# The Work Intention Inventory: Initial Evidence of Construct Validity

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**Abstract**

Some contemporary authors have advocated the use and measurement of intention as a means to increase the understanding and application of employee engagement and work passion in organizational settings. The purpose of this article is to describe the rationale, methods, and results across two studies conducted to develop, refine, and validate a set of work intention scales. Evidence of construct validity for the employee Work Intention Inventory (WII) is presented along with limitations, and implications for research and practice.

**Keywords:** Work passion, Construct validity, Intent to stay, Endorse, Perform, Organizational citizenship behavior, Discretionary effort

## 1. Introduction

The concept of intentions has been present in the psychological research literature for the last four decades. Since Wicker's seminal review(1969) which showed that general attitudes only weakly predict specific behaviors, several models have been developed to explain the connection between attitude, intention, and behavior (Webb & Sheeran, 2006). Models such as the theory of reasoned action (TRA; Fishbein & Ajzen, 1975), the theory of planned behavior (TPB; Ajzen, 1985, 1991) and the prototype-willingness model (PWM; Gibbons, Girard, Blanton & Russell, 1998),

each strive to explain the relationship between intention and behavior. Each model accords that intentions play key role in the prediction of behavior (Webb & Sheeran, 2006).

Correlation studies (e.g., Armitage & Connor, 2001; Godin & Kok, 1996; Randall & Wolf, 1994) have shown that intentions are reliably associated with behavior. Armitage and Connor's meta-analysis (2001) using the Theory of Planned Behavior (TPB) found that the weighted sample average correlation between measures of intention and behavior is .47, as did other meta-analysis (see Godin & Kok, 1996; Randall & Wolf, 1994 for similar findings).

There have also been several meta-studies using these attitude-intention-behavior models over the years in social and health psychology studies supporting the relationship between intention and behavior (i.e. Cooke & Sheeran, 2004; Gollwitzer & Sheeran, 2006). In a most recent meta-analysis which examined the role of intention in social and health behaviors, Webb & Sheeran (2006) wrote,

"findings from 422 studies involving 82,107 participants showed that intentions account for 28% of variance in behavior on average (r+ square = .53).Thus, meta-analyses of correlational studies have suggested that intentions have a large effect on behavior, according to standard estimates of effect size (Cohen, 1992)" (p. 251).

Intentions have been shown to be a strong construct in the attitude-intention-behavior sequence. While there are caveats to some of these findings, such the effects of unconscious goals on behavior (i.e. Chartrand & Bargh, 2002; Gollwitzer & Bargh, 2005) or the role expectation plays in the behavior-intention connection (i.e. Sheppard, Harwick & Warshaw, 1988), it is not our role to critique the state of intention literature at this time but rather to affirm the value of using intentions rather than general attitude cognitions when designing surveys.

### *1.1 Present Research on Employee Engagement/Work Passion*

Another field of research on employee engagement or work passion has emerged in the last 20 years (e.g.Macey and Schneider, 2008; Shuck & Wollard, 2009; Zigarmi, Nimon, Houson, Witt, & Diehl, 2009). As the concept of employee engagement or work passion has begun to show signs of maturing, various perspectives have begun to emerge (Shuck, 2011). As part of the emergence of various perspectives, engagement formation or work passion formation has been linked to a broader range of theories such as self-determination theory, social exchange theory, social identity theory, role theory and the job demands resource model (Albrecht, 2010).

Recently, Zigarmi et al. (2009) proposed a definition and social cognitive model as an explanation for how employees become passionate about their work. Their definition of employee work passion was presented as "*an individual's persistent, emotionally positive, meaning-based, state of well-being stemming from reoccurring cognitive and affective appraisal of various job and organizational situations that result in consistent constructive work intentions and behavior"* (Zigarmi et al., 2009, p. 310). They proposed a model which contained a two-phase process of appraisal, the second phase involving the development of intentions and behaviors as a manifestation of an employee's work passion (Zigarmi et al., 2009). In subsequent publications, (Nimon, Zigarmi, Houson, Witt, & Diehl, 2011; Zigarmi, Nimon, Houson, Witt, & Diehl, 2011) they called for the development of an intention scale which could measure employee work intention.

### *1.2 Purpose of the Study*

The purpose of this study is to present initial evidence of construct validity for a set of scales designed to measure employee work intentions. The Work Intention Inventory (WII) is designed to assess a set of work intentions that result from employees' state of well-being (or lack thereof). The following four steps are described to meet the above stated purpose. Step one involves a definition, and description of the construct of intention. Step two involves the rationale for the use and measure of the concept of intention. Step three involves the description of the process of sub-construct selection, definitions of the chosen sub-constructs, and the strategy for development of items. Step four involves the development and validation of scales. In providing evidence of construct validity, we present the methodology and results of two studies that assessed the factor structure, reliability, and convergent validity of WII scores. However, first, we define and describe the general construct of intention.

## 2. Theoretical Foundations of Intention

Intentions are mental representations of a desired future (Ajzen & Fishbein, 1980; Bagozzi, 1992). We define intentions *as goal representations or schema, and means representations or schema, formed as a result of the appraisal process to meet needs and wants stemming from a sense of, or lack of, the appraiser's well-being* (Baldwin & Baird, 2001; Heckhausen & Beckmann, 1990, Malle, Moses, & Baldwin, 1999). Intentions are best understood as a guide to purposeful action because they are a mental representation of behavior an individual might or will use to cope with a high or low sense of well-being.

There are two types of intentions: goal intentions and their contingent means intentions (Gollwitzer & Sheeran, 2006; Heckhausen & Beckmann, 1990). In a sense, goal intentions are the perspective by which means intentions are judged. Means intentions are directly connected to the outcome. Goal intentions are attained through one's means intentions (Heckhausen & Beckmann, 1990). Means intentions are "in the service" of an outcome intention, chosen among alternative means to achieve the end and contingent upon feedback once action is taken (Heckhausen & Beckmann, 1990).

One further point must be made. Ajzen & Fishbein (1980) said it best when they wrote,

"People sometimes fail to distinguish between behaviors and occurrences that may be the outcome of those behaviors. For example, success on exams and weight reduction has been used to measure behavior. In point of fact neither of these criteria is a measure of behavior. Success on exams is a possible outcome of such specific actions as attending lectures, reading books, memorizing materials, or even copying answers from another person's paper. Similarly losing weight may be the result of such actions as eating low calorie foods, skipping meals, or jogging 2 miles a day" (p 29)..

The question of outcomes versus behavior can often be seen in organizational settings where leadership is concerned with understanding and predicting outcomes such as productivity, sales, stock price, or customer satisfaction. Since we're ultimately concerned with behaviors that reflect employees who are passionate about their work, it would be important to identify intentions that lead to behavior indicative of that work passion, not business outcomes that could be the result of those behaviors. The distinction between outcomes and behaviors having been made, it is important for the reader to note that we are advocating the use of means intentions in the content of this work intention inventory because means intentions have been shown to be better predictors than outcome intentions or goal intentions (i.e. Gollwitzer,1999; Ziegelmann, Luszczynska, Lippke & Schwarzer, 2007).

*2.1 Rationale for Use*

There are three specific reasons why the concept of intention should be meticulously formed and specifically measured. Those reasons are; 1.) Intentions are far better predictors of resultant behaviors as compared to outcome measures of organizational commitment or job satisfaction, 2.) There would be less inferring of engagement, satisfaction or commitment when specific predictable behaviors are important, 3.) There would be less unnecessary blurring of concepts and items.

2.1.1 Better Predictors of Behavior

A close examination of much the turnover literature reveals some important insights. Various authors have made the distinction between turnover intentions (i.e." I intend to remain in my profession but to leave my current company at or before the end of this year."Luna-Arocas & Camps, 2008), organizational commitment (i.e. "I really care about the fate of this organization."Angle & Perry, 1981), job satisfaction (i.e. "Generally speaking, I am very satisfied with this job."Hackman & Oldham, 1974), withdrawal cognitions, and turnover behavior. In a meta- analytic study (178 independent samples from 155 studies) to estimate the relationships between job satisfaction, organizational commitment, turnover intentions/cognitions, and turnover behavior, it was found that turnover intentions/cognitions were the strongest predictor of turnover behavior (.45) followed by organizational commitment (-.33) and job satisfaction (-.25) (Tett & Meyer, 1993, p.270). This trend was verified by a later meta-analysis (Griffeth, Hom & Gaetner, 2000) showing intention to leave was the best predictor (.38) of turnover behavior followed by organizational commitment (-.23) and job satisfaction(-.19, p.480) This data was also supported by an earlier meta-analysis of 34 studies in which intentions were more predictive of attrition then overall job satisfaction, satisfying work itself or organizational commitment (Steel & Ovalle, 1984).

In the case where studies used withdrawal cognition (i.e."If I had to do it again I would not come to work for this organization") as well as turnover intentions, withdrawal cognitions accounted for less variance than did turnover intentions (Griffeth et al., 2000; Tett & Meyer, 1993). In Tett and Meyer's meta-analysis (1993), withdrawal cognitions accounted for 21% less variance than turnover intentions. They go on to say

"...in keeping with their conceptual origins, then, withdrawal cognitions appear to be broader than intent to leave, more closely related to work attitudes, and more distally related to turnover. Researchers are cautioned that combining intent to leave with conceptual antecedent constructs (e.g., for the sake of parsimony) could substantially alter conclusions concerning the role of behavior intent in the turnover process" (Tett & Meyer, 1993p. 283).

When information found in turnover studies thus far completed, are combined with the data and studies being done in the field of health and social services using the attitude-intentions-behavior models, it leads one to think that researchers should consider using more intention items in their studies as dependent variables.

2.1.2 Less Inference.

We agree with various authors regarding the amount of imprecision that has occurred because of existing measures (i.e. Albrecht, 2011; Bozeman & Perrewe, 2011; Jaussi, 2007; Solinger, van Olffen & Roe, 2008; Tett & Meyer, 1993; Wefeld & Downey, 2009). The tendency to repetitively use surveys items which have been proven to correlate, without a careful examination of how those items fit the constructs to be measured, can lead to a certain level of imprecision. We believe that the origins of imprecision can happen through inference **and/or** blurring.

Inference often happens when a concept is used to suggest another concept. Take the example item given by Tett & Meyer (1993), "It would take very little change in my present circumstance to cause me to leave this organization". This item is in line with the intent to quit but does not exactly express that intent. This is withdrawal cognition. It is not an expressed intention. The primary question remains, should this item be used as a satisfaction item or an intention item. It was found that in the case of the job satisfaction construct, satisfaction shared 26% more variance with withdrawal cognitions than with turnover intentions (Tett & Meyer, 1993, p.283). Withdrawal cognitions should not be used to infer turnover intentions.

The common usage of the word commitment "refers to a pledge or promise of some sort…. and refers to the condition of someone who is made a firm agreement with another party connected to some future event" (Brown, 1996, p. 233). Brown goes on to state that it is "virtually impossible to describe commitment on any other terms other than one's inclination to act in a given way toward a particular commitment target" (p. 234). To put it another way, the foundation of commitment is the inclination or intention to act in a particular way and by measuring these intentions we are fundamentally assessing commitment.

2.1.3 Less Blurring.

Blurring often happens when the same type of item is used to measure two, supposedly, different constructs. Tett and Meyer (1993) state that satisfaction is often confused with withdrawal cognitions. They wrote,

“A review of a lengthy compendium of satisfaction scales (Cook, Hepworth, Wall, & War, 1981) did in fact suggest some degree of contamination in global (but not facet) measures” (Tett & Meyer, 1993). They go on to say, "the relatively strong correlation between satisfaction and withdrawal cognitions may be at least partly attributable to conceptually related items contained in some satisfaction scales. Researchers comparing the relative importance of work attitudes and turnover models are advised to use scales free of confounding items″ (Tett & Meyer, 1993 p.283).

In a more recent article examining the viability of the three component model (TCM) of organizational commitment by Allan and Meyer (1990), it was found that the instrument combined fundamentally different attitudinal phenomena (Solinger, Olffen & Roe, 2008). Solinger et al. go on to say that the Allan & Meyer concept of organizational commitment is “best be understood as an attitude regarding the organization while normative and continuance commitment are attitudes regarding a specific form of behavior”(Solinger et al., 2008, p.70). Their analysis showed that “the TCM failed to qualify as a general model of organizational commitment and instead represents a specific model for predicting turnover (Solinger et al., 2008, p.70). In their conclusion they make the point that "future research may improve the discriminate validity of existing measures by giving due attention to the cognitive, emotional, and behavioral components of the commitment attitude" (Solinger, et al., 2008, p.80).

We fear that the use of items to measure general engagement attitudes (e.g. withdrawal cognitions and satisfaction) have “clouded “some of the research connecting employee work engagement with independent antecedent variables or relevant outcome variables such as organizational commitment and job satisfaction.

**3. Selection of Constructs.**

Using the employee work passion model developed by Zigarmi et al. (2009) and field tested by Zigarmi et al. (2010) as our theoretical model, we performed a review of literature to select a set of work intention constructs that mediate the relationship between employee well-being and organizational and job role behaviors such as performance, absenteeism and attrition. As a foundation for our literature review, we used EBSCO as a search engine as it provided assess to number of databases including Academic Search Complete, PsychArticles, PsychCRITIQUES, and PsychINFO. We limited our EBSCO search to articles that were published between 1995 and 2010. Key search terms included intentions, intent, intentionality, and as well as terms such as, organizational commitment, job satisfaction, well-being, intrinsic motivation, and affect. We also examined articles that were published prior to 1995, in specific cases in which seminal work was frequently referenced (e.g. Ajzen, Fishbein, Bagozzi, Lazarus and Folkman). Finally, we conducted an issue by issue search of five selected journals in the last 15 years as is customary with typical large sweep studies (Colquitt, LePine & Noe, 2000; Williams, McDaniel, & Nguyen, 2006). *The Journal of Applied Psychology, Psychological Review, Psychological Bulletin, Journal of Applied Social Psychology,*

*Journal of Occupational and Organizational Psychology* were chosen because they were known to have published a large number of articles dealing with intentionality.

What became apparent after an examination of various constructs commonly used in the literature was that, except for intent to turnover, almost no outcome variables measuring employee perceptions associated with employee engagement were stated as intentions. Various items associated with employee commitment or engagement is usually stated as descriptive cognitions rather than intentions.

We also found a number of sub-constructs that were consistent with the construct of work intention. Based on frequency of occurrence in published literature, magnitude of correlations with theoretical antecedents (e.g., work cognition, work affect, employee well-being) and consequences (e.g., absenteeism, turnover, performance), and concern for overall survey length, we selected five constructs of work intention on which to develop scales.

*3.1 Definition of Subscales.*

The five work intentions chosen were: (a) intent to stay, (b) intent to use OCBs, (c) intent to use discretionary effort, (d) intent to endorse, and (e) intent to perform.

3.1.1 Intent to Stay.

Although it is also referenced in the literature as intent to leave or turnover, we named this intention in the positive voice as *intent to stay* and defined it as the extent to which an employee intends to remain within an organization. Intent to stay or intent to leave/turnover was the most frequently cited construct of work intention in the studies we reviewed. Several meta-analyses (i.e., Griffeth, et al., 2000; Podsakoff, Lepine, & LePine, 2007; Steele & Ovalle, 1984; Tett & Meyer, 1993) showed the value of measuring intentions to predict turnover behavior.

Because of the impreciseness of some studies, we found the concept of intent to leave or to stay often confused with certain aspects of organizational commitment (e.g., Solinger et al., 2008; Tett & Meyer, 1993). Also, the difference between withdrawal cognitions and turnover intentions needs to be continually emphasized so as to *not* be confused with the more proximal turnover intentions. In the case of turnover intentions, most of the intent to stay or intent to turnover items is stated as true intentions (see Tett & Meyer, 1993; Griffeth et al., 2000). When intent to leave or stay items were used precisely, the construct was a strong predictor of attrition behavior, as well as correlating with other important outcome variables such as organizational commitment and job satisfaction (i.e. Griffeth, Hom & Gaetner, 2000; Tett & Meyer, 1993; Steel & Ovalle, 1984).Turnover intentions also correlated with work constructs such as autonomy, feedback, distributive justice, and connectedness with leader (i.e., Eby, Freeman, Rush, & Lance, 1999).

3.1.2 Intent to Use OCBs.

We define *intent to use OCBs* as the extent to which an individual intends to behave in ways that are respectful, considerate, and sensitive to others and which supports the welfare and effectiveness of the entire organization. An example of the expressed intention would be "I intend to watch out for the welfare of others at work" or "I intend to respect this organization's assets". Note that these intentions are discretionary, in the sense that they are not likely found within most job descriptions or usually not explicitly recognized by a formal reward system. While there are multiple dimensions of OCB, we chose to define OCB in the aggregate, based on the recommendations of LePine et al. (2002) and Koy (2001).

The OCB construct was the second most frequently studied area of work intention found in literature. It has evolved over time to represent a multitude of sub-dimensions (Organ & Ryan, 1995). While, Smith, Organ, & Near (1983) originally defined OCB with dimensions of *altruism* and *compliance*, Organ and Ryan (1995) later expanded the construct to include dimensions of *altruism, conscientiousness, sportsmanship, courtesy,* and *civic virtue*. Instrumentation which typically measures these constructs takes the form of self/or other survey items which ask respondents to rate themselves and/or their coworkers. OCB items are usually not stated as formal intentions, yet imply them. For example, "I am always ready to lend a helping hand to those around me" (Podsakoff et al, 1990) implies that the responder intends to use this behavior in the future.

There are strong correlations among most of the OCB dimensions (e.g., altruism, sportsmanship, conscientiousness, civic virtue) and outcome variables such as job satisfaction, organizational commitment, and performance (e.g. LePine, et al., 2002; Organ & Ryan, 1995; Podsakoff, et al., 1990). Also, various OCBs have been shown to correlate with antecedent variables such as procedural justice, distributive justice, connectedness with leader, and meaningful work (e.g. Colquitt, Conlon, Wesson, Porter, & Ng, 2001; LePine, et al. 2002; Podsakoff, et al. 1990, 2007).

3.1.3 Intent to Use Discretionary Effort.

We define *intent to use discretionary effort* as the intent of an employee to expend efforts on behalf of the organization, above and beyond the agreed-upon requirements. While this behavior is not an enforceable requirement of the role or job description, it usually involves the use of employees' time as well as effort which "goes beyond the call of duty" or "goes the extra mile" (Dubinsky & Skinner, 2002). As such, discretionary effort is not required but if undertaken will be done to benefit the organization.

The concept of discretionary effort arose from the early research on OCBs by Smith, Organ, and Near (Zeidan, 2006). Through their research, they sought to elaborate on the nature of various behaviors exhibited by employees that go beyond the conformity of contractual role or job descriptions, and demonstrate cooperation, helpfulness and gestures of goodwill which contributed to the social fabric and ease of social interaction (Smith, Organ & Near, 1983). In 1997, Organ "cleaned-up" his definition of OCB by indicating that it was no longer fruitful to regard OCBs as extra role, beyond the job, or unrewarded by the formal system (Organ, 1997). Rather, he defined "OCB performance as those behaviors which support the social and psychological environment in which task performance takes place" (1997, p. 95). As a result, it appears that the set of behaviors concerned with discretionary effort have been left out of the traditional definition of OCB.

We found very little research using discretionary effort since 1997. However, the research that does exist indicates that discretionary effort positively correlates with the environmental antecedents of positive employee-coworker relationships and employee-manager relationships (Dubinski & Skinner 2002; Gould-Williams, 2003). Similarly, it correlates with employee training and development, performance-related pay, access to information sharing, and egalitarianism (Gould-Williams, 2003). Finally, it has been shown to positively correlate with perceived psychological contract fulfillment, affective commitment to the job and organization (Zeidan, 2006), and engagement (McPherson, 2007; Shuck, Reio & Rocco, 2011).

3.1.4 Intent to Endorse.

We define *intent to endorse* as the extent to which an employee intends to endorse the organization to others as a good place to work and as a quality supplier of goods and services. While traditionally considered an OCB, it is also referenced as loyal boosterism (Moorman & Blakely, 1995). Research on loyal boosterism originated from philosophical differences concerning whether individualism or collectivism influences use of OCBs (Moorman & Blakely, 1995). The concept of endorsement refers to the individual's uncritical faithfulness and connection to their organization. Endorsement implies that employees rise to the defense of the organization's interests and want to make contributions to the organization's good reputation and general welfare (Moorman & Blakely, 1995).

Endorsement was highly correlated with OCBs (Anderson & Bateman, 1997). Endorsement was also negatively correlated with cynicism and found to be an antipode to cynicism (Anderson & Bateman, 1997). Endorsement was found to positively correlate with organizational commitment, organizational citizenship behaviors, trust in the organization, and in role performance (Cheng, Aryee & Lee, 2005). Endorsement was also found to correlate with perceptions of procedural justice (Kamdar, Turban & McAllister 2006).

3.1.5 Intent to Perform.

We define *intent to perform* as the extent to which employees intends to do their jobs at a higher than average level, thereby effectively helping the organization succeed. In reviewing meta-analyses concerned with engagement and business outcomes (e.g. Harter, Schmidt & Hayes, 2002: Harter, Schmidt, Asplund, Killham, & Agrawal, 2010; Parker, et al., 2003; Rich, LePine & Crawford, 2010), organizational commitment (e.g. Meyer, Stanley, Herscovitch & Topolnysky, 2002; Riketta, 2002) and job attitudes and job performance (e.g. Fried & Ferris, 1987; Judge, Sorensen, Bono, & Patton, 2001; Riketta, 2008), we did not find the concept of the intent to perform used, even though measures of engagement or work attitudes were used as independent variables and hard economic data and performance criteria were used as dependent variables. It would therefore be reasonable to assert that engaged employees or employees passionate about their work, in long run, perform well.

*3.2 Strategy for Item Development*

The four latent constructs of cognition, affect, well-being, and intention set forth in the model advocated by Zigarmi et al. (2009; 2011) carry with them certain measurement considerations. The cognitive aspects of the model require that items be descriptive in nature. The affective aspects of the model were assessed by the use of semantic differential items to get at emotion inherent in the work experience. The second phase of the appraisal process results in a set of intentions that are generated to deal with realized difficulties, needs or wants connected with a negative or positive sense of well-being (Lazarus, 1984; 1990a). These rigorous distinctions were made to prevent blurring the

descriptive cognitions of the work environment with resultant affect and intentions stemming from these descriptive cognitions (Nimon et al., 2011).They maintained that intentions are often not conceptually or methodologically acknowledged as such.

In the development of the items found in the WII, a conscientious effort was made to frame the items as intentions. The WII is therefore not designed to measure either affect or descriptive cognitions of what "is." The items were developed to assess employee's intentions rather than to evaluate what the employee perceives as a condition of their work environment or what the employee *feels* about their work environment.

## 4. Development and Validation of Scales

A research team composed of five HRD professionals generated and validated the items for the five intention constructs. The team was comprised of four professionals from an international training and development consulting firm and a professor of HRD at an emerging research university. First, the team wrote specific definitions for each subscale as presented above. The team members developed items independently, and then met to discuss which items were to be retained and/or revised. This procedure yielded an initial pool of 51 items. We followed the sequential exploratory-confirmatory procedure from Nimon et al. (2011) to examine, refine, and confirm the factor structure of the scales. In conducting the Exploratory Factor Analysis (EFA), principal axis factoring and promax rotation was employed because of a hypothesized underlying theoretical structure of correlated factors. When considering how many factors to extract, we considered the conceptual contribution of each item (cf. Hair, Black, Babin, & Anderson, 2010), scree plots, eigenvalues, and Wood, Tataryn and Gorsuch's (1996) guidelines for over extractions. In the Confirmatory Factor Analysis (CFA), we employed the maximum likelihood estimation technique for testing CFA models as it focuses on creating parameters that reproduce the covariance matrix in the population as opposed to the sample (Thompson, 2004).

The final item set evolved over the course of two studies. Study 1 assessed the factor structure of the initial pool of 51 items, selected items that best fit a simple structure, confirmed the factor structure of the refined set of items and provided evidence of reliability of scale scores. Study 2 confirmed the factor structure resulting from study one and provided evidence of convergent validity.

### *4.1 Study 1*

#### 4.1.1 Purpose

Study 1 was designed to examine the underlying factor structure and reliability of the WII. Factor and reliability analyses were conducted with the intent of reducing the 51-item set to a total of 25 items (5 per scale). As with many researchers we started with "a substantially larger number of item than" was "planned to retain" (Worthington, 2006). The goal to produce a set of scales with five items each was consistent with the guidelines from Hulin, Netemyer & Cudeck (2001) that suggested constructs such as those defined for the WII could suffice with four or five items, recommendations from Durvasula, Netemyer, Andrews, & Lsonski, (2006) to develop multiple scale instruments with an equal number of items, and our desire to keep the instrument sufficiently concise to be repetitively used in field situations.

#### 4.1.2 Participants and Procedure

Participants included clients and client prospects of an international management and training consulting company. The consulting company was chosen out of convenience, as it was the affiliated institution of four of the five instrument's authors. Using a mailing list that the company maintained for marketing purposes, individuals were invited to this participate in the study and offered a free consulting report as an incentive. Those that volunteered were provided a link to a larger survey that included the WII. Of the 2, 052 who volunteered, 1366 completed the survey.

Of the 1,366 participants, 41.4% were male, 67.6% were managers, and the prominent age group was Gen Xers (1961 - 1981 = 52.2%) followed by Boomers (1943 - 1960 = 43.8%). The predominant number of employees worked in North America (65.4%). Employees worked in a variety of departments, including human resources (37.3%) and operations (21.3%). Tenure with organization and position varied across the volunteer sample as well as the size of the company for which employees worked.

The initial version of the WII contained 51 items. The intent to use discretionary effort scale had 9 items, intent to perform had 10, intent to endorse had 10, intent to stay had 11, and intent to use OCBs had 11. All items were measured on a 6-point scale, with 1 indicating *to no extent* and 6 indicating *to the full extent.*

4.1.3 Analysis.

Exploratory factor analyses were conducted using responses from a randomly chosen half of the sample ($n_1$ = 661), and the remaining responses were saved for a confirmatory factor analysis (CFA). The full sample was then used to compute reliability coefficients.

4.1.4 Results EFA (Subsample 1)

In the initial EFA, five factors with eigen values greater than 1.0 were extracted, accounting for 65.40% of the variance of the 51 original items. Analysis of the pattern and structure matrices indicated that 1 item did not load on its respective factor and 8 items had pattern coefficients below .50. Omitting those items resulted in five factors with eigen values greater than 1 being extracted, accounting for 68.74% of the variance of the 43 items submitted. Analyzing the pattern and structure coefficients indicated that 17 items could be omitted without an adverse effect on content coverage or scale validity, resulting in a desirable equal number of items per scale (Durvasula, et al., 2006). In the final EFA, five factors with eigen values greater than 1.0 were extracted, accounting for 65.84% of the variance of the 25 items submitted. All items had pattern coefficients in excess of .45 on their respective factor with no cross-loadings on other factors. Analysis of structure coefficients indicated that all items correlated most highly with their theoretical factor. Interfactor correlations ranged from .38 to .74. The lowest interfactor correlation was between *intent to perform* and *intent to stay*. The highest interfactor correlation was between *intent to use OCBs* and *intent to perform* (Note 1).

4.1.5 Results CFA (Subsample 2).

The CFA model used was a first order factor model in which the 25 WII items identified through the EFA were arranged in five correlated factors. Pattern coefficient values were all .60 or greater with the exception of one item (.56) under the *intent to stay* factor, indicating fairly appropriate measurement structure in terms of the pairs between measurement items and assigned factors (c.f. Bagozzi & Yi, 1988; Kline, 2005; Hair et al., 2010). Analysis of structure coefficients (Graham, Guthrie, & Thompson, 2003) indicated that all items correlated most highly with their theoretical factor. Interfactor correlations ranged from .32 to .79. The lowest interfactor correlation was between *intent to perform* and *intent to stay*. The highest interfactor correlation was between *intent to perform* and *intent to use OCBs* (Note 1). The Comparative Fit Index (CFI = .95) and Tucker-Lewis index (TLI = .94) met or came close to meeting the oft-recommended criterion value of .95 (cf. Schumacker & Lomax, 1996). Root mean square error of approximation (RMSEA = .06; 90% CI: .056-.065) was close to the recommended level of .06 (Hu & Bentler, 1999). Standardized root mean square residual (SRMR = .048) indicated a low chance of measurement error based on the common rule of standardized residual level of .1 (Hair, Black, Babin & Anderson, 2010). The five-factor correlated model fit the data better than a single factor model where all 25 items were directly loaded on a single factor($\Delta\chi^2[10] = 4638.3$, $p < .001$).

4.1.6 Reliability (Full sample).

The reliability coefficients for the seven scales ranged from .82 to .94. These values were above the standard cutoff of .80 (Henson, 2001).

*4.2 Study 2*

4.2.1 Purpose

Study 2 was designed to confirm the reliability and factor structure of the 25 work intention items resulting from Study 1 and to provide evidence of convergent validity. Scale scores from the WII were correlated to items from established scales to provide evidence of convergent validity.

4.2.2 Participants and Procedure

Study 2 participants were full-time employees of a small west coast telecommunications company. Employees were recruited by e-mail to participate in the study from an e-mail list the company maintained. Those that volunteered were provided a link to a larger survey that included the WII and related scales. Of the 288 who volunteered, 261 completed the study.

Of the 261 participants, 46.5% were male, 27.1% were managers, and the prominent age group was Gen Xers (1961 - 1981 = 68.7%). All of the participants worked in one of two locations that company maintained in the southwestern region of the United States. They worked in a variety of departments, including customer service (26.8%) and sales (15.3%) Tenure with organization and position varied across the volunteer sample.

The 25-item WII scale resulting from Study 1 was used. The scale consisted of five dimensions – intent to use discretionary effort (e.g., "I intend to volunteer for things that may not be a part of my job."), intent to perform (e.g., "I intend to work efficiently to help this organization succeed."), intent to endorse (e.g., "I intend to encourage people to do business with this organization."), intent to stay (e.g., "I intend to stay with this organization even if offered a more appealing job elsewhere."), intent to use OCBs (e.g., "I intend to support my fellow workers when I have an opportunity."). Each dimension was measured on a 6-point scale, with 1 indicating *to no extent* and 6 indicating *to the full extent.*

4.2.3 Scales Used for Convergent Validity

The altruism scale from Podsakoff, MacKenzie, Moorman, & Fetter's (1990) OCB measure was used to assess the convergent validity of the WII *intent to use OCBs* scale. The altruism scale consists of 7 items anchored on a 7-point scale, with 1 = *never* and 7 = *always* (e.g. "I will lend a helping hand to those around me").

The in-role behaviors (IRB) scale from Williams and Anderson's (1991) OCB measure was used to assess the convergent validity of the WII *intent to perform* scale. The IRB scale consists of 7 items anchored on a 5-point scale, with 1 = *strongly disagree* and 5 = strongly agree (e.g. "I perform tasks that are expected of me").

The loyal boosterism (LB) scale from Moorman and Blakely's (1995) OCB measure was used to assess the convergent validity of the WII *intent to endorse* scale. The LB scale consists of 5 items anchored on a 7-point scale, with 1 = *strongly disagree* and 7 = *strongly agree* (e.g. "I defend the organization when outsiders criticize it").

The discretionary effort (DE) scale from Gould-Williams's (2003) study was used to assess the convergent validity of the WII *intent to use discretionary effort* scale. The DE scale consists of 8 items anchored on a 7-point scale, with 1 = *strongly disagree* and 7 = *strongly agree* (e.g. "I volunteer for things that not are part of my job").

The intent to leave (ITL) scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenskins, & Klesh, 1983) was used to assess the convergent validity of the WII *intent to stay* scale. The ITL scale consists of 3 items anchored on a 7-point scale, with 1 = *strongly disagree* and 7 = *strongly agree* (e.g. "I often think about quitting").

4.2.4 Work Cognition Inventory

The revised Work Cognition Inventory (WCI-R; Nimon & Zigarmi, 2012) was used to determine if the WII scales explained more variance in job and organizational cognitions than the validity scales (i.e., altruism, DE, IRB, ITL, LB). The WCI-R contains twelve sub-scales of work cognition. Four sub-scales focus on job factors (autonomy, meaningful work, task variety, and work/ load balance), four sub-scales focus on organizational factors (distributive justice, procedural justice, growth, and performance expectations), and four sub-scales relate to people (connectedness with colleagues, feedback, collaboration, and connectedness with leader). We aggregated responses from the appropriate subscales to form overall job and organizational cognition scores. Items were measured on a 6-point scale, with 1 indicating *to no extent* and 6 indicating *to the full extent.*

4.2.5 Analysis.

Confirmatory factor analysis was conducted to confirm the factor structure identified in Study 1. The sample was then used to compute reliability coefficients and conduct convergent validity tests. We also conducted factor analyses on the scales that we used to test for nomological validity to test for model fit and determine if they resulted in a simple order factor structure.

## 5. Results

### *5.1 CFA on WII*

As in Study 1, the CFA model used was a first order factor model in which the 25 WII items identified through the EFA were arranged in five correlated factors. Pattern coefficient values were all .60 or greater with the exception of two items (.55, .56) under the intent to stay factor, indicating fairly appropriate measurement structure in terms of the pairs between measurement items and assigned factors (c.f. Bagozzi & Yi, 1988; Kline, 2005; Hair et al., 2010). Analysis of structure coefficients (Graham, Guthrie, & Thompson, 2003) indicated that all items correlated most highly with their theoretical factor. Interfactor correlations ranged from .37 to .73. The lowest interfactor correlation was between *intent to perform* and *intent to stay*. The highest interfactor correlation was between *intent to use OCBs* and *intent to perform* (Note 1). As in Study 1, results of commonly used goodness-of-fit indices indicated that the model fit the data reasonably well (CFI = .93; TLI = .92; RMSEA = .08). As in Study 1, the five-factor correlated model fit the data better than a single factor model where all 25 items were directly loaded on a single factor($\Delta\chi^2[10] = 2446.1$, $p < .001$).

*5.2 Factor Analyses on Validity Scales*

The CFA model used was a correlated factor model in which the items on each of the validity scales (i.e., Altruism, LB, IRB, ITL, and DE) were loaded on to their respective scales. Results of commonly used goodness-of-fit indices indicated that the five-factor correlated factor model did not fit the nomological data as well as the WII data (CFA = .82, TLI = .81, RMSEA = 10). To explore the lack of model fit clearer, we conducted an EFA on the validity data and found that with the exception of the ITL and LB scales, items from the validity scales either did not load on their expected factor or cross loaded with items from other scales (Note 1).

*5.3 Reliability and Convergent Validity of the WII*

Reliability and convergent validity coefficients for scores from each the scale and the subscales are included in Table 1. Consistent with Study 1, WII reliability coefficients fell above the standard cutoff of .80 (Henson, 2001), with all but one scale exceeding .90. Reliability coefficients for the established scales were more disparate. Given the range of reliability coefficients for the established scales, we computed traditional validity coefficients (*r*) (see Table 1) and also applied the correction for attenuation formula to the validity coefficients, as presented in Table 2. For the most part, correlations between WII scale scores and scores from established scales provided evidence of convergent validity. The notable exception was the WII *intent to use OCBs* scale. Not only did it correlate highly with altruism scores, it was also highly correlated with LB, IRB, and DE scores.

Tables 3 and 4 present the uncorrected and corrected correlations between the five intents and the two cognitions (job and organization) for both the WII and validity scale scores. With the exception of *intent to endorse*, the WII scales explained more variance in job and organizational cognition than the validity scales.

**6. Discussion**

The findings from the two studies indicated that the WII reveals five factors associated with work intention including: *intent to use OCBs*, *intent to endorse*, *intent to perform*, *intent to stay,* and *intent to use discretionary effort*. While the 25 WII item resulted in a five-correlated factor model with reasonable fit, commonly used scales to measure like constructs did not yield a simple order factor structure when similarly modeled. With one exception, the WII factors may be considered conceptually distinct from each other as they shared less than 50% common variance (cf. Ward, Fischer, Lam & Hall, 2009). We note that the correlations between *intent to use OCBs* and *intent to perform* found in Study 1 and 2 (*r*s > .70) could call into question their conceptual distinctiveness. However, one might expect these factors to correlate somewhat since task performance may be seen as the support for the welfare and effectiveness of the whole organization (Organ, 1997). It is also possible that our choice to define OCB's in aggregate (LePine et al., 2002; Koy, 2001) may also contributed to this phenomena.

There is initial evidence of convergent validity, as the correlations to five validity scales as the correlations in Tables 1 and 2(i.e., altruism, DE, LB, IRB, ITL) demonstrate. With the exception of *intent to use OCBs*, each WII scale correlated most highly with its validity scale counterpart. The *intent to use OCBs* scale not only correlated with *altruism* but also correlated highly with *loyal boosterism*, *discretionary effort,* and *in-role behaviors*. This is to be expected given the use of an aggregate set of items to measure organizational citizenship behaviors. There is also evidence that a majority of the WII scales explained more variance in job and organizational cognitions than the validity scales, as the correlations in Tables 3 and 4 demonstrate. The latter finding is in keeping with Tett and Meyer (1993), Steel and Ovalle (1984), and Griffeth et al, (2000) studies that suggest that intentions are a stronger dependent variable than general cognitions of attitudes.

*6.1 Implications for Research*

Three research implications emerge from this study. They are to: (a) establish additional validity of the five WII scales by correlating them to performance data in a field setting, (b) use the WII to validate the process model proposed by Zigarmi et al. (2011) and, (c) to establish additional evidence as to the role and implications that intentions could play in the field of HRD.

6.1.1 Performance Data Correlations

At the present time, this instrument lacks full confirmation that a relationship exists between in the WII scales and the behaviors they represent. By correlating these intentions to specific behaviors such as attrition, units sold, employee innovations, employee recruitment, and sabotage, the validity case for WII scale scores could be strengthened. This would help HRD practitioners and academics researchers make the case for a variety of interventions that might help increase employee work passion. Such performance data could be collected either at the

time that the WII is administered, providing evidence of convergent validity, or at a later point in time after the WII is administered, providing evidence of predictive validity.

6.1.2 Model Validation

A social cognitive process model of employee work passion was proposed by Zigarmi et al. (2009) and later field tested by Zigarmi et al. (2011). However, the field test did not use a set of validated employee work intention subscales, but instead used a single scale composed of three items selected from established scales. It would be prudent to test the employee work passion model using the five WII scales and provide a more in-depth analysis of the work intention construct in relation to the full model. Up to now, the void of instrumentation which measures pure intention independent of affective inferences or descriptive cognitions has made that test not feasible. The WII should allow researchers to more fully test the second phase of appraisal and determine how intentions form from employee well-being.

6.1.3 Role and Implications of Intentions

We encourage researchers to use the WII or instrumentation like it in various studies to shape and understand the nature of intentionality. We would like to see researchers who are interested in organizational commitment or job commitment to begin use the concept of intention in their studies. As the data presented here seems to suggest, greater correlations are possible when intentions are used instead of general attitude cognitions. Commitment is the intent to act in a specific way toward a specific target. Commitment should be expressed as a "general pledge." We believe that research could benefit from the clarity of intention items, or generalized behavioral pledges that indicate an "action readiness" on the part of the respondent. Intention cognition items could reduce the amount of speculation or inference that occurs when generalized concepts such as job satisfaction or organizational commitment are used.

*6.2 Implications for Practice*

We believe there are two important suggestions are apparent for HRD practitioners. Practitioners should consider: (a) including intention items in their engagement surveys, morale surveys, or organizational climate surveys to increase the accuracy of organizational diagnosis and (b) incorporating some model of explanation as to the formation of commitment or engagement (e.g., Zigarmi et al., 2009) to increase the application of data they collect.

6.2.1 Organizational Diagnosis

Often times, the construction of a purchased survey or the development of an internal survey does not make a distinction between descriptive, evaluative, and intention items. As a result, there is a high amount of inference and blurring that occurs in many of the organizational data gathering attempts. Inference and blurring diminishes survey effectiveness and the good intentions that prompted the effort. To infer engagement from a measured level of satisfaction or from a level of affective commitment may be misleading. If an employee is satisfied or even highly satisfied is not a reason to infer that they may be interested in endorsing the leadership of the organization, interested in using discretionary time in behalf of the organization or even remaining with the organization any longer than they have to.

We would like to see organizational executives judge the quality of their leadership and personal concern for their employees by examining not only the affect or emotions that is generated by the organizational environment and their leadership but by the general intentions employees may have to endorse the organization, use discretionary effort on behalf of the organization, remain with the organization, perform at a higher than average level and be an organizational citizen. Assuming for a moment, that intention is reasonably predictive of behavior, assessing those intentions would be more logical than inferring.

6.2.2 Incorporation of a Model

While the presentation of this article has focused on a social cognitive model presented by Zigarmi, et al., (2011), there are several models that could be drawn upon when looking for explanations of how people become "fully present" at their work site (e.g. James & James, 1989; Vallerand, 2008; Wofford, 1994). What **is** important is *the examination and use of a reasoned understanding of how people become engaged or passionate* about their work. How someone becomes committed, engaged, or passionate about their work informs the HR professional, as they try to "move the needle".

A model that explains how an individual becomes engaged or passionate about their work is a constant reminder to leaders and practitioners. Strategic and operational leaders cannot directly truly motivate, as much as they can create an environment where if an employee so chooses, they can motivate themselves. Employee intentions are the bi-products of appraisals, based on perceptions of organization and job factors. Operational and strategic leaders

must be focused on the job and organizational environmental factors that influence employee perception and the resultant formation of intention. A true leader does not buy employee engagement or work passion as much as they shape it, encourage it, and serve it.

*6.3 Limitations*

We note three basic limitations of the instrument at this time. In particular, the study presented: (a) findings based on a non-probability sampling method, (b) limited evidence of concurrent validity, and (c) no test-retest procedures to establish reliability over time.

6.3.1 Sample

The volunteer sampling method used in this study was convenient, comprised of employees who had access to a computer, and who were associated with one international management training and consulting company. As such, the sample may suffer from selection bias. Future research should examine the validity of the WII for defined populations with the use of probability sampling techniques. It would also add to the body of knowledge of the WII to test for measurement invariance to determine if the construct validity held across sub-populations (e.g., gender, industry, and ethnicity) (cf. Nimon & Reio, 2011).

6.3.2 Convergent Validity

Evidence of convergent validity presented in this paper was limited to correlating scale scores to scores from validity scales and measures of work cognition. As such, we can make no claims regarding its convergent validity with other constructs in the employee work passion modeling including work affect and employee well-being.

6.3.2 Test Retest Reliability.

The stability of the survey is usually assessed by correlating matched responses from two or more administrations of the instrument over a designated span of time. Without this test, we provide no evidence of internal consistency of scales scores across time.

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**Notes**

Note 1. Complete tables of pattern and structure coefficients and factor correlations are available from the second author.

Note 2. In further work on instrument, we found that two of the WII's items are somewhat similar to items in other published instruments. Item 3 of the WII Intent to Perform scale is similar to an item in the organizational commitment scale developed for and used in the 1991 Gen. Social Survey (Mardsen, Kallenberg, & Cook, 1993, p. 376). Item 4 of the WII Intent to Stay scale is somewhat similar to an item associated with the Workforce Commitment Index (see Stum, 1998). Although overlap may exist between these two items, the two WII items respectively support our operational definition of the WII *intent to perform* and the WII *intent to stay* scales.

Table 1. Reliability (α) and Validity (r) Coefficients for Study 2 (n = 261)

| WII Scale | α | $r_{Altruism}$ | $r_{LB}$ | $r_{IRB}$ | $r_{ITL}$ | $r_{DE}$ |
|---|---|---|---|---|---|---|
| Intent to Use OCBs | .93 | .51 | .55 | .48 | -.18 | .49 |
| Intent to Endorse | .96 | .36 | .79 | .39 | -.48 | .42 |
| Intent to Perform | .95 | .45 | .43 | .48 | -.20 | .45 |
| Intent to Stay | .87 | .28 | .57 | .21 | -.59 | .40 |
| Intent to Use Discretionary Effort | .88 | .43 | .50 | .32 | -.20 | .57 |

*Note.* αs for Altruism, LB, IRB, ITL, and DE are respectively .86, .92, .74, .71, and .83

Table 2. Validity Coefficients Corrected for Attenuation ($r_c$) for Study 2 (n = 261)

| WII Scale | $rc_{Altruism}$ | $rc_{LB}$ | $rc_{IRB}$ | $rc_{ITL}$ | $rc_{DE}$ |
|---|---|---|---|---|---|
| Intent to Use OCBs | .57 | .59 | .58 | -.22 | .56 |
| Intent to Endorse | .40 | .84 | .46 | -.58 | .47 |
| Intent to Perform | .50 | .46 | .57 | -.24 | .51 |
| Intent to Stay | .32 | .64 | .26 | -.75 | .47 |
| Intent to Use Discretionary Effort | .49 | .56 | .40 | -.25 | .67 |

Table 3. Corrected Correlations (r) of WCI Scales to WII scales and Validity Scales for Study 2 (n = 261)

| WCI | α | IDE | DE | $\Delta r^2$ | IPr | IRB | $\Delta r^2$ | IEE | EE | $\Delta r^2$ | IOCB | Alt | $\Delta r^2$ | ITS | ITL | $\Delta r^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Job | .77 | .60 | .40 | **.19** | .48 | .32 | **.12** | .60 | .56 | .05 | .52 | .34 | **.15** | .60 | -.34 | **.24** |
| Org | .88 | .50 | .32 | **.15** | .42 | .22 | **.13** | .59 | .53 | .07 | .44 | .25 | **.13** | .65 | -.46 | **.21** |

*Note.*Correlations practically significantly different ($\Delta r^2 \geq$ .08) are bolded.

Table 4. Corrected Correlations ($r_c$) of WCI Scales to WII scales and Validity Scales for Study 2 (n = 261)

| WCI | IDE | DE | $\Delta r^2$ | IPr | IRB | $\Delta r^2$ | IEE | EE | $\Delta r^2$ | IOCB | Alt | $\Delta r^2$ | ITS | ITL | $\Delta r^2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Job | .72 | .50 | **.22** | .56 | .43 | **.13** | .70 | .66 | .05 | .61 | .42 | **.20** | .73 | -.46 | **.32** |
| Org | .56 | .37 | **.18** | .46 | .27 | **.13** | .64 | .59 | .07 | .48 | .29 | **.15** | .74 | -.58 | **.22** |

*Note.* Correlations practically significantly different ($\Delta r^2 \geq$ .08) are bolded. IDE, IPr, IEE, IOCB, and ITS = WII scales of intent to use discretionary effort, perform, endorse, use OCBs, and stay. DE, IRB, EE, Alt, and ITL = validity scales of discretionary effort, in-role behaviors, employee endorsement, altruism, and intent to leave.

**Appendix: Work Intention Inventory (WII)**

Intent to Use Discretionary Effort

1. I intend to propose innovative solutions at work.
2. I intend to volunteer for things that may not be a part of my job.
3. I intend to put in overtime without being paid or asked to do so.
4. I intend to take home work when I know it will make me more effective the next day.
5. I intend to spend my discretionary time finding information that will help this organization.

Intent to Perform

1. I intend to exert the energy it takes to do my job well.
2. I intend to provide the best service I can do my internal/extern customers.
3. I intend to work efficiently to help this organization succeed.
4. I intend to do my job well.
5. I intend to achieve all of my work goals.

Intent to Endorse

1. I intend to talk positively about this organization to my family or friends.
2. I intend to encourage people to do business with this organization.
3. I intend to speak out to project the reputation of this organization.
4. I intend to encourage others to stay in the organization.
5. I intend to talk positively about the leadership in this organization.

Intent to Stay

1. I do not intend to update my resume any time soon.
2. I intend to take almost any job offered to me in order to continue working for this organization.
3. I intend to continue to work here because I believe it is the best decision for me.
4. I intend to stay with the organization even if I were offered a similar job with slightly higher pay elsewhere.
5. I intend to stay with the organization even if I were offered a more appealing job with the same pay elsewhere.

Intent to Be an Organizational Citizen

1. I intend to support my fellow workers when I have an opportunity.
2. I intend to respect this organization's assets.
3. I intend to consider the impact of my actions on others in this organization.
4. I intend to watch out for the welfare of others at work.
5. I intend to be sensitive about difficult issues at work.