of job attitude measures can be extremely robust. In order to examine this, I proposed Figure 11 which replaces the *A-factor* with attitudinal engagement as an observed predictor of behavioral engagement. Results suggest adequate model fit. The fit statistics for the full model are: (RMSEA) = .12, (CFI) = .89, (TLI; nonnormed fit index) = .77, and (SRMR) = .05 (see Figure

17), suggesting moderately poor fit. This model confirms Hypothesis 11, supporting the idea that attitudinal engagement significantly predicts behavioral engagement (r = .58).

The results of Figure's 15, 16, and 17 suggest that while attitudinal engagement may not be a completely unique construct it has substantial overlap with traditional job attitudes, may slightly enhance their combined predictive validity and may also act as an efficient proxy measure for the *A-factor* when long attitude measures are not feasible.

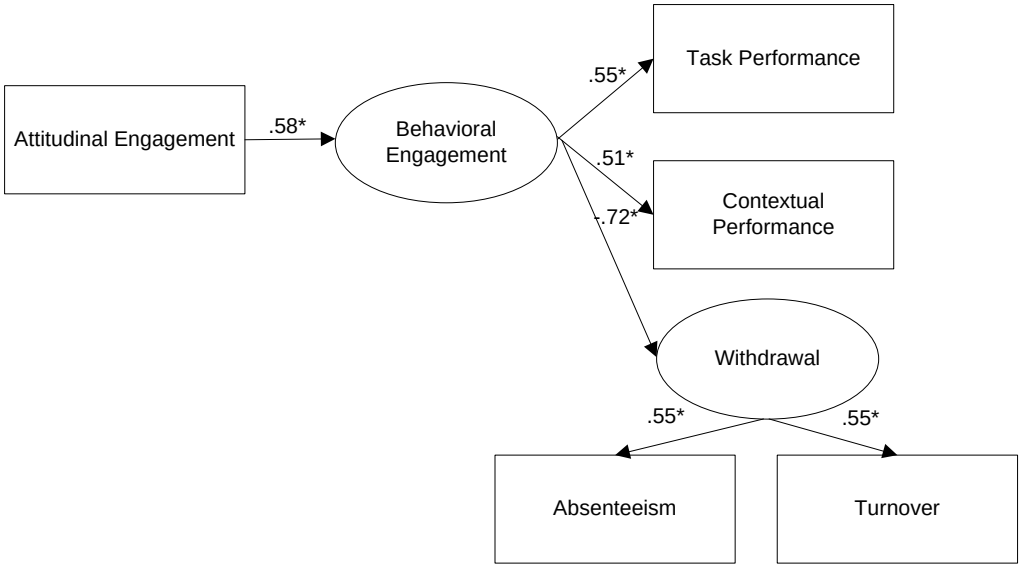

Figure 17: Attitudinal Engagement-Behavioral Engagement Model. (RMSEA = .12; CFI = .89; TLI = .77; SRMR = .05; harmonic mean N = 1,138). RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual. *Note:* Asterisk denotes significant path coefficients.

DISCUSSION

The purpose of the current study was to add clarification to the literature regarding the construct of employee engagement. Specifically, this study sought to identify whether engagement was a new unique construct or simply "old wine in new bottles" and if so, what implications that may have for the field of Industrial/Organizational Psychology. Engagement has been an increasingly popular concept in research literature as well as practice as organizations seek ways to engage employees in their jobs and the organization. Previous research has examined engagement's relationship with job attitudes and important outcome variables such as performance (Bakker et al., 2004; Rich, 2006) while others have examined the mechanisms through which engagement emerges (Bakker, 2011). This paper extended previous meta-analytic work by Harrison et al. (2006), Newman et al. (2010), and Christian et al. (2011) by updating the meta-analytic relationship that engagement has with task and contextual performance and calculating meta-analytic estimates for the relationship between engagement and the withdrawal behaviors of absenteeism and turnover. This study also re-examines the incremental validity of engagement beyond traditional job attitudes (i.e., job satisfaction, job involvement, organizational commitment) in the prediction of task performance and contextual performance and is the first to examine the incremental validity of engagement over traditional job attitudes in predicting absenteeism and turnover in an effort to better understand what engagement may have to offer the job attitudes literature. Results of the re-analysis of the incremental validity provide much smaller estimates of the change in R^2 compared to previous research. Specifically, previous research found that engagement explains 19% of the variance in task performance above and beyond job attitudes (Christian et al., 2011), whereas the results of

the current study suggest a much more conservative estimate of 3.7% unique variance explained, which is roughly six times smaller than the original estimate. The unique variance explained in contextual performance by engagement was 16%, compared the estimate of the current study, which was only 2.5% (i.e., previous research provided an estimate that was roughly 5 times larger than the results of the current study). In other words, it appears that engagement does offer some incremental validity in the explanation of task and contextual performance, although not nearly as much as described in prior work.

When trying to understand what employee engagement may have to offer job attitudes from a measurement perspective and in particular where the incremental validity is coming from I examined the table presented in Newman and Harrison (2008) that looked at items from the UWES and compared them to items from long-established attitudinal scales. My analysis revealed strong overlap among the dedication and absorption items, but less overlap among job attitudes and the vigor subscale. It is possible that the incremental validity provided by engagement is represented within the vigor subscale and this is the unique aspect of engagement.

This study was the first to examine the meta-analytic relationship attitudinal engagement has with the withdrawal behaviors of absenteeism and turnover. Results suggest that while attitudinal engagement may not have much to offer with regards to absenteeism ($\Delta R^2 = .000$), engagement does have a strong relationship with turnover adding a substantial amount of incremental validity over traditional job attitudes ($\Delta R^2 = .083$). These results suggest that while attitudinal engagement may offer some incremental validity over job performance specifically, what it may be the best at predicting is actual turnover within organizations. However, it is best to interpret this specific result with caution as the engagement/turnover relationship is only based

on 1 study because of the lack of research in the current literature. Nevertheless, this provides some promise to the many organizations that are using employee engagement as one way to examine turnover within their organizations (Fox, 2012).

In addition to incremental validity, this study examined several attitude-engagement models in an effort to understand what, if anything engagement has to add to the literature and the field in the prediction of specific and broad work behaviors. First, the re-analysis of the Christian et al. (2011) model with new task performance and contextual performance estimates was necessary to see if the model still fit the data with estimates that were not as robust as their research had discovered. The results suggest the model still had good fit (RMSEA = .10), but the path coefficients between attitudinal engagement and task performance and contextual performance were significantly smaller than those found by Christian et al. (2011); $\Gamma = 0.23$ for task performance vs. $\Gamma = 0.36$; and $\Gamma = 0.23$ for contextual performance vs. $\Gamma = 0.38$. These results again suggest attitudinal engagement's predictive validity may have been over-estimated. The study also sought to compare this model to a model in which attitudinal engagement was included as a sub-facet of the *A-factor.* Newman et al. (2010) found support for a model that included attitudinal engagement as a sub-facet of the *A-factor* so a model utilizing the latent construct of the *A-factor* as the mediator between the antecedents and performance was examined. Unfortunately the model produce poor fit (RMSEA = .17), and therefore the path coefficients could not be interpreted.

However, although it was important to test these three models to re-examine the mediated model that Christian et al. (2011) proposed, the main purpose of this paper was to examine what attitudinal engagement had to add to the literature and the field of I/O Psychology. The

remaining models focused specifically on the relationship between attitudes and effectiveness (behaviors).

Harrison et al. (2006) found support for the compatibility principle (Ajzen & Fishbein, 1977) which stated that attitudes are the best predictors of behaviors when they are both assessed at the same level of generality. The shared variance of job attitudes takes a broad level of generality and for this reason it may not make sense to use the *A-factor* as a predictor of individual behaviors (task performance and contextual performance) as this is at the wrong level of analysis (broad vs. specific). The first model examined the relationship the *A-factor* (including attitudinal engagement as a sub-facet) had with *behavioral engagement,* which has been previously mentioned, is a term used by Harrison et al. (2006) and Newman and Harrison (2008) to represent the higher order factor of individual effectiveness. This model provided moderate fit (see Figure 13) with attitudinal engagement loading 0.75 onto the *A-factor*. This provides further evidence to support Newman et al.'s (2010) findings which suggest attitudinal engagement may be an indicator of the *A-factor*. Another important finding from this model is the strong path coefficient from the *A-factor* to *behavioral engagement* of 0.62. This path coefficient would suggest the *A-factor* may have higher predictive validity than cognitive ability which has displayed a validity coefficient of $\Gamma = .51$ (Schmidt & Hunter, 1998). The strength of the path coefficient is extremely important to attitudes' researchers that have struggled to defend the utility of their constructs when it comes to linking attitudes to job related behaviors. This finding builds on Newman et al. (2010) and Harrison et al. (2006) finding even stronger path coefficients between higher order job attitudes and higher order work behaviors than previous research has by including attitudinal engagement as a sub-facet.

The next step was to test a model where attitudinal engagement was removed as a sub-facet to see if the path coefficient between the *A-factor* and *Behavioral Engagement* would remain strong. This model had good fit (see Figure 16) and provided a similar path coefficient of 0.56. Figures 15 and 16 taken together suggest that attitudinal engagement may not be as unique as previous research has found (Christian et al., 2001; Macey and Schneider, 2008). However, attitudinal engagement still appears to have some benefit as a gain of 0.06 in the path coefficient does provide evidence that it may help in the prediction of *behavioral engagement.*

The final model proposed and tested examined the relationship between attitudinal engagement and *behavioral engagement.* This model was designed to see if attitudinal engagement exhibited similar predictive power as the *A-factor*. The path coefficient between attitudinal engagement and *behavioral engagement* for this model was 0.58. Although the model fit for this particular model was only adequate (RMSEA = .12; CFI = .89; SRMR = .05) I have reason to believe the fit was impacted by the instability of the engagement turnover correlation coefficient. I was only able to find one original study looking at individual levels of engagement and individual levels of actual turnover. However an estimate provided by Harter et al. (2002) of $\rho = .31$ for the relationship between job-unit level engagement and job-unit level turnover placed into the meta-matrix provides good fit for the model. For this reason I believe that as more data is collected the meta-analysis rho will become more accurate and the model fit will improve. This model is still particularly valuable and these models taken together provide excellent insight into the true value of attitudinal engagement. Specifically, it appears that engagement does not appear to be a new, unique construct. The path coefficients between the *A-factor* and *behavioral engagement* and attitudinal engagement and *behavioral engagement* are very close (.56 & .58)

This, taken with the high inter-correlations among the attitudes and Newman et al.'s (2010) research, suggests a good amount of overlap and very little unique predictive validity. However, I believe the findings from these models still may have important implications from a practitioner's standpoint. Because engagement predicts broad work behavior nearly as well as the *A-factor,* engagement appears to do an excellent job of acting as a short-hand proxy for the *A-factor,* which can often times involve as many as 100 items when you include full measures of job satisfaction, organizational commitment, and job involvement.

Implications

The results of this study have implications from a theoretical and an applied standpoint. Although the study found support for three (task performance, contextual performance, and turnover) of the four hypotheses regarding incremental validity provided by attitudinal engagement above and beyond traditional job attitudes, the incremental less than substantial (i.e., ΔR^2 = .037, .025, and .083, respectively) and the incremental validity for task and contextual performance is far less than what previous research has suggested (Christian et al., 2011). This, taken with the results from each of the tested models, suggests that attitudinal engagement's "uniqueness" may have been overestimated by previous authors (Macey & Schneider, 2008) and although it may not offer quite the impact early literature suggested, it still has some usefulness to researchers. Of particular interest was the moderate amount of incremental validity attitudinal engagement provided for turnover. Many white papers have pointed to engagement's intuitive relationship with turnover, but very little actual empirical research has examined the relationship. One limitation of drawing conclusions from this study with regards to that relationship, which will be discussed in more detail in the following section, is the availability of original research

on the relationship between engagement and turnover. This meta-analytic estimate was based on one validity coefficient; therefore, the instability in the estimate could be part of the reason the incremental validity is so large for that criterion compared to the others.

Despite findings that suggest engagement's predictive validity may have been over-estimated this study does not suggest attitudinal engagement has nothing to contribute to the field. Attitudinal engagement has become very common among organizations that want to check the engagement pulse of their employees. Results of the study suggest that not only can attitudinal engagement increase the predictive validity of the *A-factor,* when included as a facet of the *A-factor* (.56 without attitudinal engagement and .62 with attitudinal engagement), but it can also act as a short-hand proxy for job attitudes in general. The path coefficient between attitudinal engagement and *behavioral engagement* was .58 compared to the path coefficient of .56 between the *A-factor* and *behavioral engagement.* Attitude surveys are often given to large groups of employees on an annual or bi-annual basis in organizations, and these surveys can often be time consuming to the survey participants. The findings of this study provide evidence to support the use of attitudinal engagement surveys as a short-hand measure of the *A-factor.* Most engagement surveys have fewer than 20-30 items (UWES, Gallup, DDI). For this reason, I suggest attitudinal engagement may be a more efficient way for practitioners to measure the *A-factor.*

Limitations and Directions For Future Research

Although this study expanded on earlier research in several ways it is not without its limitations. The next section provides several limitations to the study as well as directions for future research.

Turnover Data

One of the major limitations of this study is the lack of data in the current literature examining the relationship between engagement and actual turnover. There is an abundance of literature on the relationship between turnover and behavioral intentions, but research suggests these variables only correlate at $\rho = .50$ (Steel & Ovalle, 1984). This research along with other prior research examining the relationship between behavioral intentions and actual behaviors suggests it is very important to examine the relationship engagement has with actual turnover in addition to the research that has been done on turnover intentions. However, I could only locate one manuscript that examined the relationship between engagement and actual turnover (Peterson et al., 2011). Including additional studies of the relationship between engagement and turnover is likely to improve the stability of the validity coefficient between the two variables.

Future research would benefit from conducting more individual studies examining the relationship between turnover and engagement at the individual level. This data will help us to better understand the true relationship between engagement and turnover within organizations.

Engagement Measures

There are many types of engagement surveys. For the purposes of this study, I wished to remain consistent with Christian et al. (2011). Included scales were the Utrecht Work Engagement Scales (UWES) and the disengagement scale of the Oldenburg Burnout Inventory (OLBI; Demerouti et al., 2001; 2003) which were the two scales Christian et al (2011) used. However, the primary measure included in the current meta-analysis was the UWES. The OLBI was only used in one of the meta-analytic estimates (Bakker, 2004) for task and contextual performance. The UWES is the standard engagement scale in the academic literature; however

practitioners use a variety of engagement scales and studying the relationship those may have with *behavioral engagement* is something that should be addressed as we continue to examine the use of engagement as a proxy for the *A-factor.*

Future research would benefit from examining the relationship between *behavioral engagement* and attitudinal engagement measures used by practitioners. This is important because the results of this study suggest the largest benefit of attitudinal engagement may come from the use of these measures as a more efficient proxy for the measure of all three traditional job attitudes which could include as many as 100 items. Including these practitioner developed measures of engagement would allow us to examine how well each acts as a proxy.

Lateness

Withdrawal behaviors as discussed by Hulin (1984; 1991) included the behaviors of absenteeism, turnover and lateness. Thus, another limitation was the exclusion of lateness as a withdrawal behavior. To the author's knowledge, there are no original studies in the current literature examining the relationship between lateness and engagement. By excluding the lateness variable, the path coefficients between withdrawal and *behavioral engagement* may be slightly under-estimated. Newman et al. (2010) found a standardized path coefficient between behavioral engagement and withdrawal of (Γ =- .73) compared to my estimate of (Γ =- .64), this stronger relationship could have provided further insight into the relationship between withdrawal and attitudinal engagement.

Future research should examine the relationship between lateness and engagement in an effort to understand how engagement impacts the last of the three withdrawal behaviors and what

impact this has on the relationship between attitudinal engagement and the withdrawal construct as a whole. Because of engagement's close relationship with traditional job attitudes, it is likely that engagement will be strongly related to lateness, but this is still an important relationship that must be examined.

Scale Analysis

One limitation of a meta-analysis is the inability to examine individual items and dimensions of scales. An analysis of both the item level and dimension level of the Utrecht Work Engagement Scale (UWES) may provide some insight into whether it is particular items of dimensions that are contributing unique variance to the prediction of work behaviors. Careful examination of items presented in the Newman and Harrison (2008) table provides some preliminary evidence that the vigor dimension is less represented by the traditional job attitudes items than are the dimensions of dedication and absorption. It is possible that the incremental validity is provided by the vigor dimension and not by the engagement scale as a whole.

Future research should examine the incremental validity provided by engagement above traditional job attitudes at a dimension level to identify whether it is specific dimensions that provide the incremental validity found in the literature.

Conclusion

This study has addressed several gaps in the current engagement literature. Results of the study suggest that while attitudinal engagement does offer some incremental validity over traditional job attitudes when it comes to the prediction of individual level work behaviors; specifically task performance, contextual performance, and turnover, its value may have been

over stated in previous research. Further, this study found support for the idea that the *A-factor* with and without attitudinal engagement as a facet is a strong predictor of *behavioral engagement* (i.e., broad work behaviors). The path coefficient of .62 between the *A-factor* and *behavioral engagement* with the inclusion of attitudinal engagement as a sub-facet provides strong evidence that all four job attitudes (job satisfaction, job involvement, organizational commitment, and attitudinal engagement) are extremely robust predictors of higher-order job behaviors. Finally, this study found preliminary support for the idea that while engagement may not be a completely new and unique construct it still may offer value to the field as a proxy measure of the *A-factor*, specifically in those instances when long measures of attitudes are not feasible as is the case in many organizational environments.

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