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Pulling back the curtain: Modeling the motivational process underlying the contemporary engagement concept

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PULLING BACK THE CURTAIN: MODELING THE
MOTIVATIONAL PROCESS UNDERLYING THE CONTEMPORARY
ENGAGEMENT CONCEPT

A Dissertation
Presented in
Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

BY
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March, 2010

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VITA

The author was born in Colorado Springs, Colorado on November 28, 1980. He graduated from Thornton High School in Thornton, Colorado and received his Bachelor of Arts degree in Psychology from Gordon College in Wenham, Massachusetts. He is currently employed in the field of Learning and Organizational Development, working to apply principles of Industrial and Organizational Psychology to the development and implementation of human resource processes aimed at improving job engagement and job performance within his organization.

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CHAPTER I

INTRODUCTION

It is now a virtual axiom that engagement is not job satisfaction (Hallberg & Schaufeli, 2006; 2002; Kahn, 1990; Macey & Schneider, 2008; Maslach et al., 2001; Schaufeli et al., 2002). Human resource consulting firms that publish and market engagement surveys as replacements for previous job satisfaction surveys are quick to follow this statement with the claim that measures of engagement are better predictors of job performance and organizational effectiveness (Avery et al., 2007; Blizzard, 2004). Unfortunately, this statement also captures the extent of contemporary agreement on engagement. Publishers of engagement surveys and researchers interested in engagement differ considerably on a whole host of issues beginning with what engagement is, to how it should be measured, to why it should even be a predictor of job performance or organizational effectiveness in the first place (Macey & Schneider, 2008).

An underlying assumption of this research is that researchers and practitioners have captured something of importance in the concept of engagement. Engagement surveys, for example, have been shown repeatedly to be effective predictors of job performance and other important organizational outcomes (Harter & Schmidt, 2008; Macey & Schneider, 2008; Wellins, Bernthal, & Phelps, 2005). However, there is clearly a need for a unifying description of the engagement concept. The purpose of this research is to clearly define, operationalize, and model the construct that best represents what researchers and practitioners intend today when they use the term “engagement.” Specifically, the

purpose of this research is to make five unique contributions to the current discussion of the engagement concept: 1) identify the primary sources of confusion surrounding the contemporary engagement concept and summarize current areas of agreement; 2) identify the nomological network of engagement; 3) describe the relationship between engagement, motivation, and performance in order to provide a more complete definition of engagement 4) present a new theoretical model of the engagement process; and 5) empirically test components of the new engagement model.

Contemporary Sources of Confusion in the Engagement Concept

Engagement is a new construct in comparison to the related constructs of job satisfaction and organizational commitment (Avery et al., 2007). The engagement concept initially grew out of studies of burnout among social workers where it was proposed, in a move toward positive psychology, as the theoretical opposite of burnout (Kahn, 1990). Within the applied domain, engagement surveys have been marketed by Human Resource (HR) consulting firms as a tool for improving human performance, retention, and organizational effectiveness, with mainstream academic researchers in the field of Industrial/Organizational Psychology having only recently joined the discussion (Macey & Schneider, 2008). The result of these diverse roots is a concept with nearly as many definitions as there are research articles on the topic or firms to market an engagement survey.

In their recent review of engagement, Macey and Schneider (2008) suggested that the primary source of confusion on the topic is disagreement as to

whether engagement is a trait, a state, or a behavior. While this is certainly one reason for the current state of confusion, the comprehensive review of engagement conducted for the present research revealed several additional sources of confusion. These can be categorized into four general sources of confusion involving a lack of clarity in what will be termed the 1) nature, 2) variability, 3) target, and 4) level of the engagement construct. Nature refers to whether the engagement construct should be operationalized as cognition, affect, behavior, or some combination of all three. Variability refers to the degree of expected within-person variability of the construct and whether engagement operates as a short-term mood, a relatively more stable state, or a far more enduring trait. The target of engagement refers to the focus of the worker while a process of engagement occurs (i.e., with what or with whom is the person engaging). Finally, level refers to the question of whether engagement operates at the individual or collective (e.g., team, department, company) level of analysis.

Current approaches to engagement either fail to resolve these four sources of confusion or fail to address them all together. Table 1 below summarizes current approaches to the engagement concept, including the various definitions of engagement as well as the authors' apparent positions regarding each of the four primary sources of confusion on the engagement concept. The position of several authors was inferred from their definitions of engagement or other writings since it was common for authors to only briefly touch on these key points directly or to avoid them all together.

Table 1: Summary of Approaches to the Engagement Concept in the Extant Literature and the Applied Domain

Term Used	Definition (in quotes) or Summarization	Nature	Variability	Target	Level	Source
Personal Engagement	“Personal Engagement is the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional) and active, full performances” (p. 700).	Cognition, Affect, & Behavior	State	Task, Role, & co-workers	Individual	(Kahn, 1990)
Job Engagement	“An energetic state of involvement with personally fulfilling activities that enhance one’s sense of professional efficacy” (p. 498)	Cognition, & Affect	State	Job	Individual	(Maslach & Leiter, 2008)
Role Engagement	(Engagement) has two critical components – attention and absorption in a role – both of which are motivational.”	Cognition, & Affect	State	Role	Individual	(Rothbard, 2001)
Work Engagement	“A positive, fulfilling, work-related state of mind, characterized by vigor, dedication, and absorption” (p. 74).	Cognition, & Affect	Mood & State	Work	Individual	(Schaufeli et al., 2002)
Employee Engagement	Engagement is described as a meta construct combining Job satisfaction, Organizational commitment, job involvement, and psychological empowerment.	Cognition, Affect, & Behavior	State & Trait	Job	Individual	(Macey & Schneider, 2008)

Table 1: Summary of Approaches to the Engagement Concept in the Extant Literature and the Applied Domain continued

Term Used	Definition (in quotes) or Summarization	Nature	Variability	Target	Level	Source
Employee Engagement	“Employee Engagement is the behavioral provision of personal resources – time and energy – into one’s work role, and it can be specified as the higher order construct indicated by dependable covariation among several, valued work behaviors” (p. 34).	Behavior	State	Work Activities, & Role	Individual	(Newman & Harrison, 2008)
Employee Engagement	“State Engagement, with its strong affective component including positive affect, energy, absorption, and passion, can be viewed as similar to the idea of collective mood or group affective tone.”	Affect	Mood	Team Work	Collective	(Pugh & Dietz, 2008)
Employee Engagement	Engagement is a cognitive-affective construct involving the self-regulation of attention directed toward work tasks; with considerable day-to-day, and hour-to-hour within person variability in task absorption and energy.	Cognition, & Affect	Mood	Task	Individual	(Dalal, Brummel, Wee, & Thomas, 2008)
Employee Engagement	“The employee engagement concept (is) some combination (of) <i>affective commitment</i> (pride in the organization), <i>continuance commitment</i> (intentions to remain with the organization), and <i>discretionary effort</i> ” (p. 57).	Cognition, Affect, & Behavior	State	Role, & Organization	Individual	(Masson, Royal, Agnew, & Fine, 2008)

Table 1: Summary of Approaches to the Engagement Concept in the Extant Literature and the Applied Domain continued

Term Used	Definition (in quotes) or Summarization	Nature	Variability	Target	Level	Source
Employee Engagement	“The extent to which people value, enjoy, and believe in what they do” (p. 1).	Cognition, & Affect	State	Work	Individual & Collective	DDI (Wellins et al., 2005)
Engagement	Engagement is defined as the degree of “employees’ willingness and ability to contribute to company success.” Or as the “extent to which employees put discretionary effort into their work, in the form of extra time, brainpower and energy” (p. 3).	Cognition, & Behavior	State	Organization & Work	Individual & Collective	Towers Perrin (2003)
Purposeful Engagement	“The extent to which employees commit to something or someone in their organization, how hard employees work, and how long they stay as a result of that commitment” (p. 14).	Cognition, & Behavior	State	Organization & Work	Individual & Collective	Corporate Leadership Council (Ward, 2005)
Engagement	“Engaged employees are psychologically committed to their work, go above and beyond their basic job expectations, and want to play a key role in fulfilling the mission of their organizations” (p. 1)	Cognition, & Behavior	State	Job, Organization, & Work	Individual & Collective	Gallup (Blizzard, 2004)

Table 1 makes it clear that current approaches to engagement vary widely with regard to views on the nature, variability, target, and level of the engagement construct. Even the question of level, which is perhaps the least contentious, still requires additional consideration because the HR consulting firms listed in Table 1 (e.g., Gallup, Corporate Leadership Council, Development Dimensions International, and Towers Perrin) typically measure engagement at the individual level, but prefer to report the results at a work unit or organizational level in order to link engagement to bottom line results (Avery et al., 2007; Blizzard, 2004; Harrison et al., 2006; Towers Perrin, 2003; Wellins et al., 2005). Perhaps most importantly, the definitions of engagement provided in Table 1 vary widely and include mention of a range of related constructs, such as job satisfaction, organizational commitment and pride in the organization, job involvement, energy, and absorption. Finally, even the name of the concept itself varies between Job Engagement, Work Engagement, Personal Engagement, Employee Engagement, and simply Engagement, with some authors using these terms interchangeably.

The first goal of this research was to outline the primary sources of disagreement surrounding the engagement concept and organize the relevant academic and applied approaches within a simple framework to clarify the reasons for disagreement as well as the broader areas of agreement. Table 1 summarized the multiple approaches to engagement and demonstrated the need for greater clarity. The following discussion outlines in detail the contemporary approaches to engagement within the literature and applied domain and is

organized by the primary sources of confusion so that relevant approaches can be compared points of agreement can be identified regarding the nature, variability, target, and level of engagement.

The Nature of Engagement

The nature of engagement concerns whether the engagement construct should be modeled as cognition, affect, behavior, or some combination of all three. Table 1 included several authors who take the latter approach and describe engagement as a construct which includes components of all three (e.g., Kahn, 1990; Macey & Schneider, 2008; Masson et al., 2008). This is not entirely surprising since engagement has most often been approached as a job attitude (Macey & Schneider, 2008), which traditionally are thought to have cognitive, affective, and behavioral components (Fishbein & Ajzen, 1974). However, the question of nature is particularly important for engagement because the argument most often used in the applied domain as to why engagement should be a better predictor of job performance than job satisfaction is that engagement includes the behavioral component of discretionary effort (Blizzard, 2004; Macey & Schneider, 2008; Saks, 2008; Towers Perrin, 2003; Wellins et al., 2005). This approach takes engagement beyond a simple job attitude. Therefore, it will be important to clearly define the nature of the engagement construct, especially with regard to behavioral aspects.

While there appears to be a general consensus within the applied domain that engagement includes a behavioral component, there are several strong critiques of this approach among academic researchers. The primary critique of

viewing engagement as a combination of cognition, affect, and behaviors is that the approach only serves to “muddy the waters” of the engagement construct (e.g., Dalal et al., 2008; Saks, 2008; Vosburgh, 2008). These authors view behaviors such as discretionary effort as outcomes of engagement – rather than a component of the engagement construct – in the same way that turnover is an outcome of low levels of job satisfaction and organizational commitment. Dalal et al. (2008) noted that defining any construct by its antecedents or consequences is never preferable. In the same way as it would not be preferable to define organizational commitment as retention behaviors or the absence of turnover, it also may not be ideal to define engagement as discretionary effort. As a result of these and other concerns, researchers have proposed a variety of alternative approaches to defining and operationalizing engagement. Following is a summary of these approaches.

Engagement as Cognition. Avery et al. (2007) credits Kahn [e.g. (Kahn, 1990, 1992)] for being the first scholar to apply the engagement concept directly to the work domain. Kahn (1990) uses the term “personal engagement,” which involves the full expression of a personal sense of self to one’s work role. Kahn argues that people have dimensions of themselves which they prefer to express within the context of a work role and that the engaged worker will seek to express themselves physically, cognitively, and emotionally during role performance. When engagement occurs, Kahn (1990) describes this phenomenon as the act of being “fully present” at work, a concept described as a “focus on the present, on the here-and-now” as well as a “person’s aliveness to and in particular situations”

(p. 324). Thus, Kahn's (1990) approach places the two cognitions of personal involvement and conscious attention at the core of the engagement experience.

Rothbard (2001) expanded on Kahn's (1990, 1992) research, but used the term "role engagement" and argued that engagement is comprised of two critical components: absorption and attention. Absorption refers to a sense of being fully immersed in an activity, which can occur during an especially interesting or fun activity. A sense that time has passed quickly is evidence of high levels of absorption (Rothbard, 2001). Attention is related to absorption, but refers specifically to the degree of focus (i.e., attentional resources) one uses to complete a task. As the person focuses more attentional resources on a given task, the person is also expected to experience an increasingly greater sense of absorption in the task. The summation of this high attention and high absorption experience is what Rothbard (2001) labeled engagement. Rothbard (2001) also noted the conceptual link between the attention components of engagement and task motivation described in Goal Setting Theory (Locke & Latham, 1990). Specifically, Locke and Latham (2002) describe goals as serving "a directive function; they direct attention and effort toward goal-relevant activities" (p. 706). Thus, role engagement for Rothbard (2001) is theoretically linked to the cognitive motivational process of goal attainment involving the process of directing cognitive attentional resources toward task completion.

Perhaps the most thoroughly articulated approaches to engagement, including the cognitive components of engagement, were produced by Maslach and colleagues (e.g., Maslach & Jackson, 1981; Maslach & Leiter, 1997; Maslach

et al., 2001; Maslach & Leiter, 2008) and Schaufeli and colleagues (e.g., Hallberg & Schaufeli, 2006; Schaufeli, Bakker, & Salanova, 2006; Schaufeli et al., 2002). Maslach and Leiter (1997) specifically articulated engagement as the theoretical opposite of burnout. These authors included the cognitive components of self-efficacy and personal involvement within the engagement construct, arguing that “engagement is characterized by energy, involvement, and efficacy – the direct opposite of the burnout dimensions” (Maslach & Leiter, 1997, p. 416). Schaufeli and colleagues disagreed with the view of engagement as a direct opposite to burnout and instead approached engagement as an important construct in its own right. These authors defined engagement as “a positive, fulfilling, work-related state of mind, characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002, p. 74). However, for both sets of authors, engagement requires a cognitive/evaluative component in the form of self-efficacy for Maslach and Leiter (1997) and dedication to completing goals on the job for Schaufeli et al. (2002).

Macey and Schneider (2008) more recently presented engagement as a construct with a cognitive, an affective, and a behavioral component. These authors focused considerable attention on the cognitive/evaluative aspects of engagement and presented it as composite construct that includes job satisfaction (positive affect), organizational commitment (positive attachment to the organization), job involvement (task and job commitment), and psychological empowerment (feelings of self-efficacy, of control, and impact from one’s actions). Thus, for Macey and Schneider (2008), engagement is best described as

a type of meta-attitudinal construct similar to the trait based meta-construct of core self-evaluations (Judge & Bono, 2001; Judge, Erez, & Bono, 1998; Judge, Locke, & Durham, 1997).

In addition, researchers have also included the cognitive processes of self-regulation (Dalal et al., 2008), continuance commitment (Blizzard, 2004; Masson et al., 2008; Ward, 2005), value and belief in the significance of work (Wellins et al., 2005), and willingness to contribute to work (Towers Perrin, 2003) within the engagement construct. It is clear that the cognitive component of engagement is well established in the literature with a focus on the conscious evaluative aspects of cognitive thought.

Engagement as Affect. Among the authors discussed above who focus on the cognitive components of engagement, it is interesting to note that none view engagement as purely a cognitive construct. In fact, there appears to be general agreement that engagement has both cognitive and affective components (e.g., Avery et al., 2007; Dalal et al., 2008; Macey & Schneider, 2008; Maslach & Leiter, 1997; Masson et al., 2008; Schaufeli et al., 2006; Wellins et al., 2005). For example, Masson et al. (2008) argues that engagement includes “affective commitment,” or a sense of pride in the organization and willingness to recommend the organization to others as an employer. This is the aspect of organizational commitment that has also been referred to as the “want” form of commitment because it includes a positive affective/emotional component (Meyer et al., 2002). Macey and Schneider (2008) included the component of job satisfaction within their engagement construct, which has a largely affective

component. Other proposed affective components of engagement discussed in the literature include a sense of positive affect while engaging in work (Pugh & Dietz, 2008), a sense of enjoyment at work (Wellins et al., 2005), a sense of significance, enthusiasm, and pride for one's work (Schaufeli et al., 2002), as well as a sense of inspiration and affirmation on the job (Towers Perrin, 2003). But perhaps the most important affective component of engagement described in the literature is a sense of absorption.

Schaufeli et al. (2002) defined absorption as the condition of “fully concentrating on and being deeply engrossed in one's work, where time passes quickly and one has difficulty detaching oneself from work” (Schaufeli et al., 2002, p. 166). Thus, absorption has a cognitive component, but can also be characterized by an emotional experience. Rothbard (2001) included absorption in her definition of “role engagement” and, along with Kahn (1990; 1992), notes that absorption is conceptually related to psychological flow, which has been defined as “the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it” (Csikszentmihalyi, 1990, p. 4). Hallberg and Schaufeli (2006) also note the connection between flow and the aspects of engagement described in the health psychology literature as “optimal functioning.” However, for Hallberg and Schaufeli (2006), engagement is expected to be more stable an experience than flow, which is a description of peak experience lasting only a short time. Engagement is instead thought to be characterized by a more enduring sense of energy towards one's job over time,

but still possessing similar affective components (Hallberg & Schaufeli, 2006). Therefore, there is a solid consensus in the literature and within the applied domain that engagement has an affective component.

Engagement as Behavior. As mentioned above, the connection between the engagement concept and behaviors is stressed most often in the applied domain where the inclusion of discretionary effort is marketed as the primary reason why engagement is a better predictor of job performance than job satisfaction (Newman & Harrison, 2008). For example, the Gallup organization defines engaged employees as those who are “psychologically committed to their work, go above and beyond their basic job expectations, and want to play a key role in fulfilling the mission of their organizations” (Blizzard, 2004, p.1). Similarly, the Corporate Leadership Council (CLC) defines engagement as, “The extent to which employees commit to something or someone in their organization, how hard employees work, and how long they stay as a result of that commitment” (Ward, 2005, p. 14). This focus on behaviors is not surprising within the applied domain where the goal is often more to predict and impact organizational outcomes than it is to explain the underlying nature of a construct. This has created some obvious issues from a scientific perspective with the two definitions presented above being classic cases of “muddying the waters” and defining far too many types of phenomena within the single construct. However, at this point it is enough to point out the precedent within the applied domain of including behaviors as a component of the engagement construct.

More interesting is the tendency for applied approaches to focus only on extra-role or discretionary behaviors. These behaviors include any actions considered useful to an organization, but not required to meet the minimal job requirements. In defining engagement, Gallup uses the language “go above and beyond their basic job expectations” when describing engagement, which is the typical definition of what is commonly referred to as “discretionary effort” within the applied domain (Blizzard, 2004). The Corporate Leadership Council includes the statement “how hard employees work” in its definition of engagement, which placed a special focus on the degree of effort given by a worker. There are challenges to this approach even among those focused heavily on the applied domain. Macey and Schneider (2008), who are associated with the HR consulting firm Valtera, noted several issues in defining engagement behaviors as “extra” or “discretionary.” First, effort is not easily defined. Second, extra effort may simply mean more of the same behaviors, when the focus should be on new or different behaviors. Third, understanding what is meant by “extra” requires a definition of a minimally acceptable standard, which is also hard to define. Fourth, discretionary effort has ambiguous boundary conditions that continue to shift across situations, which limits the usefulness of the term. Most importantly, there is the question of whether engagement should even be limited to discretionary effort. Why do engagement behaviors have to be something “extra” or “discretionary?” Is it reasonable to classify the effort required to meet minimal job requirements as outside the realm of engagement? In an analogous line of thinking, does it make sense to classify the fuel required to accelerate an

automobile from zero to forty miles an hour as a different substance than the fuel required to accelerate the car from forty up to sixty miles an hour? Why not measure effort as a single continuous variable?

The above discussion summarized two significant issues with current applied approaches to including behaviors within the engagement construct. First, including behaviors may simply be a case of confusing a construct with its outcomes. Second, focusing only on discretionary effort causes the engagement construct to be more difficult to measure and may improperly exclude non-discretionary forms of effort. Macey and Schneider (2008) offer some degree of clarification to these issues by defining three types of engagement: trait, state, and behavioral (rather than using the term to mean all three). Additionally, these authors attempt to expand the notion of discretionary effort by defining behavioral engagement as inclusive of “innovative behaviors, demonstrations of initiative, proactively seeking opportunities to contribute, and going beyond what is, within specific frames, typically expected or required” (p. 15). The authors view behavioral engagement as inclusive of organizational citizenship behaviors (Organ, 1997) and contextual performance (Borman & Motowidlo, 1993), as well as prosocial behaviors and organizational spontaneity (Organ, Podsakoff, & MacKenzie, 2006). In addition, Macey and Schneider (2008) include role expansion and proactive behavior (Crank, 1995) as well as personal initiative (Frese & Fay, 2001) as highly related concepts to their presentation of engagement as behaviors. It is questionable as to whether Macey and Schneider’s (2008) approach brings greater clarity to the engagement discussion, but their

increased attention to scientific principles and their attempts to link engagement to better established concepts such as contextual performance is certainly noteworthy.

A different and perhaps more direct solution to these issues is provided by Newman and Harrison (2008) who simply define engagement as behaviors. For these authors, engagement is simply “the behavioral provision of personal resources – time and energy – into one’s work role” (p. 34). This includes a worker’s entire work role, not only extra-role or discretionary behaviors. For these authors, engagement is a behavioral state in the form of expending mental and physical effort at work. More specifically, since work roles include some form of behavioral expectations usually in the form of work goals (either explicit or implicit), Newman and Harrison’s (2008) view of engagement appears to be describing a set of goal-directed work behaviors. This has the potential to be a useful conceptualization for engagement since it clearly distinguishes engagement from job attitudes (which would be theoretical antecedents to these goal-directed work behaviors) and from job performance (which would be a measure of value added by the goal-directed work behaviors). Regarding the latter point, Motowidlo (2003) defines job performance as, “the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time” (p. 39). In this framework, engagement could very well be defined as discrete goal-directed behavioral episodes that an individual carries out within his or her job. Performance can alternatively be defined as the measure of the total expected value of a person’s engagement in his or her job. To the

extent the worker is highly skilled, his or her behaviors can be expected to add more value and result in higher levels of job performance. Thus, engagement plus skill should lead to job performance in this view.

In conclusion, there are two general approaches to operationalizing engagement as behaviors. The simplest approach, expressed by Newman and Harrison (2008), is to argue that engagement is purely behavioral in nature and expressed as goal-directed behaviors on the job. However, this is clearly not the prevailing view in the literature. Far more common among contemporary approaches to engagement is to hold the second view, which is to operationalize engagement as a construct that includes cognitive, affective, and behavioral components. This approach is generally consistent with the view that engagement is a type of job attitude (c.f. Fishbein & Ajzen, 1974). At this point a clearer understanding is needed regarding the degree of within person variability of the engagement construct. The following discussion will consider the question of variability and whether engagement is a trait, state, or mood.

The Variability of Engagement

The variability of engagement concerns the question of whether the engagement construct should be modeled as a trait, state, mood, or some combination of these approaches. The answer to this question depends upon the expected within-person variability of the engagement construct. Of the four primary sources of disagreement (i.e., nature, variability, target, and level), the existing literature has discussed the aspect of variability in the greatest detail. This is not to say that the variability of engagement is clear, only that much has been

written about this topic. A review of Table 1 will show that the most common approach to operationalizing the variability of engagement is as a state. This is generally consistent with the prevailing view that the nature of engagement is a type of job attitude with cognitive, affective, and behavioral components. It is common to operationalize job attitude constructs such as job satisfaction and organizational commitment as states (Fishbein & Ajzen, 1974; Macey & Schneider, 2008; Weiss et al., 1999). However, there are approaches presented in the literature of engagement as both mood and trait. The following discusses begins with the least common approach to engagement as a trait and progresses toward the most common view of engagement as a state-based construct.

Trait engagement. Macey and Schneider (2008) provide a broad conceptualization of engagement as a trait, state, and behavior. These authors primarily view engagement as a state, but also discuss a possible trait based form of engagement as encompassed within the broader engagement construct. The authors appropriately differentiate between the trait and state forms of engagement based on the relative degree of variability between the two. For Macey and Schneider (2008), the trait based aspects of engagement include those aspects of a person with relatively low levels of within person variance, including positive affectivity (c.f. Tellegen, Watson, & Clark, 1999), conscientiousness (Costa & McCrae, 1988), proactive personality (Crant, 2000), and autotelic personality (Nakamura & Csikszentmihalyi, 2002).

Hirschfeld and Thomas (2008), in their commentary on Macey and Schneider's (2008) article, agreed with the general premise that there is a trait

based component of engagement. These authors also include autotelic personality and proactive personality in their view of engagement, but add the trait of agentic orientation, which is “an emphasis on achieving, doing, succeeding, and making one’s own mark in the world” (Hirschfeld & Thomas, 2008, p. 63). Agentic orientation is closely related to trait based competitiveness, self-focus, achievement striving, and dependability. Finally, these authors include other partially related traits in the overall engagement construct, such as trait-based learning-goal orientation and intrinsic motivational orientation toward one’s work. Overall, the picture of engagement that forms is that of a meta-trait based construct characterized by a general sense of confidence and desire to achieve in one’s work.

Dalal et al. (2008) critiqued Macey and Schneider’s (2008) approach as a case of improperly defining a construct by its antecedents and argue that engagement is better thought of as a state which is heavily influenced by the trait based constructs identified by Macey and Schneider (2008). This critique can be equally applied to Hirschfeld and Thomas (2008). In addition, no other researchers have proposed a view of engagement as a trait based construct and contemporary practitioners are generally opposed to the notion that engagement is a trait because most argue that engagement can be manipulated with actions taken by management. At the very heart of the marketing effort of engagement surveys is the idea that action can be taken to improve levels of engagement, which should not be possible or should at least be severely limited if engagement is a stable trait. Thus, while there have been approaches to engagement as a trait, the general

consensus appears to be that engagement is a construct with greater within-person variability that is influenced by trait-based antecedents.

Engagement as a mood. Viewing engagement as a mood requires that one place a high degree of emphasis on proximal environmental factors as the primary antecedents of engagement. One is also predicting a relatively high degree of within-person variation on the degree of engagement over the near term. While there is not a set standard within the literature on the degree of within-person variation necessary to constitute a mood, there is a general consensus that measures of moods show significant variation in as little as a few hours and almost certainly after one week. For example, Weiss et al. (1999) measured workers' experienced levels of pleasantness four times a day over a three week period and found a high level of fluctuation in the measure throughout the work day. A similar approach was taken by Larsen and Kasimatis (1990) who took measures once a day of a variety of common moods such as feeling happy, pleasant, or joyful. These authors also found a significant level of daily fluctuation in their measures of moods. These approaches to measuring moods can be contrasted with measures of more enduring states such as job satisfaction, which Weiss et al. (1999) measured one time at the end of their study because of its expected degree of stability across the same period of time that moods were shown to fluctuate.

Within the engagement literature, Schaufeli and colleagues come the closest to describing engagement as a mood by placing absorption as a core component within their engagement construct (Schaufeli et al., 2006; Schaufeli et

al., 2002). As noted in the discussion above on the nature of engagement, absorption has been compared with the peak experiences of “flow” in which the person experiences a high degree of focus on work and the rapid passage of time (Hallberg & Schaufeli, 2006). The phrase “rapid passage of time” in this literature always refers to moments of time within the work day, and often no longer than a few hours in length. Consistent with this approach, two of the items used to measure the absorption component of engagement in the Utrecht Work Engagement Scale (UWES) are, “Time flies when I am working” and “When I am working, I forget everything else around me” (Hallberg & Schaufeli, 2006; Salanova et al., 2005). Clearly, the approach taken by the UWES measures the absorption component of engagement as a short-term mood, which can be expected to fluctuate throughout a workday. Even though the items are phrased to capture a broader evaluative judgment of whether time in general passes quickly, the focus of the items are on the experience of absorption within a given day.

In addition to absorption, Schaufeli et al. (2002) list “dedication” and “vigor” (energy) as components of their engagement construct. These authors approach vigor in a similar manner to absorption as a short-term, affective experience. For example, items measuring vigor on the UWES include, “At work, I feel full of energy” and “When I get up in the morning, I feel like going to work” (Salanova et al., 2005; Schaufeli et al., 2002). For these authors, vigor, or a sense of energy at work, is also a short-term mood that characterizes the overall engagement construct. Interestingly, these authors do not approach “dedication” (the third component) in the same way. The five items on the UWES measuring

dedication include, “I find the work I do full of meaning and purpose,” “I am enthusiastic about my job,” “My job inspires me,” “I am proud of the work I do,” and “I find my job challenging” (Salanova et al., 2005). These are clearly more global cognitive evaluative statements about one’s job. To answer the question “Do I feel full of energy at work?” one must think of instances at work when one experiences energy and then simply aggregate these instances into a broader judgment of whether this occurred often overall. On the other hand, to answer the question, “Am I proud of the work I do?” one does not need to think of a time when they felt proud, one can simply answer whether they are feeling a general sense of pride about one’s work. The second item focuses on a more general cognitive evaluative state, while the first item focuses on an affective mood experience that happens in any given work day. Another key difference is that the cognitive evaluative state (e.g., pride in one’s job) can be experienced whether or not one is at work, whereas the affective mood (e.g., energy to complete work) is only experienced while at work.

Schaufeli et al.’s (2002) solution for reconciling the three components of dedication, vigor, and absorption into the overall engagement construct is to define engagement as, “A positive, fulfilling, work-related state of mind, characterized by vigor, dedication, and absorption.” Thus, for these authors engagement occurs because a person experiences a series of affective moods while at work and over time these experiences form an overall state of mind that is best described as engagement. To the degree to which this state of mind is positive regarding work and characterized by a sense of vigor, absorption, and

dedication, the person can be said to be engaged with his or her work. So ultimately, even these authors characterize engagement as a relatively more enduring state, but one which is heavily influenced and is characterized by a series of affective mood-based experiences. The discussion below suggests that most researchers and practitioners view engagement as a state-based construct while acknowledging some form of affective mood that is a component of engagement. A possible solution to these disparate viewpoints will be presented after the discussion of the target of engagement.

State Engagement. Table 1 makes it clear that the most common approach to describing the variability of engagement is as a state-based construct. In general, state-based constructs can be expected to remain relatively stable over the period of several weeks or months, with a maximum duration of several years. This can be distinguished from a mood based construct and a trait based construct with the former expected to have far greater within person variability, remaining stable over the course of just a few hours and at most not much more than a week, and a trait based construct having far greater within person stability over the course of many years and even most of one's adult life.

Organizational commitment presents a good example of how a state-based construct is typically defined within the literature (Meyer et al., 2002). A person's level of commitment to their organization can be expected to be highly influenced by external events such as a change in working conditions or pay, which makes organizational commitment much less stable than a trait such as extroversion or need for achievement. At the same time, a person's commitment to their

organization should be far more stable than a short-term mood. This is best seen in the form of commitment termed “continuance commitment” which denotes a state of committing to one’s organization not because one wants to (or feels they ought to) remain with the organization, but because one believes one must remain with the organization to avoid a perceived greater cost in leaving the organization (Meyer et al., 2002). Continuance commitment results when a worker believes he or she cannot find a better job somewhere else. It is possible for this commitment to last an extended period of time if the worker perceived he or she has few alternatives for work, during which time the worker’s short term moods would have shifted countless numbers of times.

Many of the researchers and practitioners interested in engagement have thought about the construct in a similar way to this description of organizational commitment. Macey and Schneider (2008) conceptualized their version of state engagement as a meta-construct comprised of job satisfaction, organizational commitment, job involvement, and psychological empowerment. Consistent with this approach, these authors expected the within-person variability of engagement to be more stable than a short-term mood, but far less stable than an enduring trait. Maslach and colleagues (e.g., Maslach & Jackson, 1981; Maslach & Leiter, 1997; Maslach et al., 2001) similarly view engagement as a state-based construct defined as the opposite end of the continuum of the state of burnout, which is characterized by an ongoing sense of exhaustion, cynicism, and ineffectiveness at work. Like organizational commitment and job satisfaction, burnout has affective components that appear more as moods, but in general it manifests itself more

broadly and is expected to be relatively stable over time (i.e., a worker does not experience burnout one hour and engagement the next). In a typical burnout scenario, a period of several weeks, if not years, coupled with an extended series of negative work experiences must occur before a worker begins to experience the condition of burnout. The same degree of variability is expected of state engagement.

There appears to be a general consensus among researchers and practitioners that once workers become highly engaged they will remain engaged for a minimum of several weeks, if not months, or even years (Avery et al., 2007; Blizzard, 2004; Harrison et al., 2006; Harter & Schmidt, 2008; Macey & Schneider, 2008; Masson et al., 2008; Newman & Harrison, 2008; Saks, 2008; Towers Perrin, 2003; Wellins et al., 2005). Again, this is consistent with how job attitudes are conceptualized. For example, job satisfaction is not conceptualized as a momentary evaluation or affective reaction to one's job, but rather a relatively stable general evaluation of one's job based on a series of experiences over time (Weiss, 2002; Weiss et al., 1999). Similarly, state engagement is expected to form over time as a result of a series of energizing and invigorating experiences at work.

In summary, engagement is most commonly viewed as a state-based construct with relatively stable levels of within-person variability over time periods ranging from a few weeks to several years. There is also considerable support for describing aspects of engagement as a short-term mood characterized by heightened energy, increased attention on tasks, and a sense of absorption.

Finally, recent approaches to engagement have considered possible trait based aspects of the construct. With regard to the trait based approaches to engagement, this research will take the same position advocated by Dalal et al. (2008) that the traits in question (e.g., autotelic personality) are best thought of as possible antecedents rather than components of the construct and to include traits as part of engagement is an act of confusing the construct with its antecedents. This research views both approaches to engagement as a mood- or as a state-based construct as reasonable ways to operationalize engagement, but will argue that the choice should depend primarily on what one views as the target of engagement, which is discussed next.

The Target of Engagement

The target of engagement refers to the focus of the engagement construct, such as a task, a work activity, work role, a job, an organization, a customer, or even a career. While much has been written on the issues of nature and variability, there has been a relative paucity of thought dedicated to the question of the target of engagement. The unfortunate result, which is displayed in Table 1, is a range of alternative viewpoints within the engagement literature and the applied domain on this topic. What is perhaps most surprising is that the question of target is not at all a trivial point since the term engagement clearly implies something engaging with something else; engagement cannot occur in a vacuum. Certainly the first “something” is a person; all researchers and practitioners implicitly agree with this point. Therefore, the target of engagement that must be identified is the

primary thing or person with which or with whom the worker engages while he or she is at work.

In order to resolve the current lack of consensus in the literature and applied domain this research considered what HR consulting firms, business leaders, and academics are trying to describe when they collectively use the term “engagement.” It appeared that the best way to identify to target of engagement was to focus on how it is typically being measured in the academic and applied domains today. The primary instrument used in academic settings is the Utrecht Work Engagement Scale (UWES) (Avery et al., 2007; Hallberg & Schaufeli, 2006; Salanova et al., 2005; Schaufeli et al., 2006). Engagement is typically measured in the applied domain using a wide range of survey items focused on key aspects of the work environment expected to impact levels of employee engagement (Salanova et al., 2005). A typical engagement survey involves an annual or biannual administration to all of the company’s employees. Over the following months, reports are distributed to unit managers who create action plans to address and improve one or more aspects of their units work environment to drive subsequent increases in employee engagement and ultimately improvements in the work unit’s performance overall (Avery et al., 2007; Blizzard, 2004; Towers Perrin, 2003; Wellins et al., 2005).

What is clear is that there is no uniformly accepted scale used to measure the engagement construct today. Table 2 provides a list of items used to measure engagement taken from the UWES and several prominent applied engagement surveys.

Table 2: Survey Items Used to Measure Engagement

Name of Measure and Items	Source
Utrecht Work Engagement Scale	(Salanova et al., 2005)
Vigor	
<ol style="list-style-type: none"> 1. At work, I feel full of energy. 2. In my job, I feel strong and vigorous. 3. When I get up in the morning, I feel like going to work. 4. I can continue working for very long periods at a time. 5. In my job, I am mentally very resilient. 6. At work, I always persevere, even when things do not go well. 	
Dedication	
<ol style="list-style-type: none"> 1. I find the work that I do full of meaning and purpose. 2. I am enthusiastic about my job. 3. My job inspires me. 4. I am proud of the work I do. 5. I find my job challenging. 	
Absorption	
<ol style="list-style-type: none"> 1. Time flies when I'm working. 2. When I am working, I forget everything else around me. 3. I feel happy when I am working intensely. 4. I am immersed in my work. 5. I get carried away when I'm working. 6. It is difficult to detach myself from my job. 	
Towers Perrin	(Towers Perrin, 2003)
<ol style="list-style-type: none"> 1. I really care about the future of my company 2. I am proud to work for my company 3. I have a sense of personal accomplishment from my job 4. I would say my company is a good place to work 5. My company inspires me to do my best work 6. I understand how my unit/department contributes to company success 7. I understand how my role relates to company goals and objectives 8. I am personally motivated to help my company succeed 9. I am willing to put in a great deal of effort beyond what is normally expected 	

Table 2: Survey Items Used to Measure Engagement continued

Name of Measure and Items	Source
Corporate Leadership Council	(Ward, 2005)
Emotional Commitment (component of Engagement)	
1. I believe in what I do every day at work	
2. I enjoy working with my team	
3. When speaking to others, I speak highly of my supervisor	
4. I am proud to work for my organization	
Rational Commitment (component of Engagement)	
1. The best way for me to develop my skills in my organization right now is to stay with my current team	
2. The best way for me to advance in this organization is to stay with my current supervisor	
3. The best way for me to advance my career is to stay with my current organization	
4. My performance would suffer if I worked with any other team in my organization	
DDI E3 [®]	(Wellins et al., 2005)
Align Efforts with Strategy (component of Engagement)	
1. Overall, I have a good understanding of what I am supposed to be doing in my job.	
2. I am kept well-informed about changes in the organization that affect my work group.	
3. My work group makes efficient use of its resources, time, and budget.	
4. In my work group, meetings are focused and efficient.	
5. In my work group, people are held accountable for low performance.	
Empower (component of Engagement)	
1. I can make meaningful decisions about how I do my job.	
2. I find personal meaning and fulfillment in my work.	
Promote and Encourage Teamwork and Collaboration (component of Engagement)	
1. People in my work group cooperate with each other to get the job done.	
2. In this organization, different work groups reach to help and support each other.	
3. People in my work group quickly resolve conflicts when they arise.	
4. People trust each other in my work group.	

Table 2: Survey Items Used to Measure Engagement continued

Name of Measure and Items	Source
DDI E3 [®] continued	(Wellins et al., 2005)
Help People Grow and Develop (component of Engagement) <ol style="list-style-type: none"> 1. My job provides me with changes to grow and develop. 2. In my workgroup, people try to pick up new skills and knowledge. 3. In my workgroup, people are assigned tasks that allow them to use their best skills. 	
Provide Support and Recognition Where Appropriate (component of Engagement) <ol style="list-style-type: none"> 1. In my workgroup, my ideas and opinions are appreciated. 2. I get sufficient feedback about how well I am doing. 3. People in my work group understand and respect the things that make me unique. 	
Gallup Q ¹² TM	(Avery et al., 2007)
<ol style="list-style-type: none"> 1. I know what is expected of me at work. 2. I have the materials and equipment I need to do my work right. 3. At work, I have the opportunity to do what I do best every day. 4. In the last seven days, I have received recognition or praise for doing good work. 5. My supervisor, or someone at work, seems to care about me as a person. 6. There is someone at work who encourages my development. 7. At work, my opinions seem to count. 8. The mission/purpose of my company makes me feel my job is important. 9. My associates (fellow employees) are committed to doing quality work. 10. I have a best friend at work. 11. In the last six months, someone at work has talked to me about my progress. 12. This last year, I have had opportunities at work to learn and grow. 	

A thorough review of the items listed in Table 2 only serves to reinforce the confusion surrounding the intended target of the engagement construct. Even the most thoroughly researched measure of engagement, the UWES, uses the

terms “job” and “work” interchangeably. This is a rebirth of the same issue Kanungo (1982) noted over 25 years ago in his critique of measures of job involvement at that time. His solution was to create two separate measures, one of job involvement targeting the job, and a second of work involvement targeting work. In describing the primary issue of the time, Kanungo (1982) writes, “Involvement in a specific job is not the same as involvement with work in general. The former is a belief descriptive of the present job and tends to be a function of how much the job can satisfy one’s present needs. But involvement with work is a normative belief about the value of work in one’s life, and it is more a function of one’s past cultural conditioning or socialization” (p. 342). Clearly distinguishing between these separate targets will be critical in defining the engagement construct.

In addition to using both job and work as the target of engagement, the measures in Table 2 also reference the task (e.g., “In my workgroup, people are assigned tasks that allow them to use their best skills”), the work role (e.g., “I understand how my role relates to company goals and objectives”), and the organization (“The best way for me to advance in this organization is to stay with my current supervisor”). Theoretically it is possible for a worker to engage with his or her career or with a customer, but neither approach is typical of the way engagement is conceptualized today. Therefore, the discussion below will consider five possible targets of engagement and thus five forms of engagement: Task Engagement, Role Engagement, Job Engagement, Work Engagement, and Organizational Engagement.

Task Engagement. Fine (1989) defined a “task” as the basic unit of work and outlined an approach to describing tasks using an action verb, followed by the object of the action, and concluding with the source of the information. An example of a task statement within Fine’s job analysis approach is the statement “operates forklift according to the lift instruction manual.” If one were to observe a scenario where a worker was “engaging” in that task, one would expect the worker to physically move levers and push buttons on a forklift so the machine moves in accordance with the instruction manual. Thus, to “engage” in this task is analogous to operating the forklift. Task engagement can therefore be broadly defined as any instance in which a worker is in the process of completing a task. To simply think about a work task would be perhaps the most basic form of task engagement. One disengages with a task when one directs attention away from the task. One can also engage with a task physically (i.e., through physical behaviors) as in the case of forklift operator. An even simpler example is a ditch digger who picks up a shovel and begins the physical motion of digging (a combination of a few basic operant movements) is at that moment “engaged” in the task of digging. When she puts the shovel down she has “disengaged” with the task of digging.

This approach to operationalizing the target of engagement as the task appears to be the underlying approach employed by Schaufeli and colleagues’ view of engagement as a combination of vigor (energy), attention, and absorption (Salanova et al., 2005; Schaufeli et al., 2006; Schaufeli et al., 2002). Absorption, in particular, can only theoretically occur while one is “engaged” in some form of

activity. Though these authors do not explicitly define engagement as “task engagement,” their view of engagement is consistent with a situation in which a person is expending high levels of energy and attention in the service of completing a task and at the same time experiencing a sense of absorption and the rapid passage of time.

Therefore, there is a theoretical foundation for operationalizing the task as the target of engagement and yet, is this the intention of the majority of engagement surveys such as those listed in Table 2 above? It seems clear it is not. First, items such as “I believe in what I do every day at work” and “I am proud to work for my organization” are clearly directed at a much broader state than a single task. Second, because engagement surveys are typically administered annually or even biannually it is virtually impossible to measure single instances of task engagement. At most what is measured is a broader perception about task completion in general. Third, the prior discussion on the variability of engagement made it clear that most researchers and practitioners believe measures of engagement will remain relatively stable over a minimum period of several weeks. This is certainly not a description of task engagement since workers engage and disengage with multiple tasks throughout a given work day and most likely fully disengage with all work tasks when they leave work at the end of the day. The engagement construct typically discussed in the literature and applied domain targets something broader than a simple work task.

Role Engagement. A work role typically includes many tasks. At the same time, a worker in a single job will often hold more than one work role. So a

role is typically larger in scope than a task, but smaller than a job. For example, a designer might take on the work role of project manager for one project and then the role of subject matter expert for a separate project (all the while holding the same job of designer). Rothbard (2001), following the direction of Kahn (1990; 1992), specifically uses the term “role engagement,” which she defines as, “one’s psychological presence in or focus on role activities” and which she argues includes the “critical components of attention and absorption in a role” (p. 656). Attention refers to the amount of time spent thinking about a role, while absorption refers to the level of intensity of focus on the role. She describes a role consistent with the definition above as one part of an overall job and she provides the example of a manager who must engage in one role of acquiring new business for the company and a second role of managing people inside the company.

It seems reasonable that a person can engage in a single work role (e.g., project manager), but then disengage in a separate role (e.g., subject matter expert), but is this how the term is typically used in the literature and applied domain? A review of the typical measures of engagement in Table 2 demonstrates that the target of engagement is typically much more general than a single work role. This may be due to the fact that it is difficult to measure the different levels of role engagement within a person without knowing the different types of roles the person might engage in. If role engagement were the goal of the measure, it might make better sense to have the person list out the roles he or she engages in at work and then allocate 100 points across these roles, giving more points to roles where more effort and focus are directed. This is not the typical approach to

measuring engagement. Rather the goal of these measures is to target a general perception about the person's entire work experience on the job, not to make fine distinctions about levels of engagement between work roles. The conclusion must be that engagement is not typically intended to mean "role engagement."

Job Engagement. A job is defined within this research as the full set of tasks or objectives any single worker is expected to complete. A job can include several different work roles and a large number of work tasks, but it is more specific a term than work in general (Kanungo, 1982). Perhaps most importantly, performance is typically measured at the level of the job. Job performance is ultimately determined by how well a worker completes the assigned tasks or objectives included within his or her specific job. This is more specific than the term "work," which has the disadvantage scientifically of being a very diffuse term to mean general set of work activities (Sackett & Laczko, 2003), as well as a general sphere of life (e.g., work-life versus home-life, or work versus play) (Kanungo, 1982; Rothbard, 2001). What is clear is that a person can change jobs many times within an organization, but still be engaging in work. The worker could even leave the organization entirely, take on a new job, and still engage in "the same line of work."

This research argues on both practical and logical grounds that engagement is in fact "job engagement." The practical argument is that a job is the central unit of analysis for Industrial/Organizational Psychologists (Sackett & Laczko, 2003). A critical goal of job analysis, which is typically the first step in any applied intervention, is to determine the set of tasks one person must do in

one job. The goal is usually not to determine what a group or entire departmental function will do since it is neither the group nor the department that completes the actual tasks, but the people within these entities. As a result, individual job performance is often the criteria of greatest interest for Industrial/Organizational Psychologists. Focusing engagement on the target of a job allows researchers and practitioners the ability to link measures and evaluate engagement alongside a large number of better established constructs, including job performance.

The logical argument for the job as the target of engagement is that researchers and practitioners are clearly intending to target the job in their measures of engagement. The simplest way to illustrate this point is to read through each item intended to measure engagement in Table 2 and consider what changes would likely cause a worker to alter his or her answers to each item. Would it be a change in tasks, the condition of one's work roles, one's job, or one's type of work in general? Consider the following sample of items from Table 2, selected as the first item in each of the engagement surveys:

- At work, I feel full of energy.
- I find the work that I do full of meaning and purpose.
- Time flies when I'm working.
- I really care about the future of my company
- I know what is expected of me at work
- Overall, I have a good understanding of what I am supposed to be doing in my job.
- I believe in what I do every day at work

At first glance, the use of the term “work” throughout would seem to indicate the target is work in general. However, the clear intention of these items is to target the person’s perception of their current job. Most importantly, the goal of these items is to determine what needs to change with regard to a worker’s experience in their current job. Results might be used to change the characteristics of a person’s job or to ensure the person has access to more resources, or to increase the rewards the person receives for performing well on the job. By contrast, the solution will not be to ask the worker to take on a new line of work or to improve rewards targeted at increasing the worker’s belief that work in general is important and should be more central to how he or she defines him or herself. Work is simply too diffuse and too broad a term to be a practically useful target for engagement. The job is a clearly defined unit of analysis. Furthermore, the typical approach used in engagement surveys today targets, explicitly or implicitly, the unit of the job. Engagement is best thought of as one person engaging with one job. Thus, the engagement concept described in the extant literature and the applied domain is best understood as “job engagement.”

Work Engagement. It has already been argued that “work engagement” is not what researchers and practitioners intend then the use the term engagement. If the intention were to create a measure of work engagement, useful guidance has been provided by Kanungo’s (1982) approach to delineating job and work involvement. It is helpful to see the contrast between items from each scale. For example, one of the items measuring job involvement reads, “The most important things that happen to me involve my present job,” while a similar item measuring

work involvement reads, “The most important things that happen in life involve work.” A second job involvement item is, “I consider my job to be very central to my existence.” This can be contrasted with the complementary work involvement item of, “In my view, an individual’s personal life goals should be work-oriented.” The primary distinction between job and work involvement has to do with the degree of generality of these concepts in a person’s thinking with job involvement focused on the person’s current job and work involvement encompassing a person’s general beliefs about work. Work is defined here as a general sphere of life comparable to parenting, volunteerism, political involvement, hobbies or leisure activities.

It is certainly reasonable to create a measure of work engagement, which might be defined as the degree to which a person invests time and energy into their work life. This could be contrasted with engagement with other areas of life, such as home life, or parenting, or engagement philanthropic activities. These are important issues particularly for researchers studying work-life integration, however, this is not the focus of the engagement concept defined in the literature and used by practitioners in applied settings today. Thus, the target of engagement in this research is not work.

Organizational Engagement. It is necessary to touch on the target of an organization only because so many of the items in Table 2 use terminology that focuses on the organization (e.g., “I really care about the future of my company”). However, by these researchers’ and practitioners’ own admission, the reason for including these items within the surveys is that engagement is theorized to include

components of organizational commitment (e.g., Macey & Schneider, 2008). This research will take this position as well and argue that these items are in fact measuring aspects of organizational commitment. The target of engagement is not the organization.

Summarizing the Target of Engagement. After considering the issue of the target of engagement above, it is now possible to clarify the discussions of the nature and variability the construct given that the two types of targets of engagement that are used in the literature are the task and the job. These forms of engagement can be termed “task engagement” and “job engagement” respectively. With regard to the nature of engagement, task engagement appears to have cognitive, affective, and behavioral components, while job engagement will manifest itself primarily as a cognitive evaluative construct. Task engagement will also show higher levels of within-person variation than job engagement. It is the position of this research that both job and task engagement are important variables of interest, but that the failure to clearly delineate these forms of engagement is a major reason for the confusion surrounding the construct today. Once this is done, it is easy to see how task engagement is most closely linked to affective moods such as energy and absorption, while job engagement is more closely linked to cognitive evaluative constructs such as organizational commitment, job satisfaction, personal empowerment, and self-efficacy. Perhaps most importantly it becomes clear that the reason contemporary approaches to engagement include such a wide range of descriptions is because they focus on aspects of both forms of engagement simultaneously. A robust

theory of engagement must distinguish between task and job engagement, and consider how these forms of engagement interact with one another.

The Level of Engagement

The final source of confusion surrounding the engagement concept is that of the level of engagement. Level refers to the question of whether engagement should be operationalized at the individual or collective (e.g., team, department, company) level of analysis. This is an important question simply because engagement is most often measured and applied within organizational settings (Avery et al., 2007), which are characterized by multiple levels of analysis (Klein et al., 1994). The applied use of the engagement concept raises an important question of whether engagement might actually be operating at a collective level of analysis, such as at the work team, department, or company level.

The literature includes several examples of constructs in which the discussion of level has been critical. Psychological and organizational climate are two salient examples of constructs at the center of multilevel discussions (e.g., Glick, 1985; James, 1982), with the original debate surrounding the question of whether organizational climate should be considered an organizational level variable in its own right rather than a construct which only emerges when perceptions regarding climate features are shared among members of the organization. Part of the difficulty in these discussions is the fact that almost any construct can be mathematically aggregated to the collective level and engagement is no exception. In fact engagement scores are typically aggregated at the collective level using one of two common approaches; the group average of

engagement scores (Blizzard, 2004), or the “percent favorable” score for a group (the percentage of respondents in a group who agreed or strongly agreed on a five point scale to the engagement items) (Towers Perrin, 2003). The percent favorable of a group is also referred to simply as the “percent of engaged employees” for a given group (Wellins et al., 2005).

The question of level is further clouded by the fact that the aggregate scores on engagement (e.g., average of engagement and percent engaged) have been shown to be useful predictors of a variety of important business outcomes. For example, the percent of engaged associates at the store level has been correlated with store customer service scores and store sales metrics to demonstrate the return on investment (ROI) of engagement (Blizzard, 2004; Wellins et al., 2005). It is therefore tempting to assume that because store levels of engagement predict various store outcomes that the engagement construct is actually operating at the store level of analysis. And yet, these statistical results are neither surprising nor are they indications alone that engagement is a group level variable. Obviously any average score for a group can be predictive of other group outcomes without indicating the presence of collective level construct. To make the argument that engagement operates at the group level, one must describe how engagement emerges at the group level in first place as well as how it differs at that level than at the individual level.

Klein et al. (1994) provided a useful framework for approaching multilevel theory development and argued that there are at least four general levels at which a construct such as engagement might operate: 1) within

individuals over time, such as a comparison of a worker's individual levels of engagement from one week to the next (the within individual level); 2) individuals within groups, such as a comparison of the level of engagement between workers in a store (the individual level); 3) groups within organizations, such as a comparison of the percentage of engaged workers between stores within a company (the group level); 4) organizations within industries, such as a comparison of engaged workers between companies in a given industry (the organization level). In the first and second scenario above, engagement would be said to operate at the individual level of analysis, with the difference between the two cases having to do with the degree of within-person variability on the construct in question. This is essentially the question of variability that was discussed earlier and it was determined that task engagement will have a high degree of within-person variability and job engagement will show relatively more moderate degrees of variability at the within-person level. Thus, forms of engagement do appear to operate in the first case (the within individual level). In addition, as a state-based construct, job engagement is expected to remain relatively stable over a period of weeks and even months. This means it is also reasonable to compare the levels of engagement between individuals in a group in a cross sectional analysis at a given point in time. So job engagement can also be expected to operate in the second case (the individual level). However, can engagement be said to operate at the group or organizational level?

Klein et al. (1994) add an additional dimension to the multilevel discussion by outlining three ways in which a construct might operate between a

set of given levels (e.g., between the individual and group levels). These include the options of homogeneity, independence, and heterogeneity. An argument of homogeneity states that engagement operates only at the higher level of analysis (e.g., the group level), while the opposite argument is that of independence, which states that engagement operates only at the lower level of analysis (e.g., the individual level). The argument of heterogeneity states that engagement operates at both the lower and higher levels of analysis either simultaneously or at different points in time (e.g., at both the individual and group level). This dimension adds significant complexity to the discussion of level because it means there are at least 12 theoretically possible combinations for operationalizing engagement. Table 3 is adapted from Klein et al. (1994) and represents theoretical conceptualizations of the engagement construct at each level and each relationship between levels.

Table 3: Conceptualizations of the Levels of the Engagement Construct

Level	Relationship Between Levels		
	Homogeneity	Independence	Heterogeneity
Within Individuals over Time	Engagement has little to no within-person variance over time, operating as a dispositional trait.	Engagement has significant within-person variance over time, operating as a situational affect unaffected by dispositional traits.	Engagement shows within-person variance related to other personal characteristics, operating as a state-based construct affected by dispositional traits.
Individuals within Groups	Engagement has little to no variance among group members, operating fully as a group level variable.	Engagement has significant between-person variance within a group, operating fully as an individual level variable.	Engagement shows between-person variance within a group impacted by group membership (i.e., a “frog pond effect”).
Groups within Organizations	Engagement has little to no variance among groups, operating fully as an organizational level variable.	Engagement has significant between-group variance, operating fully as a group level variable.	Engagement shows between-group variance within an organization impacted by organizational membership.
Organizations within Industries	Engagement has little to no variance among organizations, operating essentially as an industry constant.	Engagement varies significantly between organizations, operating fully as an organizational level variable.	Engagement shows between-organization variance impacted by type of industry.

Note: Adapted from Klein et al. (1994, p. 205).

What makes the discussion of level particularly challenging is that there are at least two general forms of engagement that are the focus of current research and application: task engagement and job engagement. It is theoretically

reasonable to expect these forms of engagement to operate at different levels of analysis since task engagement is more specific in scope than job engagement. Specifically, the position of this research is that job engagement emerges as a broader cognitive evaluative construct out of several individual instances of task engagement. In order to clearly define how each form of engagement operates, the discussion below will begin with job engagement and focus on whether engagement operates fully at the individual level (an argument of independence with regard to individuals within groups) or fully at the group level (an argument of homogeneity with regard to individuals within groups) or some combination of the two (an argument of heterogeneity with regard to individuals within groups). Ultimately, an argument of heterogeneity between the individual and group levels is made for job engagement. In other words, the average level of job engagement in a group is expected to impact the degree of job engagement any individual member.

The Argument of Homogeneity. An argument of homogeneity can be seen in two commonly cited group level variables: diversity (Webber & Donahue, 2001) and shared mental models (Mohammed & Dumville, 2001). It is easy to see how these variables not only operate at the group level, but how they can not even exist at the individual level (Ilgen, Hollenbeck, Johnson, & Jundt, 2006; Kozlowski & Bell, 2003). How can one person represent diversity for a group? How can one person possess a shared mental model among members of a group? These variables quite literally “emerge” only at the group level, and thus fit a multilevel theoretical framework. By contrast, job engagement has clearly been

operationalized within the literature and the applied domain as a variable that can occur within a single person. Furthermore, job engagement is best thought of as a description of a single person engaging with his or her own job. The key point is that it is expected that job engagement operates at the level of the interaction between one person and one job. A group of people, or team, is not required for job engagement to emerge. Therefore, the argument of complete homogeneity at the group level is rejected. The same argument would follow for task engagement and can also be applied to any level larger in scope than the group such as the department or organizational level. What is less certain is whether the argument of independence versus full heterogeneity should be adopted for job engagement.

The Argument of Independence. In making the case that job engagement operates fully independent of any higher level (i.e., that it operates only at the individual level), one must argue that group membership will not have any significant impact on levels of individual job engagement. This is a challenging argument to make within a work setting where task interdependence and work teams are commonplace. Thus, the most likely possibility for engagement to operate fully independent of the group level would be in a single person organization. An example might be a single farmer who interacts only with the machinery, agricultural products, and livestock on the farm. It would seem perfectly appropriate to describe this farmer as “engaged” with the job of farming and argue that this form of engagement operates without any group influence. However, this is a limiting case and cannot be extended to all situations involving

job engagement. The better question is to ask how job engagement typically operates within work settings, especially those targeted by engagement surveys.

Work teams are a pervasive aspect of most typical organizational work settings (Bell, 2007). Therefore, one simply needs to articulate a scenario in which individual level job engagement is impacted by the degree of job engagement of other team members. This is possible in the case of the mediating variable of team member support. The argument proceeds as follows: 1) workers with a high degree of job engagement are more likely to support others on the team, 2) team member support is one factor that impacts job engagement, 3) the prevalence of job engagement among team members will impact the degree of job engagement for each individual on the team. Therefore, it does not appear possible to support the argument of full independence with regard to job engagement at the individual level. The same argument can be made for any single instance of task engagement.

The Argument of Heterogeneity. The case of heterogeneity has also been referred to as a “frog pond effect” (Klein et al., 1994). The reference is to the characteristics of frogs, such as size, that can be shown to differ as a result of both the internal genetic make-up of a given frog (individual level characteristics) as well as the external characteristics of the pond where the frog lives such as the supply of food (group level characteristics). The argument of heterogeneity appears to be the best theoretical approach to job engagement because the individual’s degree of job engagement is expected to depend in part on the characteristics of the team within which the individual is nested.

It is helpful to consider a separate but highly related variable to job engagement to illustrate the argument of heterogeneity. Self-efficacy is a personal belief that one has the capability to produce effects by one's actions. This can be differentiated from collective efficacy, which is an emergent group-level property that involves the collective belief of group members in the power of the group to achieve various outcomes (Bandura, 2001). Self-efficacy is influenced by several individual level characteristics, such as the skill of the individual (Bandura, 2001), or the degree of trait-based generalized self-efficacy (Judge & Bono, 2001), but it is also affected by the degree of collective efficacy of the group to which the individual belongs. Job engagement is expected to operate similarly, as an individual level variable that exhibits heterogeneity with regard to individuals within groups.

Summarizing the Contemporary Engagement Concept

The first goal of this research was to identify the primary sources of confusion surrounding the contemporary engagement concept and summarize current areas of agreement. Four primary sources of confusion were outlined above as a lack of clarity in the 1) nature; 2) variability; 3) target; and 4) level of the engagement concept. It is now possible to summarize the areas of agreement and provide a working definition of engagement that fits the contemporary use of the term. An important contribution of this research was to delineate between various forms of engagement and establish that a minority of researchers have focused on what should be termed task engagement, with the majority focused on the form that is best referred to as job engagement. The primary focus of this

research will be job engagement because it captures the majority of the approaches to the engagement construct and provides an important link to job performance. The nature of job engagement is similar to a type of job attitude with cognitive, affective, and behavioral components. Job engagement operates as a state-based construct with regard to its variability. The target of job engagement is the job, with a more proximal form targeting the task. Job engagement is expected to operate at the individual level rather than the group or organizational levels, although any theory of engagement must include the possibility of group level variables impacting individual level engagement. In summary, a clearer description of the construct most commonly referred to as engagement by current researchers and practitioners is that of job engagement, a state-based construct operating at the individual level of analysis with cognitive, affective, and behavioral components. The second goal of this research is to identify the nomological network of engagement, which is the focus of the following section.

The Nomological Network of Job Engagement

A critical part of establishing a new construct, or in the present case, clarifying an existing construct, is to outline the relationship between the construct in question and other known constructs within the literature. This is the process of determining a construct's nomological network (Cronbach & Meehl, 1955). Table 4 below provides a summary of known constructs that have been discussed in the literature or applied domain as theoretically related to engagement either as components, antecedents, or outcomes.

Table 4: Constructs Theoretically Related to Engagement

Construct	Relationship	Source
Absorption	Component	(Kahn, 1990; Rothbard, 2001; Schaufeli et al., 2006)
Attention	Component	(Kahn, 1990; Rothbard, 2001; Schaufeli et al., 2006)
Energy / Vigor	Component	(Maslach & Leiter, 1997; Schaufeli et al., 2006)
Goal Commitment	Component	(Rothbard, 2001)
Job Involvement	Component	(Kahn, 1990; Macey & Schneider, 2008; Maslach & Leiter, 1997)
Job Satisfaction	Component	(Macey & Schneider, 2008; Wellins et al., 2005)
Organizational Commitment	Component	(Blizzard, 2004; Macey & Schneider, 2008; Masson et al., 2008; Towers Perrin, 2003; Ward, 2005)
Personal Empowerment	Component	(Macey & Schneider, 2008; Towers Perrin, 2003)
Self-efficacy	Component	(Maslach & Leiter, 1997)
Advancement Opportunities	Antecedent	(Towers Perrin, 2003)
Availability of work resources	Antecedent	(Kahn, 1990)
Belief in Organization's Goals and Values	Antecedent	(Ward, 2005)
Belief in Future of the Organization	Antecedent	(Ward, 2005)
Job Characteristics	Antecedent	(Hackman & Oldham, 1980; Hallberg & Schaufeli, 2006; Kahn, 1990; Towers Perrin, 2003)

Table 4: Constructs Theoretically Related to Engagement continued

Construct	Relationship	Source
Leadership Support	Antecedent	(Towers Perrin, 2003; Wellins et al., 2005)
Leadership Vision	Antecedent	(Towers Perrin, 2003; Wellins et al., 2005)
Meaningfulness of Work	Antecedent	(Kahn, 1990)
Pay and Benefits	Antecedent	(Ward, 2005)
Physical Safety	Antecedent	(Towers Perrin, 2003; Wellins et al., 2005)
Psychological Safety	Antecedent	(Kahn, 1990)
Rewards and Recognition	Antecedent	(Towers Perrin, 2003; Wellins et al., 2005)
Role Clarity	Antecedent	(Ward, 2005)
Team Member Support	Antecedent	(Towers Perrin, 2003)
Trust in Management	Antecedent	(Towers Perrin, 2003)
Customer Service	Outcome	(Towers Perrin, 2003)
Discretionary Effort	Outcome	(Towers Perrin, 2003; Ward, 2005; Wellins et al., 2005)
Job Satisfaction	Outcome	(Wellins et al., 2005)
Loyalty (Organizational Commitment)	Outcome	(Towers Perrin, 2003; Ward, 2005; Wellins et al., 2005)

The components of engagement in Table 4 have already been discussed in the prior review of the literature. However, with regard to antecedents, Kahn (1990) outlined three primary psychological conditions that impact engagement in the workplace: meaningfulness (a sense of return on investments of self in role performances), safety (a belief in one's ability to invest one's sense of self at work without fear of negative consequences to self-image, status, or career), and availability (a sense of possessing the physical, emotional, and psychological resources necessary for investing one's self in role performance).

Table 4 makes it clear that the current state of disagreement surrounding the engagement concept is not isolated to components of engagement, but extends to its nomological network. For example, job satisfaction is listed by different authors as a component, and an outcome of engagement. Empowerment, which is considered a component of engagement by some (e.g., Macey & Schneider, 2008), is listed by others as an antecedent of engagement (e.g., Towers Perrin, 2003). Within the applied domain it appears that agreement is limited to two general points: 1) the constructs listed in Table 4 are related in some way to the concept of engagement, and 2) are predictive of valuable business outcomes such as job performance and organizational effectiveness.

One of the major reasons for the nomological confusion may be due to a measurement issue. It is not uncommon to find strong positive intercorrelations between survey items measuring the constructs presented in Table 4 to such a degree that a factor analysis will support a single higher order factor (Harter & Schmidt, 2008). Based in part on this finding, the Gallup Corporation goes as far as arguing that the best overall measure of engagement is simply the composite of a wide range of the constructs listed in Table 4. A reference back to the items composing the Gallup Q¹²TM listed in Table 2 earlier will show that nearly all of the 12 items in the measure are focused on a different construct. The theoretical argument is that workers form a unified global perception of their work experience, which is the best overall measure of engagement. Empirical support for this approach has been shown through high levels of internal consistency and unidimensionality among the items in the Q¹²TM and strong positive correlations

of over .80 (corrected for measurement error) with measures of organizational commitment and engagement measured by the UWES (Harter & Schmidt, 2008).

However, it is the position of this research that it is neither sufficient nor particularly useful to conclude that engagement is a composite factor of the constructs listed in Table 4. How, for example, does that approach help explain the relationship between constructs such as task identity, satisfaction with pay and benefits, and perceptions of team member support? Clearly, these constructs operate separately (i.e., it is possible to be satisfied with one's pay while at the same time perceive low levels of team member support). In addition, the actions management would take to address each issue are entirely different. Rather what is desperately needed is a clearer definition of the job engagement construct and theoretically sound model that describes the way in which the constructs in Table 4 interact to produce job engagement. In order to accomplish these goals, it is the position of this research that it is first necessary to identify the critical role of motivation in the engagement process. The final section of the literature review below presents a summary of the relevant motivation research and outlines the primary arguments supporting a definition of job engagement that involves a cognitive motivational process.

The Motivational Process Underlying Job Engagement

While a consensus on a definition of work motivation does not exist (Donovan, 2001), a commonly cited definition is provided by Pinder (1998) as "a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction,

intensity, and duration” (Pinder, 1998, p. 11). The link between engagement and work motivation has already been noted by several authors within the engagement literature. For example, Rothbard (2001) noted the conceptual link between the attention component of engagement and task motivation described in Goal Setting Theory (Locke & Latham, 1990), specifically with regard to the power of goals to direct a person’s attention to on-task behaviors. Dalal et al. (2008) also stated that engagement is theoretically linked to motivational processes because of its close ties to attention. These authors refer to a model of the self-regulation of attention developed by Beal, Weiss and Barros (2005), which notes that the primary function of self-regulation, during moments when a person is working to complete a work task, is to regulate the person’s attentional resources toward on-task, instead of off-task, behaviors. Finally, Schaufeli and colleagues’ extensive research on engagement (e.g., Schaufeli et al., 2002) includes the component of vigor, or energy, which is one’s desire to expend effort to achieve one’s work goals (a concept closely linked to the motivational component of intensity). Another component in their model is dedication, which is related to the goal commitment aspect of motivation (Mauna, Kinnunen, & Ruokolainen, 2006).

It is also possible to begin with the motivation literature and draw links to the engagement concept. Mitchell and Daniels (2003), in their handbook chapter on motivation, presented a model of motivation that included a set of individual inputs that impact motivation (e.g., ability, job knowledge), a set of job context inputs that impact motivation (e.g., physical environment, task design), and a description of the motivational process itself comprised of the elements of

arousal, direction, and intensity. They listed the theoretical outcomes of motivation in their model as: attention, effort, persistence, and task strategies. The connection with the engagement concept is unmistakable. Effort is akin to the concept of vigor or energy and persistence is essentially the same concept as dedication within Schaufeli and colleague's model of engagement (Schaufeli et al., 2002). Attention is already a well established component of the engagement concept. However, energy, absorption, and attention have been described above as the primary components of task engagement. In order to understand the relationship between motivation and job engagement it is necessary to draw on insights from three of the most influential cognitive motivational theories of the past 50 years.

A Review of the Relevant Motivation Literature

Motivation, like engagement, can operate at the level of a task as motivational energy to complete a specific task-based goal, but it also can also operate at the level of the job as an ongoing general state of motivation to perform one's job. Mitchell and Daniels (2003) describe this form of ongoing motivation as an "on-line motivational process," noting that in these cases "...motivation is dynamic and unfolds over time" (p. 237). These authors further clarify their view of on-line motivation by referring to the classification of motivational processes by Lewin, Dembo, Festinger, and Sears (1944) as being either "goal setting" or "goal striving" processes. Goal setting is the forward looking aspect of the motivational process, while goal striving is the aspect of motivation that occurs in the present. Another way to state the difference is that goal setting occurs when a

person is “becoming motivated” and goal striving occurs while a person “is motivated,” such that motivation has in this sense come “on-line.” This research will focus on this second form of motivation, on-line motivation, as the process underlying the state of job engagement.

Understanding the motivational process and the mechanism underlying on-line motivation requires consideration of a few basic cognitive motivational principles. Fortunately, unlike engagement, the study of motivation has been a hallmark of Industrial and Organizational Psychology for over 100 years. The challenge then is not identifying a viable approach to motivation, of which there have been many, but rather honing in on the findings that are most useful in understanding the on-line motivational process that drives job engagement. The present research will draw its principles of motivation from three influential cognitive approaches to motivation: VIE Theory (Vroom, 1964), Goal Setting Theory (including principles of Social Learning Theory) (Bandura, 2001; Locke & Latham, 1990, 2002), and Perceptual Control Theory (Carver & Scheier, 1998; Powers, 1973; Vancouver, 2005). While there are a number of other approaches to motivational, such as needs based theories and personality based theories (Latham & Pinder, 2006), this research views job engagement as primarily a conscious, cognitive evaluative process consistent with current approaches to engagement discussed earlier and the nature of the constructs within its nomological network. For this reason, these three cognitive theories of motivation are most relevant to the current discussion.

VIE Theory. VIE Theory is no longer the focus of much of contemporary motivation research and has been generally downgraded to the status of an important, but largely historical theory of motivation (Latham & Pinder, 2006). However, the theory is still useful in a discussion of the basic principles of a conscious motivational process. In his theory, Vroom (1964) outlines three basic motivational components: expectancy, instrumentality, and valence. Expectancy is a measure of the degree to which a person believes he or she can accomplish some initial action or outcome. Instrumentality is a measure of the person's belief that accomplishing the first outcome will lead to some form of secondary outcome, such as a reward. Finally, valence is the perceived value of the secondary outcome (e.g., the value of the reward to the person). The concept of instrumentality is perhaps the most insightful point in VIE Theory because it acknowledges that certain aspects of goal obtainment are outside of the person's direct control. Thus, for motivation to occur according to VIE Theory, a person must 1) identify a valued outcome, 2) identify actions that will obtain that outcome, 3) believe he or she is capable of carrying out those actions, and 4) trust that environmental conditions will support his or her efforts. Step four is the instrumentality portion of the formula.

While these four events are fairly simple, several barriers to motivation can be identified beginning with the perceived outcome of value. If a person does not identify an outcome they value, such as money, or comfort, or the respect of others, motivation clearly will not occur. Second, a person may not be able to identify a course of action which they believe could lead to obtaining his or her

desired outcome (e.g., a worker may want to earn a monetary bonus at work, but she does not know what actions she can take to earn the bonus). Third, the person may identify an outcome of value, and identify possible actions they can take to achieve the outcome, but the person may not believe he or she can carry out those actions (e.g., the worker might know that if she sells 1,000 items she will receive the monetary bonus she desires, but she simply does not believe she is capable of selling the 1,000 items). Finally, even if the first three components are in place, the worker may not believe achieving the outcome will lead to the reward (e.g., the monetary bonus is not only contingent upon selling 1,000 items, but also on the overall annual earnings for the company, and the current financial situation of the company is so poor that the worker does not believe she will receive the monetary bonus even if she personally sells 1,000 items). This final point is as critical as the other three. If a worker does not trust management to follow through on a reward (i.e., low levels of trust or perceived organizational justice), or does not believe he or she will be empowered to take the necessary actions, or fears that when the time comes to take action that the necessary managerial or team member support will not be present, a worker is unlikely to experience a strong sense of motivation. These are all significant contributions to motivational theory made by Vroom's (1964) VIE Theory.

Goal Setting Theory. Goal Setting Theory (GST) as a contemporary of VIE Theory, but succeeded it as the dominant cognitive theory of human motivation. Recently, GST has been called one of the most practically useful and best substantiated theories of human motivation (Latham & Pinder, 2006; Pinder,

1998). While GST adopted many of the same principles of VIE Theory, it has proven to be a better predictor of performance outcomes in a wider range of situations, especially in cases when goal difficulty varies (i.e., VIE Theory tends to only predict performance outcomes accurately when goal difficulty remains constant) (Locke & Latham, 2002). One of the most important contributions of GST is the finding that setting clearly defined goals with higher levels of goal difficulty leads to higher levels of performance on those goals than less challenging and unclear goals. Since most applied situations involve continual fluctuations in goal difficulty, and often involve the possibility that the person or a manager can control goal difficulty, the predictions made in GST have been shown to be more practically applicable and useful than VIE Theory.

The most important contribution for the present discussion is the treatment of the concept of feedback in GST. Feedback is the critical component that sustains goal commitment as well as the link between goal attainment and goal acceptance for subsequent goals. As a person works toward goal completion, feedback provides an indication of progress along the way. After a person receives the feedback that he or she has completed one goal, the person can be expected to set a subsequent goal depending upon the nature of the feedback (Locke & Latham, 2002). In an ideal motivational scenario, a person will set a specific challenging goal, receive sufficient amounts of feedback during goal completion, complete the goal, and then experience motivation to set an even more challenging goal. The move from goal completion to subsequent goal setting to completion of the new goal and then onward to setting another new goal begins

to form a cyclical process of self-regulation. The basic principles of this cycle have been outlined by Locke and Latham (1990) under the terminology of the “High Performance Cycle.” This final contribution of a cyclical process of self-regulation is especially important for the present research because it begins to explain how an ongoing motivational state might form out of many individual instances of motivational energy, behaviors, and feedback. However, Goal Setting Theory has yet to fully develop a comprehensive model of ongoing active motivation (Mitchell & Daniels, 2003). In order to do so within this research, it is necessary to turn now to another motivational theory of self-regulation: Perceptual Control Theory (Powers, 1973).

Perceptual Control Theory. The core concept of Perceptual Control Theory (PCT) is that, as stated by Powers (1973), “behavior is the process by which organisms control their sensory input data” (p. xi). In other words behavior is a proactive attempt by a person to control (i.e., to influence or change) the perceptual information he or she is receiving from the environment. In a simple example, reaching to scratch an itchy mosquito bite on one’s arm is not said to be a reaction to the sensation of itchiness, but rather one of many proactive behavioral options intended to remove the sensation of itchiness going forward. One could have chosen other behaviors such as putting a soothing cream on the itch, inflicting pain at the point of the itch to overpower the sensation, or simply directing one’s attention elsewhere. Thus, PCT is centrally a cognitive motivational theory. What PCT incorporates into its explanations of behavior that is particularly important to the present research are the concepts of a “negative

feedback loop” and the “control hierarchy” as foundations of this cognitive motivational process of the self-regulation of behavior.

The simplest motivation process described in PCT is that of a single negative feedback loop (Carver & Scheier, 1998). In its most elementary form the process of the negative feedback loop comprises four basic components: an input function, referent standard, comparator, and an output function (Carver & Scheier, 1998). When the negative feedback loop is operating, the person will receive some form of input from the environment. The comparator function resides within the person and does the job of comparing the input function with an already present referent standard. If a discrepancy is found between the input function and the referent standard, the system will produce an output function with the intention of reducing the discrepancy in future input functions. For a person, the presence of a discrepancy will be experienced as motivation. The output function is a person’s behaviors that are intended to reduce subsequent discrepancies.

An example of a simple negative feedback loop is the typical heating system used in most modern homes. In this case, the comparator is the thermostat in the home, which measures the current air temperature. The referent value is whatever desired temperature is set on the thermostat (e.g., 70 degrees Fahrenheit). The input function is the measure of current air temperature taken by the thermostat and the output function is the signal sent by the thermostat to the heating system to turn on or turn off. In the typical case of heating a home, a signal will be sent by the thermostat any time the comparator measures an input function of the current air temperature that is below 70 degrees Fahrenheit. Once

the input function is measured by the comparator as 70 degrees Fahrenheit or above, the comparator will send a signal to the heating system to turn off (e.g., become inactive). In this simple example of a negative feedback loop, there are only two output functions possible, either the thermostat will send a signal to the heater to turn on or to turn off such that the result is either action, or inaction. However, it is important to note that in many cases the full reduction of discrepancy does not equate to inaction. For example, in the case of an automobile cruise control mechanism set at a referent standard of 55 miles per hour, the output function that results from a case of zero discrepancy is not inaction, but rather a continuation of the same action (i.e., same fuel output) until a discrepancy is registered. This form of what might be called a “maintenance function” is an important concept in the model of job engagement presented later.

A critical element in the formation of a negative feedback loop is the identification of the referent standard. In the examples of the thermostat and automobile cruise control, these referent standards were set by people. But what about the people themselves; where do their referent standards originate? Carver and Scheier (1998) argued that peoples’ goals are typically organized in a “control hierarchy” such that higher-order, more general goals determine the referent standards for lower-order more specific goals. Thus, the better term for this phenomenon is a goal hierarchy. An example of a goal hierarchy might begin with the higher-order goal of strengthening relationships with one’s family members, which results in setting a more specific goal of preparing dinner for the family, leading to an even more specific goal of preparing a dish of mashed potatoes,

which requires setting an even more specific goal still of peeling a potato. So the referent standard for the negative feedback loop involved in peeling the potato is set by the goal to prepare the dish of mashed potatoes, itself set by the next higher goal and so on. What is most interesting about this goal hierarchy is that observable behaviors only appeared at a relatively low goal level, prior to which there were a series of purely cognitive and generally unobservable behaviors involved in conceptualizing the higher order goals. The level at which behaviors occur is typically referred to as the “Program Level” in PCT (Carver & Scheier, 1998). This contribution from PCT is critical in understanding the relationship between a state of job engagement and individual instances of task engagement.

Rationale

This research began with the basic assumption that the researchers and practitioners have captured something of importance in the engagement concept. While several sources of confusion have led to a wide range of views on engagement, there is a general consensus that engagement is primarily targeted at the job, operating as a state-based construct at the individual level of analysis with cognitive, affective, and behavioral components. There is also broad agreement on the constructs that compose engagement's nomological network even while there is disagreement as to how these constructs interact. The solution is to link a motivational process with the state of job engagement. This leads into the third goal of this research, which is to describe the relationship between engagement, motivation, and performance in order to provide a more complete definition of engagement.

A New Definition of Job Engagement

It is now possible to draw from the principles of motivational research and link engagement, motivation, and performance. The critical link between all three is the concept of the goal hierarchy provided by PCT and specifically the program level goals, which is the point in the hierarchy where behaviors first appear. In the example of preparing a meal, it was not until the goal was peeling a potato that the person would have displayed physical actions. Up to that point, the components of the negative feedback loops, including the outputs of each loop were purely cognitive in nature. Each output was essentially a planning function drilling down from abstract concepts toward tangible actions (i.e., I want to build

strong relationships with my family so I will cook dinner; I need to cook something for dinner so I will make mashed potatoes; I need to make mashed potatoes so I will peel a potato). Many goal hierarchies take this same form, beginning with abstract goals that serve as referent standards for more specific behavioral goals. Being a good spouse or parent, being a strong student, having a successful career, being an influential speaker, being an effective teacher are all examples of abstract higher order goals that ultimately influence behaviors. These goals do not immediately result in behaviors. One cannot, for example, display the action “be good at sports.” Instead one must set “program” level goals (Carver & Scheier, 1998) such as win the big game, or score a certain number of points in the game.

A second important aspect of the negative feedback loops that have as their referent standard a higher order abstract goal is that these loops often form a type of “maintenance function” similar to that of the automobile cruise control. For example, one does not really ever achieve the goal of “being a good spouse” or “being good at sports.” Instead, one identifies task-based goals one can achieve to demonstrate one is maintaining a state of being a good spouse or good at sports. Accomplishing the task-based goal with specific endpoints means that additional action is no longer necessary for these goals. The next step is for the person to identify new task-based goals. But failing to produce new achievements over time will impact the higher order abstract goal by forcing the person to shift their perception of themselves to the past tense such as “I was a good spouse” or “I was good at sports.” Inaction is not possible for the maintenance of these higher order

abstract goals. At best, levels on these goals can simply be sustained. As a result, these abstract goals are a different type of goal than is typically described by Goal Setting Theory. Rather than being a goal with a specific end point, they are better thought of as an ongoing referent standard.

Within work settings, the prototypical higher order abstract goal is job performance. It is important to note that this goal is often subordinate to even higher order rewards-based goals such as receiving a pay increase or a job promotion. What is noteworthy about applied work settings is that rewards are most often linked to an opaque notion of job performance. So if the worker desires an increase in pay or a promotion, he or she must first commit to the goal of job performance. Following from the discussion above, the next step is to identify task-based goals he or she can complete that will demonstrate job performance. It is at the task level that observable behaviors first appear in work settings. Thus, the real genius behind the underlying motivational capacity of the concept of job performance is that it forms an abstract referent standard for the lower level task-based goals and, as a result, job performance can never be fully achieved; it can only be sustained. This point may appear counterintuitive since the purpose of any performance review, such as an annual review, is to evaluate the level of job performance that has been achieved throughout the year. However, what is actually being evaluated is total level of achievement of specific task level goals over a given period of time, such as whether the worker completed Project X on time and under budget. Based on the level of achievement

of various work goals or tasks, a general impression of overall job performance is formed for the period of time that it was evaluated.

This specific type of negative feedback loops forms the link between engagement, motivation, and performance. Workers first commit to the higher order goal of job performance, which leads them to identify specific task-based performance goals. To the extent the worker believes he or she is capable of completing the tasks and believes the environment will support task completion, the worker will experience a sense of motivation directed at task completion. This will lead the worker to engage with the task. Finally, feedback is required to monitor task completion during task engagement and ultimately to determine whether the task was completed. Once tasks are completed, new tasks must be identified and the cycle begins again. It is this ongoing cycle moving from task identification to task engagement to evaluation of task completion, all in the service of the higher order goal of sustaining job performance, which creates a state of job engagement. Therefore, job engagement is defined as *a state of active motivation to perform in one's job, characterized by an ongoing willingness to expend effort in the service of sustaining job performance.*

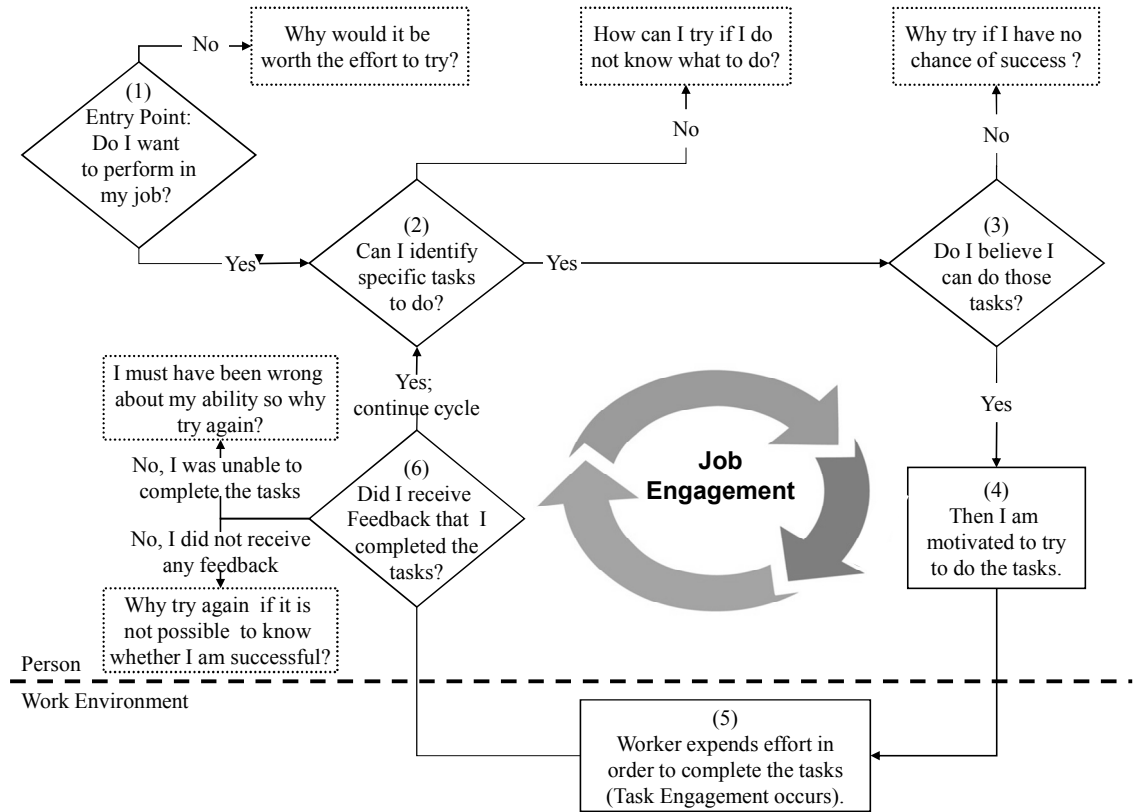
Modeling Job Engagement

The fourth goal of this research is to present a new theoretical model of the engagement process. It is helpful to begin with a basic conceptual model of the cyclical motivational process that underlies a state of job engagement. Figure 1 below outlines the conceptual progression of cognitive and behavioral events expected to occur as engagement first come online. The model contains six

discrete events that are theorized to occur in consecutive order through one full cycle of the model. A single cycle corresponds to a single event of task engagement. A state of job engagement forms when environmental conditions support consecutive cycles through the model. The model also identifies four primary cognitive evaluation points rooted in prior motivational research that determine whether the motivational process will come online in the first place and whether it will continue through consecutive cycles. These cognitive evaluation points can also be viewed at input points since it is at these points where environmental conditions and other antecedent constructs will influence the motivational process. In an ideal scenario supporting the formation of job engagement, antecedents will influence the person at each input point so that he or she progresses through the six steps in the model and then continue through successive cycles resulting in an ongoing state of job engagement. However, at each of the six steps it is also possible for the worker to believe he or she either does not want to or is not able to proceed to the next step. Examples of negative cognitions a worker might have are provided in the dotted lined boxes in the model. If these types of cognitions form the worker will be unlikely to proceed to the next step in the model.

Figure 1

Conceptual Model of Job Engagement



The motivational process in a work setting begins with a general cognitive commitment to job performance. This goal serves as the higher order referent standard for all subsequent actions and is thus modeled in Figure 1 as the “Entry Point.” Obviously the degree to which the worker aspires to maintaining high level of job performance will impact all subsequent steps in the model, but for the purpose of this conceptual model the focus is simply whether the worker will generally state “yes, I want to perform” or “no, it is not that important for me to perform.” A worker who states that he or she has no desire to sustain job performance will also not exhibit future instances of task engagement (i.e., why

exhibit any effort if one does not care about achieving any results). If the worker answers “yes” to step one, the worker must move to step two and attempt to identify specific tasks at the program level that will demonstrate job performance. This is the second cognitive evaluative input point because motivation will or will not continue to come online depending upon the evaluation the worker makes at this point. This point is most closely related to the degree of role clarity perceived by the worker and thus, setting clear, behavioral-based goals and communicating specific performance expectations are two ways in which management can impact this input point.

The third step, which is also the third cognitive evaluative input point in the model, is an evaluation by the worker of whether he or she is capable of completing the tasks. There are two important sets of contributing factors on this cognitive evaluation. One set of factors are those experiences that impact a personal sense of self-efficacy, such as having received training or experiencing prior success on similar tasks (i.e., enactive mastery). The other set include any environmental factors outside of the worker’s control, but which the worker perceives to have an impact on task completion. These factors include trust in management, organizational justice perceptions, empowerment perceptions, and the perceived availability of tools and resources. As a practical matter, it is assumed that one rarely delineates the internal and external factors when evaluating one’s total ability to complete a set of tasks. It is the position of this research that this is generally experienced by the worker as a sense of self-efficacy.

If steps one, two, and three all result in a “yes” statement, the model predicts that a person will progress to step four and experience a sense of motivation to try to complete the tasks. This step is not modeled as one of the four evaluative input points so it is given a square shape to indicate it is now an inevitable step in progression in the process. Similarly, if a worker is motivated to try to complete the tasks, the next inevitable step (step five in the model) is task engagement (i.e., expending effort in the service of task completion). The key point being that motivational energy and subsequent task engagement are not directly impacted by the external environment. Environmental factors are mediated by the preceding cognitive evaluations in steps one through three. Step five is an important step in the model because it is externally observable in the form of behaviors directed at task completion.

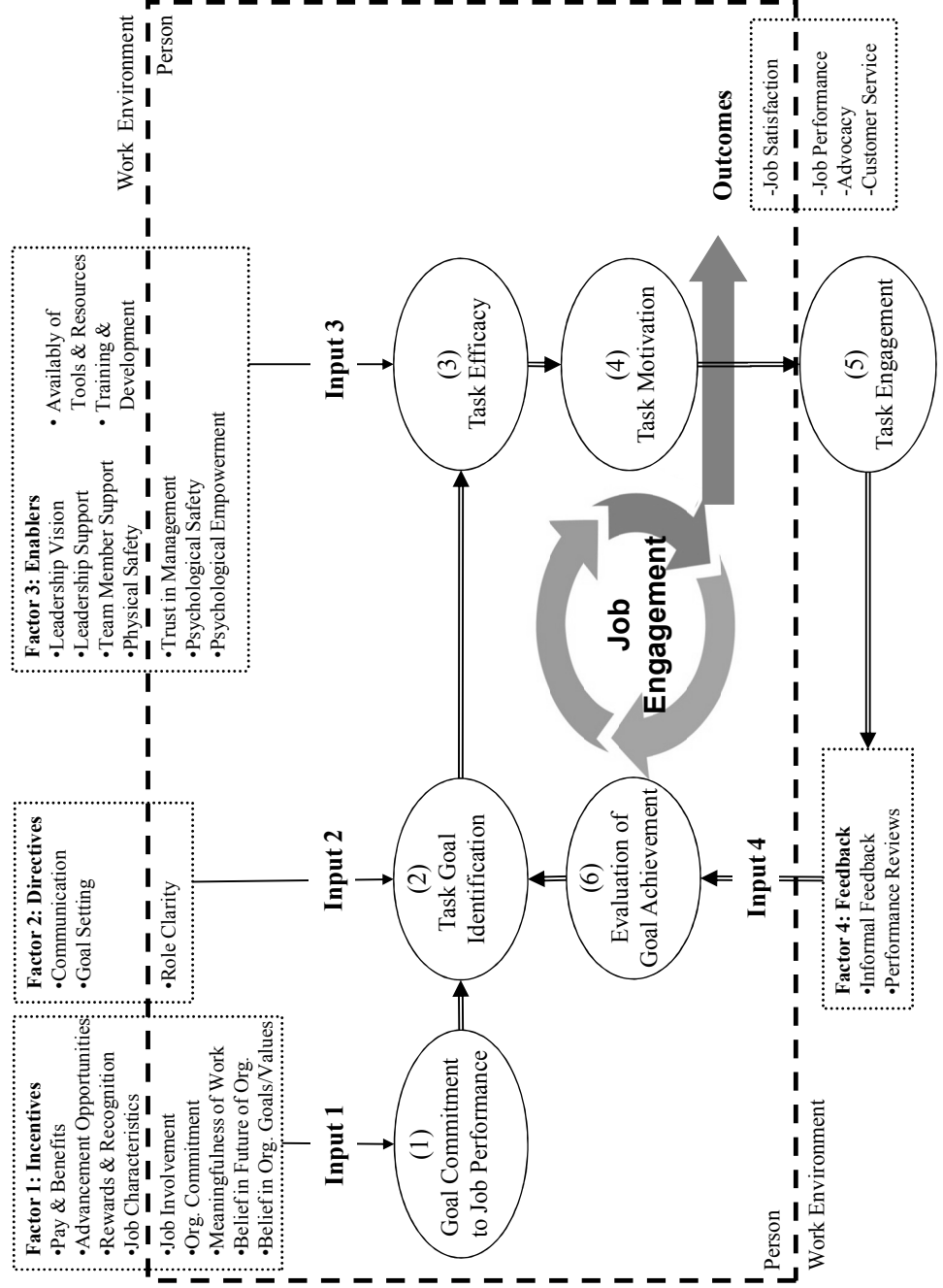
The final step involves feedback. For this research, feedback refers to any type of information perceived by the worker relevant to determining task completion including verbal feedback provided by a supervisor as well as feedback inherent in a task. Step six is the fourth and final cognitive evaluative input point into the job engagement process. Two issues can occur at this step that will reduce overall job engagement. The first is a total lack of feedback and the second is receiving feedback that one is not successfully completing the tasks, which will typically cause one to doubt one’s prior self-efficacy assumptions. Conversely, if the feedback suggests the worker has successfully completed the tasks then this is expected to increase the likelihood of future cycles because of its impact on future self-efficacy.

At this point the worker has passed through one full cycle of the cognitive motivational process. In any typical work environment, the worker will now be expected to either continue to complete the same set of tasks over again (e.g., as in an assembly line job) or identify a new set of tasks (e.g., as in a project management job). The important point here is not the types of tasks that are identified but the fact that the way jobs are designed require that a person always be engaged in tasks. So the motivational cycle begins again at step two and the identification of specific tasks.

This concludes the description of a general conceptual model of an active motivational process underlying job engagement. What is needed now is a description of how the constructs within the nomological network for engagement, outlined in Table 4, interact with the underlying motivational process outlined in the conceptual model in Figure 1. The result is the full theoretical model of job engagement presented in Figure 2 below.

Figure 2

Full Theoretical Model of Job Engagement



The constructs within engagement's nomological network listed in Table 4 are organized into four theoretical factors. Each factor corresponds to one of four inputs that impact an ongoing state of job engagement. The full theoretical model is an extension of the conceptual model discussed earlier and as such it contains the same six core steps, four of which are expected to impact directly by each of the four factors labeled: incentives, directives, enablers, and feedback. For example, pay and benefits and rewards and recognition are incentives and thus expected to impact the degree to which a worker will commit to the goal of job performance, while goal setting and role clarity are directives and thus expected to impact task goal identification. The model also provides a delineation between constructs theorized to operate within a person versus those that operate externally to a person. This clarifies which antecedents of engagement are directly within the control of management. For example, the availability of tools and resources is within the control of management, but trust in management is a perception of the worker and cannot be manipulated directly. The link between antecedent factors and the core components of the job engagement cycle are indicated by single lined arrows. The model provides a theoretical explanation of how the antecedents of job engagement interact to create an ongoing state of job engagement and a clear description of the factors that fall within the control of management.

The full theoretical model proceeds in the same basic way as the conceptual model. The interaction between the core components of the job engagement cycle are indicated by double lined arrows. The first step in the

formation of job engagement is that a worker commit to an overall goal of job performance. Once a worker desires to perform well on the job, he or she must identify specific task goals he or she can complete to exhibit job performance, which is step two in the model. Step two is really the first step in the formation of an instance of task engagement because, as mentioned earlier, job performance can never be fully completed; it can only be sustained through the ongoing completion of work tasks. So step two involved the identification of these specific work tasks that, if completed successfully, will exemplify a certain level of job performance.

Provided a worker is able to identify specific work tasks because he or she has access to a sufficient degree of directives such as levels of role clarity, he or she will progress to step three in the cycle and assess his or her total levels of task efficacy for the specific task in question. The degree of positive perceptions at each of the first three steps will impact the strength of task motivation in step four and the subsequent amount of task engagement (i.e., actual effort expended) in step five. Thus, the first three factors (i.e., incentives, directives, and enablers) impact levels of task engagement through their impact on each of the first three steps in the job engagement cycle. It is at this point, however, that the fourth input of feedback is required to complete a full cycle of task engagement. If no feedback is present, a worker will not be able to evaluate goal achievement and the cycle is expected to break down at this point. However, if feedback is present, then the degree of positive feedback in step six will impact the likelihood that a worker will progress through the cycle a subsequent time (i.e., engage in a

subsequent instance of task engagement). Job engagement is the general state that forms out of ongoing consecutive cycles of individual instances of task engagement and is designated by wide gray arrows. Thus, job engagement is broader in scope than the individual events of task engagement. The outcomes of job engagement listed in the model, also indicated by a wide gray arrow, include job satisfaction, job performance, advocacy, and customer service.

Overall, the full theoretical model makes three important contributions to the current thinking on job engagement. First, it identifies the core components of job engagement as goal commitment to job performance, task goal identification, task efficacy, task motivation, task engagement, and evaluation of goal achievement. Second, the model identifies the four key cognitive evaluative input points through which antecedent factors influence job engagement as goal commitment to job performance, task goal identification, task efficacy, and evaluation of goal achievement. Third, the model categorizes the antecedents of job engagement into four broad factors that correspond to each of the four input points and delineates those antecedents specifically under the control of management. Thus, the model can serve as a guide for impacting job engagement as well as a diagnostic outline and a guide for follow-up action.

One can now create more appropriate measures of job engagement than have been previously employed in applied engagement surveys. In a cross sectional analysis, which is common in most survey tools, a simple measure of the potential for job engagement is to multiply scores on measures of each factor: incentives, directives, enablers, and feedback. This would account for the

expected interdependencies between these constructs (e.g., the impact of positive feedback for one instance of task completion on subsequent levels of task efficacy) and also appropriately reflect the fact that an absence of any one of these constructs would ultimately mean an absence of job engagement. A more direct approach is to assess a worker's ongoing willingness to expend effort in the service of accomplishing task goals. Does the worker feel motivated at work in general? This approach targets the underlying motivational core of job engagement. However, since job engagement is an ongoing process, ideally workers' willingness to expend effort at work would be tracked over time and an aggregated measure would be used as the estimate of overall job engagement. This is essentially the same approach as measuring job performance, in which an overall evaluation of performance is estimated for a given period of time. Similarly, by measuring willingness to expend effort over time, the aggregate measure would account for multiple iterations of the job engagement cycle and thus account for perceptions at all input points simultaneously.

Statement of Hypotheses

The fifth and final goal of this research was to empirically test components of the new engagement model. The full theoretical model of job engagement presented in Figure 2 included six general steps that form the motivational process underlying job engagement as well as four input points through which antecedents within engagement's nomological network impact an ongoing state of job engagement. A complete examination of all aspects of the job engagement model was not within the scope of this research study. Rather, this research tested several of the core assumptions of the new model in order to establish the primary theoretical claims of the model and lay the groundwork for future research. Specifically, hypotheses and subsequent analysis in this research focused on establishing four general claims: 1) antecedents of job engagement take four broad forms in the minds of workers: incentives, directives, enablers, and feedback; 2) the impact of incentives, directives, enablers, and feedback on job engagement occurs through four input points into the job engagement cycle by impacting the levels of commitment to job performance, task goal identification, task efficacy, and assessment of goal achievement respectively; 3) the four inputs into the job engagement cycle have a multiplicative impact on task engagement and subsequent outcomes; and 4) job engagement is an individual level variable, but one which operates as a heterogeneous variable with respect to team levels of job engagement consistent with a "frog pond effect" (i.e., group membership will impact individual degrees of job engagement). Table 5 below lists the specific study hypothesis corresponding to each general claim.

Table 5: General Research Claims and Study Hypotheses

General Claim	Study Hypotheses
Claim 1. Antecedents of job engagement take four broad forms in the minds of workers: <i>incentives</i> , <i>directives</i> , <i>enablers</i> , and <i>feedback</i> .	<p>Hypothesis 1a. Perceptions of pay and benefits, advancement opportunities, rewards and recognition, job characteristics, job involvement, organizational commitment, meaningfulness of work, belief in future of organization, and belief in organizational goals and values will load onto a single factor that can be labeled “incentives.”</p> <p>Hypothesis 1b. Perceptions of organizational communication, goal setting, and role clarity will load onto a single factor that can be labeled “directives.”</p> <p>Hypothesis 1c. Perceptions of leadership vision, leadership support, team member support, physical safety, trust in management, psychological safety, psychological empowerment, availability of tools and resources, and training and development will load onto a single factor that can be labeled “enablers.”</p> <p>Hypothesis 1d. Perceptions of the informal feedback and formal performance reviews will load onto a single factor that can be labeled “feedback.”</p>

Table 5: General Research Claims and Study Hypotheses continued

General Claim	Study Hypotheses
<p>Claim 2: The impact of incentives, directives, enablers, and feedback on job engagement occurs through four input points into the job engagement cycle by impacting the levels of commitment to job performance, task goal identification, task efficacy, and assessment of goal achievement respectively.</p>	<p>Hypothesis 2a. The relationship between incentives and task engagement will be fully mediated by levels of commitment to job performance.</p> <p>Hypothesis 2b. The relationship between directives and job performance will be fully mediated by levels of task goal identification.</p> <p>Hypothesis 2c. The relationship between enablers and job performance will be fully mediated by levels of task efficacy.</p> <p>Hypothesis 2d. The relationship between feedback and job performance will be fully mediated by levels of task goal identification.</p>
<p>Claim 3: The four inputs into the job engagement cycle have a multiplicative impact on job engagement and subsequent outcomes.</p>	<p>Hypothesis 3a. A multiplicative computation of job engagement potential will be a significantly stronger predictor of task engagement than an additive computation.</p> <p>Hypothesis 3b. A multiplicative computation of job engagement potential will be a significantly stronger predictor of job performance than an additive computation.</p>
<p>Claim 4. Job engagement is an individual level variable, but one which operates as a heterogeneous variable with respect to team levels of job engagement consistent with a “frog pond effect” (i.e., group membership will impact individual degrees of job engagement).</p>	<p>Hypothesis 4a. Group membership will be a significant predictor of job engagement potential.</p> <p>Hypothesis 4b. The relationship between group levels of job engagement potential and individual levels of job engagement potential will be fully mediated by the degree to which the individual experiences team enablers.</p>

CHAPTER II

METHOD

Data for this study were drawn from an applied survey conducted in March of 2008 at a Fortune 500 company with employees located in all 50 states in the United States and operations across Canada. The survey was created by an external Human Resources consulting firm well known in the industry for producing engagement surveys. The majority of survey items were taken directly from the firm's database to allow for comparison to broader industry norms. As a result, the survey items are typical of those used in applied engagement surveys and measure the majority of the constructs included in the full theoretical model presented in Figure 2. The constructs not directly targeted by any of the survey items in this study are: job characteristics, meaningfulness of work, leadership vision, and leadership support.

Research Participants

All participants were employees at the company. At the time of the survey, the employee population was 30,662 employees. All were asked to complete the survey, of which 22,448 completed the survey for a total response rate of 73%. Of the participants who completed the survey, 55.3% were male, 44.7% were female. The ethnicities of the participants included 65.2% White, 11.6% Hispanic/Latino, 10.2% Black/African American, 7.5% unknown, 4.2% Asian, 0.6% Two or More Races, 0.6% American Indian or Alaskan Native, and 0.2% Native Hawaiian or Pacific Islander. The age ranges for participants included 29.7% under age 25

years of age, 27.2% between 25 and 35, 20.3% between 36 and 45, 15.4% between 46 and 55, and 7.4% over the age of 55.

Measures

The set of survey items used for the present study are listed in Appendix A, bulleted in italics and grouped and under the construct the items were assumed to measure. Construct names are italicized and constructs are further categorized into four broad groups: the core components of job engagement, antecedent of goal commitment to job performance, antecedent of role clarity, and antecedent of self-efficacy. Survey respondents rated their degree of agreement to each survey item on a standard five point Likert scale (i.e., strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). Where the term “this company” appears in the item texts, survey respondents would have seen the actual name of their company.

Consistent with the common measurement approach employed by applied survey consulting firms, many of the constructs the survey purports to measure are targeted by only one or two items (e.g., “I am satisfied with my opportunities for advancement” is the only survey item used to measure advancement opportunities). The lack of scientifically constructed scales within this applied measure is certainly one limitation of the present research. On the other hand, this approach lends credibility to the practical implications of this research within the applied domain where these forms of measures are commonplace. In addition, the hypotheses presented above argue for categorizing survey items into four general factors that encompass multiple constructs (e.g., perceptions regarding pay and

benefits, rewards and recognition, and advancement opportunities are all theorized to fall under the general factor of incentives).

For the purposes of this study, survey items were grouped into scales directed at measuring each of the four broad factors of incentives, directives, enablers, and feedback. Because of the large number of survey items that were categorized as forms of enablers, four subscales within the broader enablers factor were created: personal enablers, managerial enablers, team enablers, and organizational enablers. Additional items were used to create scales measuring several of the core components of the job engagement cycle including commitment to job performance, task goal identification, task efficacy, and task engagement. This approach allowed for scales comprised of no fewer than two survey items, allowing for minimally acceptable degrees of internal consistency. The full set of scales organized by the general construct each is purported to measure is shown in Appendix A. An overview of each scale is provided below, including a computation of Cronbach's alpha for the scores on each scale. Certain items (denoted by an asterisk following the item in Appendix A) were developed specifically for certain business units and were not asked of all participants. Therefore, sample sizes for each scale range from a maximum $n = 19150$ to a minimum $n = 1156$ depending upon the scale. This represents one limitation of the present research that will be expanded upon in the results section to follow.

Incentives was measured by eight items (e.g., "I am proud to work for this company" and "I am satisfied with my opportunities for advancement"). Cronbach's alpha for the scores on this scale measured .88, $n = 19150$.

Directives was measured by three items (e.g., “I feel well informed about what is expected in my job” and “I receive the information and communication I need to do my job effectively”). Cronbach’s alpha for the scores on this scale measured .84, $n = 19150$.

Personal Enablers was measured by five items (e.g., “I have the training I need to do my job effectively” and “I have access to the resources I need to do my job effectively”). Cronbach’s alpha for the scores on this scale measured .85, $n = 19150$.

Managerial Enablers was measured by four items (e.g., “My manager treats me with respect and dignity” and “I trust my manager”). Cronbach’s alpha for the scores on this scale measured .93, $n = 19150$.

Team Enablers was measured by five items (e.g., “There is a strong sense of teamwork among the associates at this location” and “The people I work with do their very best for this company”). Cronbach’s alpha for the scores on this scale measured .89, $n = 19150$.

Organizational Enablers was measured by five items (e.g., “This company is committed to providing equal opportunities for all associates” and “I can report unethical practices without fear of reprisal”). Cronbach’s alpha for the scores on this scale measured .89, $n = 19150$.

Feedback was measured by two items (e.g., “I understand how my performance has been evaluated” and “My performance has been evaluated fairly”). The Pearson R correlation between these times was .73, $n = 19150$.

Goal Commitment to Job Performance was measured by two items (e.g., “It is important to me to feel successful in my job” and “I am motivated to succeed in my job”). These items were only asked of a subset of the survey participants. The Pearson R correlation between these times was .46, $n = 1158$.

Task Goal Identification was measured by three items (e.g., “My manager clearly communicates what is expected of me” and “I can see a clear link between my work and my business unit’s objectives”). These items were only asked of a subset of the survey participants. Cronbach’s alpha for the scores on this scale measured .80, $n = 875$.

Task Efficacy was measured by two items (e.g., “I feel I have what it takes to be successful in my job” and “I can always manage to solve problems in my job if I try hard enough”). These items were only asked of a subset of the survey participants. The Pearson R correlation between these times was .60, $n = 1660$.

Task Engagement was measured by three items (e.g., “I work hard for this company every day” and “Time passes quickly when I am at work”). These items were only asked of a subset of the survey participants. Cronbach’s alpha for the scores on this scale measured .73, $n = 1156$.

Job performance was measured using the most recent annual performance review. The survey data were collected two months after the completion of annual performance reviews. These review ratings represented the best available measure of a worker’s overall performance at the time he or she responded to the survey. Annual performance review ratings were provided the person direct supervisor in a single overall rating on the following five point rating scale (with “Outstanding”

represented the highest possible rating on performance and “Unsatisfactory” the lowest possible rating):

5 = Outstanding

4 = Exceeds Expectations

3 = Meets Expectations

2 = Below Expectations

1 = Unsatisfactory

Procedure

All employees at the company were asked to take the survey online during a two week period in March of 2008. Participation was strongly encouraged, but was fully optional. Protections were put in place to ensure no one within the company or the external Human Resource consulting firm that conducted the survey could track responses back to a specific individual. Employees were provided on opportunity to take the survey on company time and were compensated for the time it took to complete the survey. Employees took the survey using a personal computer or computer kiosk online via an externally hosted website run by the survey administrator. The survey took between 12 and 20 minutes to complete. For the purposes of this research, all data were archival in nature and was provided to the researcher by the company in a single data file. No identifying information was provided in that file that allowed the researcher to track responses back to a specific individual.

CHAPTER III

RESULTS

The study hypotheses were tested in four broad phases of analysis corresponding to each of the four general claims: 1) antecedents of job engagement take four broad forms in the minds of workers: incentives, directives, enablers, and feedback; 2) the impact of incentives, directives, enablers, and feedback on job engagement occurs through four input points into the job engagement cycle by impacting the levels of commitment to job performance, task goal identification, task efficacy, and assessment of goal achievement respectively; 3) the four inputs into the job engagement cycle have a multiplicative impact on job engagement and subsequent outcomes; and 4) job engagement is an individual level variable, but one which operates as a heterogeneous variable with respect to team levels of job engagement consistent with a “frog pond effect” (i.e., group membership will impact individual degrees of job engagement).

Analysis Phase One

The first phase of the analyses tested the dimensionality of the antecedents of job engagement. Hypotheses 1a through 1d predicted an incentives factor, a directives factor, an enablers factor, and a feedback factor respectively. These first four hypotheses were tested simultaneously using a confirmatory factor analysis approach. Survey items were examined and rationally organized into the scales consistent with the expectations of the model. Items directed at the measurement

of perceptions concerning pay and benefits, advancement opportunities, rewards and recognition, job characteristics, job involvement, organizational commitment, meaningfulness of work, belief in the future of the organization, and belief in the organization's goals and values were included under the incentives factor. Items measuring perceptions regarding organizational communication, goal setting, and role clarity were included under the directives factor. Items measuring perceptions regarding leadership vision, leadership support, team member support, physical safety, trust in management, psychological safety, psychological empowerment, availability of tools and resources, and training and development were included under the enablers factor. Finally, any items measuring perceptions regarding informal and formal feedback were included under the feedback factor. Table 6 below contains the proposed factor structure and survey items measuring antecedent variables composing each factor. Evidence supporting this factor structure was considered general support for Hypotheses 1a through 1d.

Table 6: Proposed Four Factor Model of Antecedent Constructs

Factor	Survey Items
Factor 1: Incentives	<ol style="list-style-type: none"> 1. I am proud to work for this company. 2. I rarely think about looking for a new job with another company. 3. I am satisfied with my opportunities for advancement. 4. I have a long-term career goal with this company. 5. I believe this company has an outstanding future. 6. Senior Leadership at this company has a clear strategy for competing in the future. 7. I am satisfied with the recognition I receive for doing a good job. 8. This company values my contribution.
Factor 2: Directives	<ol style="list-style-type: none"> 1. I feel well informed about what is expected in my job. 2. I receive the information and communication I need to do my job effectively. 3. I am kept informed about the important activities within this company.
Factor 3: Enablers	<ol style="list-style-type: none"> 1. I have the training I need to do my job effectively. 2. I have access to the resources (e.g. materials, equipment, technology, etc.) I need to do my job effectively. 3. I am encouraged to develop new ideas and better ways of serving customers. 4. This company's associates are encouraged to share new ideas. 5. Associates at this company are encouraged to be innovative, that is, to encourage new and better ways of doing things. 6. My manager treats me with respect and dignity. 7. My manager is an effective leader. 8. I trust my manager. 9. My manager really cares about my well-being. 10. There is a strong sense of teamwork among the associates at this location. 11. The people I work with operate with a sense of urgency. 12. The people I work with do their very best for this company. 13. In my work group, we consistently focus on doing the highest quality work. 14. The people I work with are passionate about their jobs. 15. Associates here are treated fairly without regard to race, color, sex, age, national origin, religion or disability. 16. This company is committed to providing equal opportunities for all associates. 17. I feel free to discuss diversity issues at work. 18. I can report unethical practices without fear of reprisal. 19. Where I work, ethical issues and concerns can be discussed without negative consequences.
Factor 4: Feedback	<ol style="list-style-type: none"> 1. I understand how my performance has been evaluated. 2. My performance has been evaluated fairly.

In addition to examining the statistical fit of the proposed four factor model, a null single factor model was also developed consisting of all items loading onto a single factor. This null single factor model represents a theoretical view that workers form a general unified perception of their entire work environment (Harter & Schmidt, 2008). By contrast, Hypotheses 1a through 1d state that a workers' levels of engagement is influenced by four broad perceptions regarding their work environment, including cognitive evaluations of incentives, directives, enablers, and feedback. Therefore, it was important to test both factor structures within this study in order to compare the theoretical factor structure with a null single factor model.

LISREL 8.80 was used to conduct the confirmatory factor analysis (Joreskog & Sorbom, 1993). The majority of respondents answered all survey items in the analysis so it was possible to employ a listwise deletion method to deal with the issue of missing data and still retain a final data set for the analysis with $n = 19150$. Both the four factor model and the null single factor model converged in 14 iterations. The null single factor was a poor fit of these data with a $\chi^2(434, n = 19150) = 131536.21, p < .001$ (GFI = .63; AGFI = .57; RMSEA = .15; NFI = .91; CFI = .91; IFI = .91). While the proposed four factor model represented a better fit of these data than the alternative single factor model, neither model represented a strong overall fit. Fit statistics for the proposed four factor model were a $\chi^2(428, n = 19150) = 108850.86, p < .001$ (GFI = .67; AGFI = .62; RMSEA = .13; NFI = .93; CFI = .93; IFI = .93). The factors were allowed to correlate within the four factor model. The large sample size is the primary

cause of the large chi-square, however, the goodness of fit index of .67 for the proposed model was well below the conventionally acceptable level of .90 (Salanova et al., 2005). Similarly, the root-mean square error of approximation (RMSEA) for the proposed model was .13, which is substantially larger than the .08 mark typically thought to indicate a strong fit (Joreskog & Sorbom, 1993). As a result, an alternative seven factor model was constructed that retained the basic factor structure of the proposed model, but which breaks Factor 3 (Enablers) into the four subfactors of personal enablers, managerial enablers, team enablers, and organizational enablers. This approach refines the predictions represented in the full theoretical model of job engagement, while retaining the overall predicted factor structure. The alternative seven factor model of survey items measuring antecedents of job engagement is presented in Table 7 below and corresponds to the organization of the survey items presented in Appendix A. Again, factors one, two, and four (incentives, directives, and feedback respectively) are organized in the identical way in Table 7 as they were in the proposed model in Table 6. The only change in Table 7 is the division of the third factor of enablers into four subfactors.

Table 7: Alternative Seven Factor Model of Antecedent Constructs

Factor	Survey Items
Factor 1: Incentives	<ol style="list-style-type: none"> 1. I am proud to work for this company. 2. I rarely think about looking for a new job with another company. 3. I am satisfied with my opportunities for advancement. 4. I have a long-term career goal with this company. 5. I believe this company has an outstanding future. 6. Senior Leadership at this company has a clear strategy for competing in the future. 7. I am satisfied with the recognition I receive for doing a good job. 8. This company values my contribution.
Factor 2: Directives	<ol style="list-style-type: none"> 1. I feel well informed about what is expected in my job. 2. I receive the information and communication I need to do my job effectively. 3. I am kept informed about the important activities within this company.
Factor 3a: Personal Enablers	<ol style="list-style-type: none"> 1. I have the training I need to do my job effectively. 2. I have access to the resources (e.g. materials, equipment, technology, etc.) I need to do my job effectively. 3. I am encouraged to develop new ideas and better ways of serving customers. 4. This company's associates are encouraged to share new ideas. 5. Associates at this company are encouraged to be innovative, that is, to encourage new and better ways of doing things.
Factor 3b: Managerial Enablers	<ol style="list-style-type: none"> 1. My manager treats me with respect and dignity. 2. My manager is an effective leader. 3. I trust my manager. 4. My manager really cares about my well-being.
Factor 3c: Team Enablers	<ol style="list-style-type: none"> 1. There is a strong sense of teamwork among the associates at this location. 2. The people I work with operate with a sense of urgency. 3. The people I work with do their very best for this company. 4. In my work group, we consistently focus on doing the highest quality work. 5. The people I work with are passionate about their jobs.
Factor 3d: Organiza- tional Enablers	<ol style="list-style-type: none"> 1. Associates here are treated fairly without regard to race, color, sex, age, national origin, religion or disability. 2. This company is committed to providing equal opportunities for all associates. 3. I feel free to discuss diversity issues at work. 4. I can report unethical practices without fear of reprisal. 5. Where I work, ethical issues and concerns can be discussed without negative consequences.
Factor 4: Feedback	<ol style="list-style-type: none"> 1. I understand how my performance has been evaluated. 2. My performance has been evaluated fairly.

As in the case of the four factor model, the factors in the seven factor model were also allowed to correlate in the confirmatory factor analysis. Factor loadings of survey items for the alternative seven factor model are shown in Appendix B. The alternative seven factor model provides an acceptable fit of these data and clearly represents the best fit among the three models with a χ^2 (413, n = 19150) = 41522.33, $p < .001$ (GFI = .86; AGFI = .84; RMSEA = .07; NFI = .98; CFI = .98; IFI = .98). While the goodness of fit and adjusted goodness of fit indices do not surpass the recommended .90 threshold, they still represent an acceptable fit. The same is true of a root-mean square error of approximation of .07. In addition, the normed fit index, the comparative fit index, and the incremental fit index suggest a strong model fit. Like the four factor model, the factors within the alternative seven factor model were allowed to correlate in the analysis. The intercorrelations of the factors are shown in Table 8 below.

Table 8: Intercorrelations of Factors within the Alternative 7-Factor Model

Factor	<i>N</i>	1	2	3a	3b	3c	3d	4
Factor 1: Incentives	19150	–						
Factor 2: Directives	19150	.79**	–					
Factor 3a: Personal Enablers	19150	.77**	.78**	–				
Factor 3b: Managerial Enablers	19150	.64**	.69**	.63**	–			
Factor 3c: Team Enablers	19150	.68**	.70**	.58**	.59**	–		
Factor 3d: Organizational Enablers	19150	.68**	.71**	.60**	.63**	.60**	–	
Factor 4: Feedback	19150	.69**	.78**	.66**	.65**	.59**	.63**	–

** Correlation is significant at the 0.01 level (2-tailed).

A full comparison of the fit statistics for the null single factor, the theoretical four factor model, and the alternative seven factor model are shown in Table 9 below.

Table 9: Confirmatory Factor Analysis Fit Statistics of Study Models

Model	χ^2	<i>df</i>	<i>p</i>	GFI	AGFI	RMSEA	$\Delta\chi^2$	<i>df</i>
M1	131536.21	434	.00	.63	.57	.15		
M2	108850.86	428	.00	.67	.62	.13	M1-M2=2685.35**	6
M3	41522.33	413	.00	.86	.84	.07	M2-M3=67328.53**	15

Note. M1= Null Single Factor Model; M2= Proposed Four Factor Model; M3=Alternative Seven Factor Model; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; RMSEA = root-mean square error of approximation; $\Delta\chi^2$ = change in chi-square.

These results first and foremost provide general support for the multifactor structure proposed in the full theoretical model of job engagement in Figure 2 and fail to support a single factor model. With regard to the specific hypotheses, these results provide support for Hypothesis 1a and an incentives factor, Hypothesis 1b and a directives factor, and Hypothesis 1d and a feedback factor. Hypotheses 1c, which predicted a single enablers factor was only partially supported. While the results support a grouping the enabling factors separate from the other three factors of incentives, directives, and feedback, the results suggest a further delineation of these enabling factors into the four subfactors of personal enablers, managerial enablers, team enablers, and organizational enablers is most appropriate.

Analysis Phase Two

Phase two of the analyses tested the impact of incentives, directives, enablers, and feedback on the job engagement process through the four input

points of commitment to job performance, task goal identification, task efficacy, and assessment of goal achievement. Hypotheses 2a through 2h predict a series of mediation effects consistent with the full theoretical model in Figure 2. Tests of mediation in this study followed the conventional approach outlined in Baron and Kenny (1986) as well as Shrout and Bolger (2002) who recommend an additional significance test of the indirect effect of the mediation model using the Sobel (1982) test. To do so, analyses were conducted using an SPSS macro developed by Preacher and Hayes (2004) that computes the outputs for each step outlined in Baron and Kenny (1986) as well as the Sobel test of the indirect effect (c.f. Cole, Walter, & Bruch, 2008 for a recent example of this approach published in the *Journal of Applied Psychology*). Descriptive statistics and intercorrelations of the study variables relevant to analysis phase two are presented in Table 10.

Table 10: Descriptive Statistics and Intercorrelations of Study Variables

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12
1 Incentives	3.55	.88	19150	–											
2 Directives	3.87	.84	19150	.69**	–										
3 Personal Enablers	3.87	.80	19150	.73**	.76**	–									
4 Manager Enablers	4.06	.96	19150	.59**	.62**	.60**	–								
5 Team Enablers	3.79	.85	19150	.63**	.64**	.63**	.56**	–							
6 Organizational Enablers	4.05	.86	19150	.63**	.63**	.62**	.69**	.58**	–						
7 Feedback	3.83	.93	19150	.61**	.67**	.61**	.58**	.53**	.56**	–					
8 Commitment to Job Performance	4.55	.57	1159	.41**	.36**	.38**	.34**	.36**	.38**	.35**	–				
9 Task Goal Identification	4.02	.66	931	.58**	.72**	.62**	.56**	.50**	.56**	.63**	(a)	–			
10 Task Efficacy	4.29	.70	1660	.41**	.41**	.43**	.29**	.36**	.34**	.34**	(a)	(a)	–		
11 Task Engagement	4.45	.55	1159	.40**	.33**	.34**	.25**	.39**	.29**	.24**	.59**	(a)	(a)	–	
12 Job Performance	3.14	.54	3680	.02	.03	.02	.03	-.01	-.01	.02	-.10	.15	.12*	-.03	–

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

(a) Correlation cannot be computed because n = 0 for this analysis.

Hypotheses 2a through 2d deal with the four theoretical input points through which the four antecedent factors impact the underlying job engagement cycle. Because of limitations in the applied survey design that provided data for this study, a measure of job engagement consistent with the theoretical approach of this study was not available. As a result, Hypotheses 2a through 2d focused on either task engagement or job performance as the outcome variable of interest to test the proposed mediation relationships. The same group of participants responded to items that compose the scales of incentives, commitment to job performance, and task engagement so it was possible to test the mediating effects of commitment to job performance predicted in Hypothesis 2a using task engagement as the outcome variable of interest. However, this was not possible for the mediation predictions outlined in Hypothesis 2b through 2d because participants did not respond to all survey items that compose each of these scales (in particular the task engagement scale). As a result, job performance was used as the outcome variable of interest for Hypotheses 2b through 2d. While, job performance is a theoretically more distal variable according to the model, its use in these hypotheses is consistent with the overall theoretical predictions of the model. The distal nature of job performance, and thus the fact that it is more likely to be influenced by other factors outside of the model, is simply a limitation of the present study.

Hypothesis 2a stated that the relationship between incentives and task engagement will be fully mediated by levels of commitment to job performance. Thus, the incentives factor is expected to impact overall job engagement and

subsequent job performance by impacting the degree of commitment to job performance. Table 11 below lists the regression results for the mediation effect of commitment to job performance.

Table 11: Regression Results for Mediation Effect of Commitment on the relationship between Incentives and Task Engagement

Model Variables						
Y - Task Engagement						
X - Incentives						
M - Commitment to Job Performance						
Direct and Total Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	.26	.02	15.00	.00		
b(MX)	.28	.02	15.39	.00		
b(YM.X)	.49	.02	20.08	.00		
b(YX.M)	.13	.02	7.59	.00		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>p</i>
Indirect effect and significance using normal distribution						
Sobel	.14	.01	.12	.16	12.21	.00

Note. $n = 1159$. M = Mediating Variable; b(YM.X) = Y regressed on Mediator while controlling for X. b(YX.M) = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

These results indicate that commitment to job performance partially mediates the relationship between incentives and task engagement based on the pattern of regression analyses recommended by Baron and Kenny (1986). The first of the four analyses [b(YX)] regressed task engagement onto incentives and resulted in a positive significant effect (i.e., incentives significantly predicts task engagement), establishing a relationship between the predictor and outcome variables. The second analysis regressed task engagement onto commitment to job

performance (the proposed mediator) and resulted in a significant positive effect, establishing a relationship between the mediator and outcome variable. The third analysis regressed task engagement onto commitment to job performance, while controlling for incentives. The strong positive b weight of .49 indicates a strong direct relationship between the proposed mediator and the outcome variable. Finally, the fourth analysis regressed task engagement onto incentives while controlling for commitment to job performance. This regression analysis tests for any remaining direct effect the initial predictor has on the outcome variable, while controlling for the mediator. According to Baron and Kenny (1986), significant effects on the first three analyses and then a non-significant effect on this final analysis would indicate a full mediation effect. However, Table 11 shows a small but significant b weight of .13, indicating some relevant direct effects of the predictor on the outcome variable and hence only a partial mediation effect overall. Still, the significantly stronger relationship between commitment to job performance and task efficacy when controlling for incentives indicates a strong (albeit partial) mediation effect and lends some support for Hypothesis 2a. In addition, the Sobel test, which tests the indirect effect of the predictor (incentives) on the outcome variable (task engagement) through the proposed mediator (commitment to job performance) shows a significant indirect effect, which also lends good support for the mediating role of commitment to job performance predicted in Hypothesis 2a.

Hypothesis 2b stated that the relationship between directives and job performance will be fully mediated by levels of task goal identification. Therefore,

directives impacts the job engagement process by way of their impact on task goal identification. Table 12 below lists the regression results for the mediation effect of task goal identification. The result below indicates no direct or mediating effect of task goal identification on the relationship between directives and job performance. In fact, neither of the predictors showed a significant correlation with job performance. Thus, Table 12 demonstrates a lack of support for Hypothesis 2b.

Table 12: Regression Results for Mediation Effect of Task Goal Identification on the Relationship between Directives and Job Performance

Model Variables						
Y - Job Performance						
X - Directives						
M - Task Goal Identification						
Direct and Total Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	.13	.11	1.20	.23		
b(MX)	.56	.08	7.15	.00		
b(YM.X)	.08	.18	0.44	.66		
b(YX.M)	.08	.15	0.56	.59		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>p</i>
Indirect effect and significance using normal distribution						
Sobel	.05	.10	-.16	.25	.43	.67

Note. n = 58. M = Mediating Variable; b(YM.X) = Y regressed on Mediator while controlling for X. b(YX.M) = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Hypothesis 2c stated that the relationship enablers and job performance would be fully mediated by task efficacy. This hypothesis was tested in four separate sets of mediation analyses, one set for each of the four subtypes of

enablers: personal, managerial, team, and organizational. The results are presented in Tables 13 through 16 below.

The results in Table 13 below indicate a significant mediation effect. However, the results do not support a direct effect of personal enablers on job performance [b(YX)], which is a violation of mediation assumptions presented in Baron and Kenny (1986). More recently authors have argued that this direct effect is not necessary to support a conclusion of mediation (c.f., Shrout & Bolger, 2002). The Sobel test provides additional support for an indirect effect of X on the Y variable. In the present case, the Sobel test shows a borderline significant result. Overall, these results provide sufficient support for Hypothesis 2c.

Table 13: Regression Results for Mediation Effect of Task Efficacy on the Relationship between Personal Enablers and Job Performance

Model Variables						
Y - Job Performance						
X - Personal Enablers						
M - Task Efficacy						
Direct and Total Effects	b	SE	t	p		
b(YX)	.04	.03	1.31	.19		
b(MX)	.38	.04	9.11	.00		
b(YM.X)	.08	.04	2.00	.05		
b(YX.M)	.01	.04	0.33	.74		
	Value	SE	LL 95% CI	UL 95% CI	t	P
Indirect effect and significance using normal distribution						
Sobel	.03	.02	-.00	.06	1.95	.052

Note. $n = 375$. M = Mediating Variable; b(YM.X) = Y regressed on Mediator while controlling for X. b(YX.M) = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Table 14 lists regression results for the mediation effect of task efficacy on the relationship between managerial enablers and job performance. The results below show a lack of support for a direct effect of X on the Y variable, but they do provide strong support for the mediation effect of task efficacy on the relationship between managerial enablers job performance. The positive result of the Sobel test provides additional confirmatory evidence of full mediation predicted by Hypothesis 2c.

Table 14: Regression Results for Mediation Effect of Task Efficacy on the Relationship Between Managerial Enablers and Job Performance

Model Variables						
Y - Job Performance						
X - Managerial Enablers						
M - Task Efficacy						
Direct and Total Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	.02	.03	0.94	.35		
b(MX)	.22	.03	6.41	.00		
b(YM.X)	.09	.04	2.19	.03		
b(YX.M)	.01	.03	0.21	.84		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>P</i>
Indirect effect and significance using normal distribution						
Sobel	.02	.01	.00	.04	2.05	.04

Note. $n = 375$. M = Mediating Variable; $b(YM.X)$ = Y regressed on Mediator while controlling for X. $b(YX.M)$ = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Table 15 lists the regression results for the mediation effect of task efficacy on the relationship between team enablers and job performance. The results below again demonstrate a lack of support for a direct effect of X on the Y variable, but

they do provide strong support for the mediation effect of task efficacy on the relationship between team enablers job performance. The significant result of the Sobel test provides additional confirmatory evidence of full mediation effect of task efficacy predicted by Hypothesis 2c.

Table 15: Regression Results for Mediation Effect of Task Efficacy on the Relationship Between Team Enablers and Job Performance

Model Variables						
Y - Job Performance						
X - Team Enablers						
M - Task Efficacy						
Direct and Total Effects						
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	-.03	.03	-0.99	.32		
b(MX)	.29	.04	6.56	.00		
b(YM.X)	.12	.04	2.86	.01		
b(YX.M)	-.07	.04	-1.87	.06		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>P</i>
Indirect effect and significance using normal distribution						
Sobel	.03	.01	.01	.06	2.60	.01

Note. $n = 375$. M = Mediating Variable; $b(YM.X) = Y$ regressed on Mediator while controlling for X. $b(YX.M) = Y$ regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Table 16 lists the regression results for the mediation effect of task efficacy on the relationship between *organizational enablers* and job performance. The results below again demonstrate a lack of support for a direct effect of X on the Y variable, but they provide strong support for the mediation effect of task efficacy on the relationship between organizational enablers job performance. The

significant result of the Sobel test provides additional confirmatory evidence of full mediation predicted by Hypothesis 2c.

Table 16: Regression Results for Mediation Effect of Task Efficacy on the Relationship Between Organizational Enablers and Job Performance

Model Variables						
Y - Job Performance						
X - Organizational Enablers						
M - Task Efficacy						
Direct and Total Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	.02	.03	0.77	.44		
b(MX)	.25	.04	6.31	.00		
b(YM.X)	.09	.04	2.24	.03		
b(YX.M)	.00	.03	0.04	.97		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>p</i>
Indirect effect and significance using normal distribution						
Sobel	.02	.01	.00	.04	2.09	.04

Note. $n = 375$. M = Mediating Variable; $b(YM.X)$ = Y regressed on Mediator while controlling for X. $b(YX.M)$ = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Overall, these results provide strong support for mediation effects predicted in Hypothesis 2c. Therefore, while the evidence of the factor structure tested in Hypotheses 1a through 1d supported the division of *enablers* into four subfactors, the evidence shown provides support for the convergence of these four *enablers* into a single input (Input 3 shown in the Figure 2) that impacts job engagement and subsequent job performance via its impact on levels of task efficacy.

Hypothesis 2d states that feedback impacts the job engagement process by impacting levels of task goal identification. In fact, the full theoretical model in

Figure 2 predicts that feedback impacts the degree to which a worker is able to evaluate task goal achievement, which in turn impacts the need to identify additional task goals. However, an acceptable measure of evaluation of goal achievement was not available for the present study so Hypothesis 2d focuses on the mediating role task goal identification serves in the relationship between feedback and job performance. Table 17 lists the regression results for the mediation effect of task goal identification on the relationship between feedback and job performance. The results below demonstrated a significant relationship between feedback and task goal identification, but the subsequent analyses do not provide support for the mediation effect predicted in Hypothesis 2d. This is due to the overall lack of a significant relationship between either feedback or task goal identification and job performance.

Table 17: Regression Results for Mediation Effect of Task Goal Identification on the Relationship Between Feedback and Job Performance

Model Variables						
Y - Job Performance						
X - Feedback						
M - Task Goal Identification						
Direct and Total Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>		
b(YX)	.04	.12	0.32	.75		
b(MX)	.45	.10	4.54	.00		
b(YM.X)	.18	.16	1.14	.26		
b(YX.M)	-.04	.14	-0.31	.76		
	Value	<i>SE</i>	LL 95% CI	UL 95% CI	<i>t</i>	<i>P</i>
Indirect effect and significance using normal distribution						
Sobel	.08	.07	-.07	.23	1.08	.28

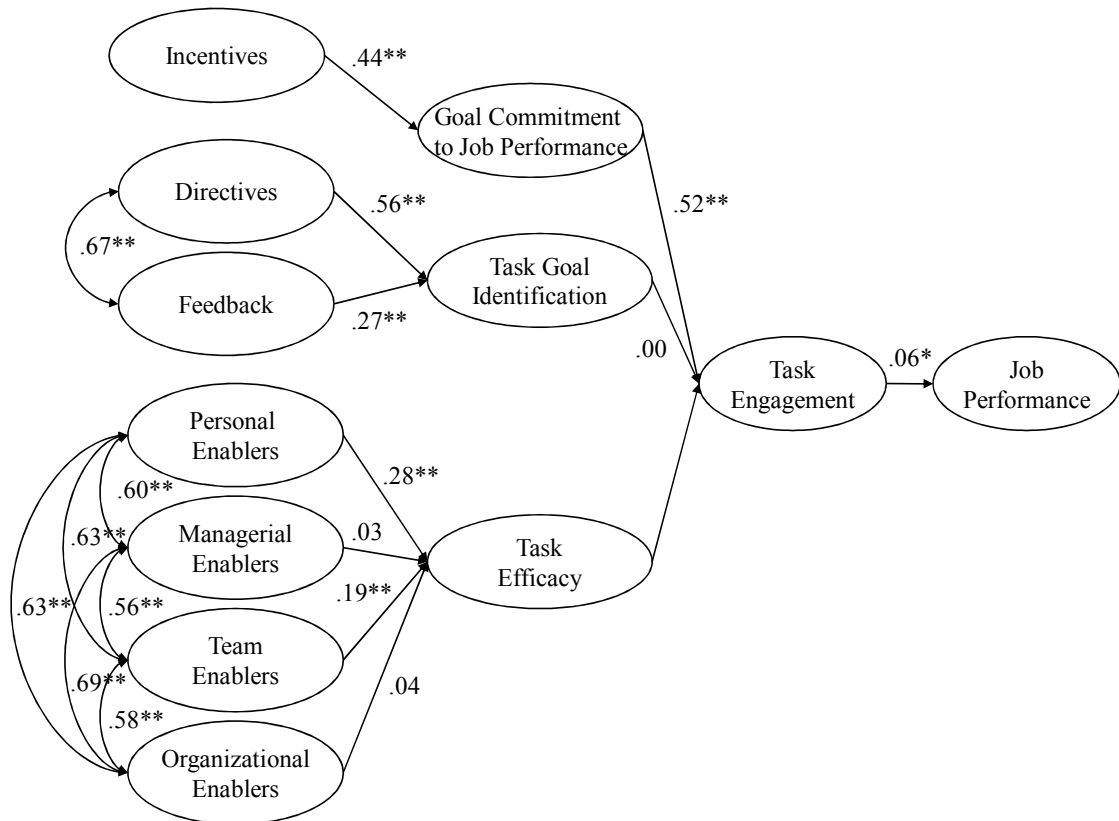
Note. $n = 58$. M = Mediating Variable; b(YM.X) = Y regressed on Mediator while controlling for X. b(YX.M) = Y regressed on X while controlling for the Mediator. Unstandardized regression coefficients are reported. LL = lower limit; CI = confidence interval; UL = upper limit.

Overall, the results shown in Tables 11 through 17 provided mixed support for Hypotheses 2a through 2d. Partial support was provided for Hypothesis 2a, and strong support was provided for Hypotheses 2c, but Hypotheses 2b and 2d were not supported. As a result, an additional test of all relationships predicted in Hypotheses 2a through 2d was conducted using a structural equation modeling approach. Figure 3 below displays the structural equation model predicted in Hypothesis 2a through 2d and implied by the Full Theoretical Model of Job Engagement shown in Figure 2. The difference between the models in Figure 2 and Figure 3 is that the former models the ongoing job engagement process and is

theoretical in nature, while the later is a structural model of the relationships between key variables in the processes observed at any single point in time.

Figure 3

Structural Model of Job Engagement



** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

LISREL 8.80 (Joreskog & Sorbom, 1993) was used to conduct the analysis of the structural equation model shown in Figure 3. It was not possible to employ a listwise deletion approach to deal with the issue of missing data because, as shown in the intercorrelations in Table 10, the items measuring goal commitment to job performance, task goal identification, task efficacy, and task engagement, as well as the measure of job performance, were not all asked of the same survey

respondents. For example, a subgroup of survey respondents provided answers to items measuring task goal identification, but these same respondents were not presented with the items measuring task engagement. This is simply a limitation of the data set available for this research. However, LISREL provides basic estimates of overall model fit accounting for the interrelationship of the variables in the model that are observable. Fit statistics for the proposed structural model in Figure 3 resulted in a $\chi^2 (18, n = 2903) = 57.15, p < .001$ (RMSEA = .03). The ninety percent confidence interval for the RMSEA = (.02; .04), corresponding to a p-value for test of close fit for the RMSEA < .05, indicating a strong model fit. These results are presented as additional support for overall factor structure and relationships of variables predicted by the full theoretical model of job engagement shown in Figure 2.

Analysis Phase Three

The third phase of the analyses concerned the general claim that the four inputs into the job engagement cycle have a multiplicative impact on job engagement and subsequent outcomes. Two computations of the total levels across the four general antecedent factors of job engagement (i.e., incentives, directives, enablers, feedback) were performed; one additive and one multiplicative. Because these four general factors are antecedent environmental and cognitive conditions that impact engagement through respective input points, the resulting overall score that was computed is labeled total “job engagement potential.” Thus, a job engagement potential score can be interpreted as the total potential of the antecedent factors to influence an ongoing state of job engagement. Higher levels

of job engagement potential are expected to result in higher levels of task engagement and subsequent job performance measured at any given point in time. Listwise deletion was employed prior to conducting the analysis to remove any missing data.

The specific steps used to compute the multiplicative form of job engagement potential is as follows: 1) the average score across all items measuring incentives was computed to arrive at an overall incentives score; 2) the average score across all items measuring directives was computed to arrive at an overall directives score; 3) the average score across all items measuring all four forms of enablers was computed to arrive at an overall enablers score; 4) the average score across all items measuring feedback was computed to arrive at an overall feedback score; 5) the overall scores for incentives, directives, enablers, and feedback were multiplied to compute the overall multiplicative job engagement potential score. To compute the additive job engagement potential score the overall scores on incentives, directives, enablers, and feedback were added together (rather than multiplied).

Hypothesis 3a stated that a multiplicative computation of job engagement potential will be a significantly stronger predictor of task engagement than an additive computation. To test this hypothesis three regression analyses were conducted: 1) task engagement regressed onto the additive computation of job engagement potential; 2) task engagement regressed onto the multiplicative computation of job engagement potential; and 3) a multiple regression analysis that first regressed task engagement onto the additive computation of job engagement

potential followed by a combined model with both the additive and multiplicative computation entered into the regression analysis. This third analysis employed the enter method within SPSS allowing the additive computation to be entered into the model first followed by the multiplicative computation. Change statistics were computed to test for incremental prediction of task engagement for the multiplicative computation above and beyond the additive computation.

The results of all three regression analyses are shown in Table 18 below. The first analysis demonstrated that the additive computation is a significant predictor of task engagement. The second analysis demonstrated that the multiplicative computation is also a significant predictor of task engagement, with only a slightly larger R^2 (.02) than the additive computation. The third analysis demonstrated that the change in R^2 of .02, while seemingly small, was in fact statistically significant. Overall these results provide support for Hypothesis 3a.

Table 18: Multiple Regression Results for the Additive and Multiplicative Computations of Job Engagement Potential on Task Engagement

Regression Model	R	R^2	SE	F	p	ΔR^2	$F\Delta$	$p\Delta$
1. Additive Computation	.40	.16	.50	218.70	.00	-	-	-
2. Multiplicative Computation	.42	.18	.50	245.22	.00	-	-	-
3. Multiple Regression	.42	.18	.50	122.80	.00	.02	22.79	.00

Note. $n = 3,584$.

Hypothesis 3b stated that a multiplicative computation of job engagement potential will be a significantly stronger predictor of job performance than an additive computation. This hypothesis was tested in the same way as Hypothesis

3a using three regression analysis: 1) job performance regressed onto the additive computation of job engagement potential; 2) job performance regressed onto the multiplicative computation of job engagement potential; and 3) a multiple regression analysis of job performance regressed first onto the additive computation of job engagement potential followed by a combined model with both the additive and multiplicative computation entered into the regression analysis. Again, the enter method was used within SPSS with the additive computation entered into the model first followed by the multiplicative computation. Results are shown in Table 19 below. In this case, the first regression analysis resulted in a non significant relationship between the additive computation of job engagement potential and job performance. Only the multiplicative computation is shown to be a significant predictor of job performance. In addition, the change in R^2 when the multiplicative computation is added in the third analysis is statistically significant. These results support for Hypothesis 3b.

Table 19: Multiple Regression Results for the Additive and Multiplicative Computations of Job Engagement Potential on Job Performance

Regression Model	R	R^2	SE	F	p	ΔR^2	$F\Delta$	$p\Delta$
1. Additive Computation	.02	.00	.45	1.80	.18	-	-	-
2. Multiplicative Computation	.04	.00	.45	5.00	.03	-	-	-
3. Multiple Regression	.05	.00	.45	4.75	.01	.00	7.70	.01

Note. $n = 3,584$.

Overall, the collective results of the regression analyses above support the use of a multiplicative computation of job engagement potential. In addition, this

provides support for the theoretical claim that the four general antecedent factors of job engagement (i.e., incentives, directives, enablers, feedback) have an interactive effect on one another.

Analysis Phase Four

The fourth phase of the analyses concerned the claim that job engagement is an individual level variable, but one which operates as a heterogeneous variable with respect to team levels of job engagement consistent with a “frog pond effect” (i.e., group membership will impact individual degrees of job engagement). Hypothesis 4a stated that group membership will be a significant predictor of job engagement potential, while Hypothesis 4b further stated that the relationship between group levels of job engagement potential and individual levels of job engagement potential will be fully mediated by the degree to which the individual experiences team enablers. Both hypotheses were tested simultaneously using a mediated regression analysis.

Data used for the analysis were drawn from 170 separate retail store teams (i.e., $k = 170$). The analysis included 2,620 survey respondents across the 170 store teams, ranging from 12 to 26, with an average of 15.40 respondents from each store team. Individual level job engagement potential was computed as the multiplicative result of incentives, directives, enablers, and feedback. The team enablers score was computed for each person as the average score across the team enabler items listed in Appendix A. In order to first test assumptions justifying the aggregation of individual score on job engagement potential, intraclass correlation

coefficients were computed for both job engagement potential and team enablers using store as the grouping variable.

Table 20 below displays the ICC(1) and ICC(2) estimates using the standard computations described in Bliese (1998). The ICC(1) statistic provides an estimate of the variance in individual scores due to group membership, while the ICC(2) provides an estimate of the reliability of group means (Bliese, 1998). Both statistics have a maximum value of 1.00 and in both cases, higher scores are desirable if one wishes to justify aggregation of scores to the group level. LeBreton and Senter (2008) summarize the traditional convention for interpreting ICC(1) estimates as follows: .05 indicates a small effect, .10 indicates a medium effect, and .25 or larger indicate a large effect (i.e., the effect of group members on individual scores). In addition, the conventional cutoff for aggregation to the group level for the ICC(2) estimate is a score of .70 or higher, indicating a high level of reliability of the group means (LeBreton & Senter, 2008).

Table 20: Descriptive Statistics and Intraclass Correlation Estimates for Individual Job Engagement Potential and Team Enablers across Store Teams

	<i>Mean</i>	<i>SD</i>	<i>N</i>	ICC(1)	ICC(2)
Job Engagement Potential	266.58	178.06	2620	.09	.63
Team Enablers	3.85	.87	2620	.09	.62

Note. $k = 170$ stores

Hypothesis 4a stated that group membership will be a significant predictor of job engagement potential. Support of this hypothesis first requires justification of aggregation of job engagement potential scores to the store level in order to use the store average score as meaningful predictor. The results shown in Table 20 provided only moderate support for the aggregation of job engagement potential

scores to the store level. Team enablers showed a similar pattern of ICC estimates. According to these results, store membership explains only nine percent of the variance in individual job engagement potential scores and while this approaches a medium sized effect, it does not justify aggregation to the group level of analysis. In addition, the ICC(2) estimate of .65 indicate only moderate reliability in the store average score of job engagement potential, which also fails to support aggregation to the group level. Group membership does not appear to be a significant predictor of individual job engagement potential and Hypothesis 4a is therefore not supported. As a result, Hypothesis 4b, which stated that the relationship between group levels of job engagement potential and individual levels of job engagement potential will be fully mediated by the degree to which the individual experiences team enablers is also not supported because the necessary condition of aggregation to the store level cannot be justified. A full summary of the results for the study hypotheses is listed in Table 21.

Table 21: Results of Study Hypotheses

Study Hypotheses	Results
Hypothesis 1a. Perceptions of pay and benefits, advancement opportunities, rewards and recognition, job characteristics, job involvement, organizational commitment, meaningfulness of work, belief in future of organization, and belief in organizational goals and values will load onto a single factor labeled “incentives.”	Supported
Hypothesis 1b. Perceptions of organizational communication, goal setting, and role clarity will load onto a single factor labeled “directives.”	Supported
Hypothesis 1c. Perceptions of leadership vision, leadership support, team member support, physical safety, trust in management, psychological safety, psychological empowerment, availability of tools and resources, and training and development will load onto a single factor that can be labeled “enablers.”	Partially Supported
Hypothesis 1d. Perceptions of the informal feedback and formal performance reviews will load onto a single factor that can be labeled “feedback.”	Supported
Hypothesis 2a. The relationship between incentives and task engagement will be fully mediated by levels of commitment to job performance.	Partially Supported
Hypothesis 2b. The relationship between directives and job performance will be fully mediated by levels of task goal identification.	Not Supported
Hypothesis 2c. The relationship between enablers and job performance will be fully mediated by levels of task efficacy.	Supported
Hypothesis 2d. The relationship between feedback and job performance will be fully mediated by levels of task goal identification.	Not Supported
Hypothesis 3a. A multiplicative computation of job engagement potential will be a significantly stronger predictor of task engagement than an additive computation.	Supported
Hypothesis 3b. A multiplicative computation of job engagement potential will be a significantly stronger predictor of job performance than an additive computation.	Supported
Hypothesis 4a. Group membership will be a significant predictor of job engagement potential.	Not Supported
Hypothesis 4b. The relationship between group levels of job engagement potential and individual levels of job engagement potential will be fully mediated by the degree to which the individual experiences team enablers.	Not Supported

CHAPTER IV

DISCUSSION

Major Findings

The fifth and final goal of this research was to empirically test the new job engagement model. The results described above were organized into four general phases, each testing one of the following general claims. Analysis phase one provided empirical support for the general factor structure of the antecedents of job engagement described by the full theoretical model of job engagement presented in this research. This finding represents an important split from other existing approaches to job engagement which either argues for very large numbers of antecedents of job engagement, which is the most common view in the literature and applied domain, or for a single environmental factor impacting engagement, which is the view of the Gallup Organization (Harter & Schmidt, 2008). This finding is perhaps most damaging to the common view that there are many antecedent factors that impact engagement because they demonstrate that workers do not clearly distinguish between these factors in their environment when responding to an engagement survey. For example, respondents did not meaningfully distinguish between opportunities for advancement in a company versus whether their senior leadership has a clear strategy for competing in the future versus the degree to which the company values their contribution, even though these would appear to most researchers and practitioners to be very different constructs (i.e., opportunities for advancement, trust in leadership, and

recognition or rewards). What this research has shown is that workers will provide similar answers to any of the following survey items, causing them to load onto a single overall factor of what was termed incentives.: “I am satisfied with my opportunities for advancement;” “Senior Leadership at this company has a clear strategy for competing in the future;” and “This company values my contribution.”

This finding actually lends support to the basic premise underlying the Gallup Organization’s unified approach to engagement because it shows that in practice most workers do not make the fine distinctions between many aspects of their work environment that are often assumed by psychological research. Additionally this finding may prove far more useful in practice because, as Harter and Schmidt (2008) note, “...a finding that these supposedly distinct constructs are, in fact, perfectly or empirically collinear in the minds of real people in real organization would be a great step forward toward parsimonious explanations of employee attitudes and behavior (p. 37).” And yet, the findings in this research simultaneously disconfirm the theory that workers have a single unified perception or cognitive evaluation of their work environment, by finding seven empirically distinct factors that were labeled in this research as incentives, directives, personal enablers, managerial enablers, team enablers, organizational enablers, and feedback. Therefore, workers appear to neither hold a single unified perception regarding their work environment nor hold a large number of separate and unrelated perceptions. Instead, a limited number of critical perceptions can appear to impact subsequent levels of job engagement and performance. This finding alone is still important for practitioners because it lays out the critical drivers of

job engagement and those aspects of the work environment that should be the focus of management when taking action to impact levels of job engagement.

In the second phase of the analysis, this research sought to test a theoretical explanation of how the seven distinct factors impact job engagement. This research has argued that these seven factors are salient to workers because the true underlying mechanism that links the characteristics of a person's work environment to his or her levels of job engagement and subsequent effort and performance on the job is a cognitive-evaluative motivational process. The theory states that the work environment impacts the motivational process by influencing components of the process at four points, with incentives influencing commitment to job performance, directives influencing task goal identification, personal enablers, managerial enablers, team enablers, and organizational enablers all influencing task efficacy, and feedback influencing evaluations of goal achievement. Working in reverse order, the argument is that a few basic perceptions must be in place for a worker to experience motivational energy and to engage with a task and ultimately a job over time. Workers in turn evaluate their work environments in terms of these basic motivational components, forming a general impression about the aspects of the work environment that influences their perceptions about each component. The result is that worker's experience (and subsequently report on surveys) meaningful distinctions between aspects of their work environment that influence separate components (e.g., incentives versus directives), but do not meaningfully distinguish between specific aspects of the

work environment that influence a single components (e.g., between different types of incentives).

The second phase of the analysis provided additional support for the overall factor structure proposed by the model by showing that the four types of enablers (personal enablers, managerial enablers, team enablers, and organizational enablers) impact outcomes of job engagement via levels of task efficacy. Therefore, despite the fact that workers make meaningful distinctions between the types of enablers in their environment, these factors appear meaningful only in so far as they impact a worker's level of task efficacy consistent with theoretical model of job engagement. What was less clearly established in this study is the proposed theoretical relationship between incentives, directives, and feedback and their respective motivational components of commitment to job performance, task goal identification, and assessment of goal completion. In the case of the last of these proposed links, that of feedback and assessment of goal completion, this study was limited by a lack of survey items measuring goal completion. This is not surprising given that the assessment of goal completion is best measured using a longitudinal study design that can tease apart the differences between perceptions of task goal identification with perceptions of whether one has actually completed the task. The cross-sectional survey design employed in this study neither confirmed nor definitively disconfirmed the proposed relationship between feedback and assessment of goal completions described in the theoretical model of job engagement. Future research will be needed to fully test this proposed relationship.

Some support was provided for the proposed link between incentives and commitment to job performance. The theory proposed in this research argues that incentives impact engagement via their impact on levels of commitment to job performance. The results of this study demonstrated that this is the case, however, it was also seen that incentives have a direct effect on task engagement that is not mediated by levels of commitment to job performance which runs counter to the predictions outlined in the theoretical model of job engagement. It is possible that this apparent direct effect of incentives on the job engagement process (i.e., one that is not being filtered through commitment to job performance) is simply measurement error caused by the very fact that workers do not appear able to make fine distinctions in their perceptions of their work environment, but it would seem more prudent to state that the evidence supporting this aspect of the model are inconclusive within the present study. Future research will be needed to confirm the mediating role of commitment to job performance.

The aspect of the model that gained the least amount of support from the present study was the proposed relationship between directives and task goal identification. Like the other three inputs into the job engagement process, task goal identification was expected to mediate the effects of its respective environmental factor (i.e., directives) on levels of overall job engagement. Definitive conclusions regarding this relationship suffered in part from use of job performance as the outcome variable in the analysis (rather than a more proximal variable such as task engagement) due to a limitation in the survey design. The measure of job performance used in this study did not correlate significantly with

either the measure of directives or the measure of task goal identification. However, this same situation did not prevent confirmatory evidence from being obtained for the mediating role of task efficacy between enablers and job performance, so it seems prudent to conclude that this study does not support the argument that task goal identification is the point at which directives impacts the job engagement process. And yet, given the confirmatory evidence found for other portions of the model, it seems equally prudent to retain this relationship in the model going forward until future research can provide a definitive conclusion. Support for this line of thinking was provided by the strong fit statistics obtained for the structural model presented in Figure 3, which simultaneously tested all of the mediating relationships proposed by the full theoretical model of job engagement, including that of task goal identification.

The third and fourth phases of the analysis focused on the relatively more straightforward claims that a) the four environmental factors of incentives, directives, enablers, and feedback have a multiplicative impact on job engagement, and b) that group levels of engagement impact individual levels of job engagement. This study found evidence supporting both claims. Regarding the first claim, this research showed that a multiplicative computation of scores on each environmental factor was a significantly better predictor of levels of task engagement than an additive computation. This provided general support for the proposed interconnectedness of the model as well as the overall claim that job engagement is an emergent property of the interactions between the components within its underlying motivational mechanism driving the process.

Limitations of the Research

There are two general sets of limitations within this research. The first is the result of the general boundary conditions inherent in the theoretical model of job engagement presented in this study. This research began with the goal of laying out a clearer understanding of the engagement concept as it is used in the extant research and applied domain. Data used in this study were collected via a typical engagement survey conducted in a Fortune 500 corporate environment. As a result, the model developed in this research is primarily intended to describe the formation and ongoing state of a worker's level of engagement with his or her job in a typical corporate work environment.

One specific theoretical limitation of the approach taken in this research is that the model rests on the assumption that a worker is assigned to a typical job that does not have a clearly defined end point since this situation best matches the higher-order maintenance goal of Commitment to Job Performance included in the model. The point was made earlier that one of the most important characteristics of job performance is that it can never be fully achieved; it can only be sustained over time. The model is expected to apply equally well to salaried or hourly pay structures because both forms of jobs typically incentivize workers based on overall job performance across a set period of time. What the model is not specifically designed to predict are temporary jobs such as short-term contract work or consultation projects. Aspects of the model will still likely apply to these work conditions, but an ongoing state of job engagement described in the model is

expected to require an ongoing job. Short-term work conditions fall outside the primary scope of this research model.

More broadly, the model of job engagement proposed in this research is not primarily intended to describe engagement with activities outside of the typical work domain such as engagement with a club, social or religious group or organization, charity and/or philanthropic organizations, or even union membership or professional organizations. The reason again is the lack of the typical structure of a job in most of these groups or organizational settings. While many of the same core components of the engagement model are likely to apply in these settings (e.g., a person still likely needs to receive the four main inputs described in the model of Incentives, Directives, Enablers, and Feedback to maintain engagement), the model is not intended nor expected to be highly predictive of engagement in these settings.

The second general set of limitations in this research concerns the nature of the study itself. The form of data available for this study provided strong external validity because they were collected using a typical applied engagement survey in the exact type of corporate work environment that the research model is intended to describe. However, the limited number of survey items did not allow this study to thoroughly test all aspects of the proposed job engagement model. For example, the items used to measure task engagement were not completed by all participants in the study which placed a limit on the relationships that could be tested within the model. Another significant limitation is the cross-sectional nature of these data that precluded a longitudinal examination of the formation and ongoing

maintenance of a state of job engagement described in the model. One specific issue was that the performance data available (i.e., a key criterion variable) was collected roughly two months prior to the collection of the survey data (i.e., the theoretical antecedents). This is a significant limitation in building a firm foundation for predictive research. Finally, it is common to avoid measures of personality characteristics in applied engagement surveys since these constructs are not highly malleable and thus not actionable from the perspective of management. However, it is reasonable to expect personality variables such as need for achievement or core self-evaluations (Judge et al., 1997) to impact job engagement, but without measures of these characteristics it was not possible to examine this possibility within this research.

Future Research Directions

Following from the limitations of the present study outlined above, future research could add additional insights by examining the following aspects of the theoretical model of job engagement: 1) the longitudinal nature of the job engagement process; 2) the relative importance of the four primary environmental factors impacting job engagement; 3) the impact of personality characteristics on job engagement, and 4) the application of the job engagement model to other activities and settings outside of the work domain.

The job engagement model predicts the emergence of a state of job engagement out of successive cycles through the model, each of which includes an instance of task engagement. To fully examine the efficacy of the model, future research should include longitudinal study designs amenable to testing the

formation of job engagement over time. A simple approach is to collect survey data at shorter intervals, such as weekly, which would allow for an examination of the relative stability of job engagement. Theoretically, measures of job engagement should demonstrate stability over a period of several weeks and even months, with a maximum duration of several years consistent with a state-based construct. A similar line of research should consider focusing on the formation of job engagement. Perhaps the most obvious way to do this in an applied setting is to collect longitudinal data from newly hired employees or from those who recently changed jobs within an organization. A carefully designed laboratory study could also be designed to tease apart the different steps in the formation of job engagement. Conversely, a well designed exit interview used with employees who have freely chosen to leave their job (i.e., fully disengage in the most literal sense) could prove a useful tool in understanding how job engagement decreases over time (e.g., does it tend to decrease gradually or precipitately).

Another line of future research that is likely to prove valuable to practitioners is the careful examination of the relative impact that each of the four primary environmental factors (i.e., incentives, directives, enablers, and feedback) have on job engagement. The analogy used in this research to describe the job engagement process is that of a bicycle wheel, with each environmental factor being one instance of pedaling to propel the wheel forward. The key point is that even if pedaling does not occur for some time the wheel will continue to coast rather than immediately coming to a stop. Another analogy is to think of the four environmental factors impacting job engagement as each representing a water

faucet pouring into a bucket. To ensure the bucket remains full, it is ideal to have all water faucets completely turned on, but even if only two of the facets are turned on completely and the other two are just dripping water a certain minimal water level (i.e., some minimal level of job engagement) is still expected to occur. Future research is needed to more fully examine the efficacy of these analogies. For example, following with the analogy of the water falling into a bucket, are the sizes of faucets of each environmental factor the same or might one, such as enablers, be larger than the others (i.e., have a greater impact on job engagement)? Similarly, will employees continue to expend effort on the job even when one of the factors, such as incentives or feedback, drains down to near zero levels or turns off completely and if so, how long could this occur before an employee's overall levels of job engagement fall significantly? Examining these questions will likely lead to actionable findings that can be applied in organizations, especially during periods when leadership has to manage the organization through significant change.

The first two areas of future examination naturally lead to the question of individual differences and their impact on job engagement. It is reasonable to expect that personality characteristics such as need for achievement, conscientiousness, and core self evaluations would impact a worker's baseline desire to experience success in their job and thus his or her likelihood of forming a strong commitment to job performance. Therefore, these personality characteristics can be expected to compliment the incentives outlined in the job engagement model. A general desire for achievement or a continual need to demonstrate that

one is a responsible and capable person are essentially types of intrinsic incentives that can be expected to impact one's willingness to accept a goal of job performance. Similarly, the personality characteristics of global self-efficacy can be expected to impact any single instance of task efficacy and thus compliments the enablers factor in the job engagement model. Future research would be needed to test these theoretical claims as well as examine the importance of personality characteristics in the formation and maintenance of job engagement overall.

A final recommended area of focus for future research is to examine the extension of the job engagement model to settings outside of the work domain. The most likely extensions are in settings most closely related to work, such as engagement with unionization activity or involvement in a professional organization. It is also reasonable to expect the model to maintain predictive efficacy in an educational setting, what might be termed class engagement or student engagement, because it is performance based settings like that of the work domain. One caution is that classroom work, unlike a job, has a predetermined end point at the end of a quarter, semester, or school year and thus is more similar to contract work or short-term consultation projects. It was already mentioned above that the job engagement model presupposes a typical job without an end point and thus may require modifications to these short-term work settings. However, with some modifications, the theory may prove useful in describing engagement not only in educational settings but also in non-work settings such as clubs, and philanthropic and/or religious organizations.

Research Implications

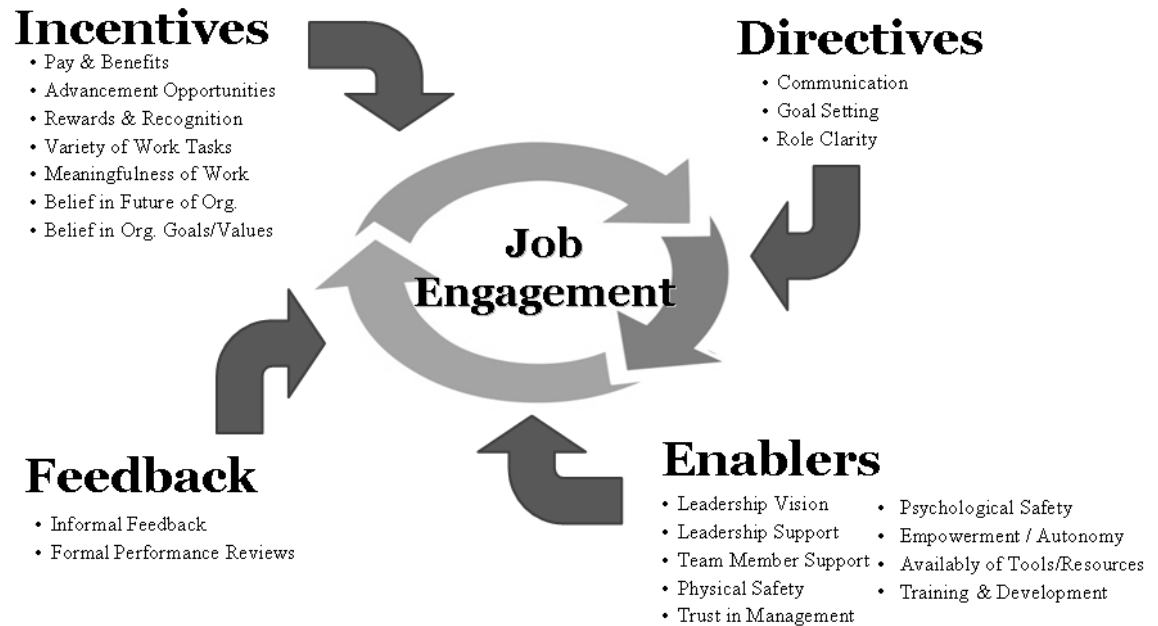
This research holds important implications for both theory and practice. For academic researchers focused on theory development, the intention of this research was to 1) clarify the sources of confusion surrounding the contemporary engagement concept and summarize current areas of agreement; 2) identify the nomological network of engagement; 3) describe the relationship between engagement, motivation, and performance in order to provide a more complete definition of engagement 4) present a new theoretical model of the engagement process, and 5) empirically test components of the new engagement model. At a minimum, this research has laid out many of the common sources of confusion surrounding engagement that should be addressed in any future research on the subject. Any future theories of engagement should also address the role of work motivation. If motivation is not viewed as a core component of engagement then an explanation of the differences between motivation and engagement should be provided. Finally, the job engagement model presented in this research offers what appears to be the most comprehensive theoretical attempt to explain the job engagement process to date. It is hoped that future research will either seek to extend this theory or will strive to offer a competing theory equally as comprehensive.

The implications for practice of this model in the applied domain hold the most promise. This research sought a pragmatic approach to modeling engagement with the intention of creating an actionable theory for practitioners and management in real live organizations. Two important findings of this research are 1) job engagement potential is a significant predictor of job performance and, 2) a

group's levels of job engagement is a significant predictor of the level of engagement of individuals within the group. Thus, the time and effort spent on improving the work environment in ways that will increase job engagement should result in exponential increases in engagement as group levels of engagement increase and subsequent improvements in job performance in the group.

Perhaps the most useful aspect of this theory is the simple classification of the work environment into the four factors of incentives, directives, enablers, and feedback. This approach alone reduces the vast array of supposed "drivers" of engagement, common in most approaches today, into four primary environmental factors. When consulting with management in applied settings, it becomes far more important to discuss these primary environmental factors that management can influence than to discuss the underlying motivational mechanisms outlined in the theoretical model of job engagement. For this reason, the applied model of job engagement shown in Figure 4 below provides a simple outline of the primary environmental factors that impact engagement for management.

Figure 4

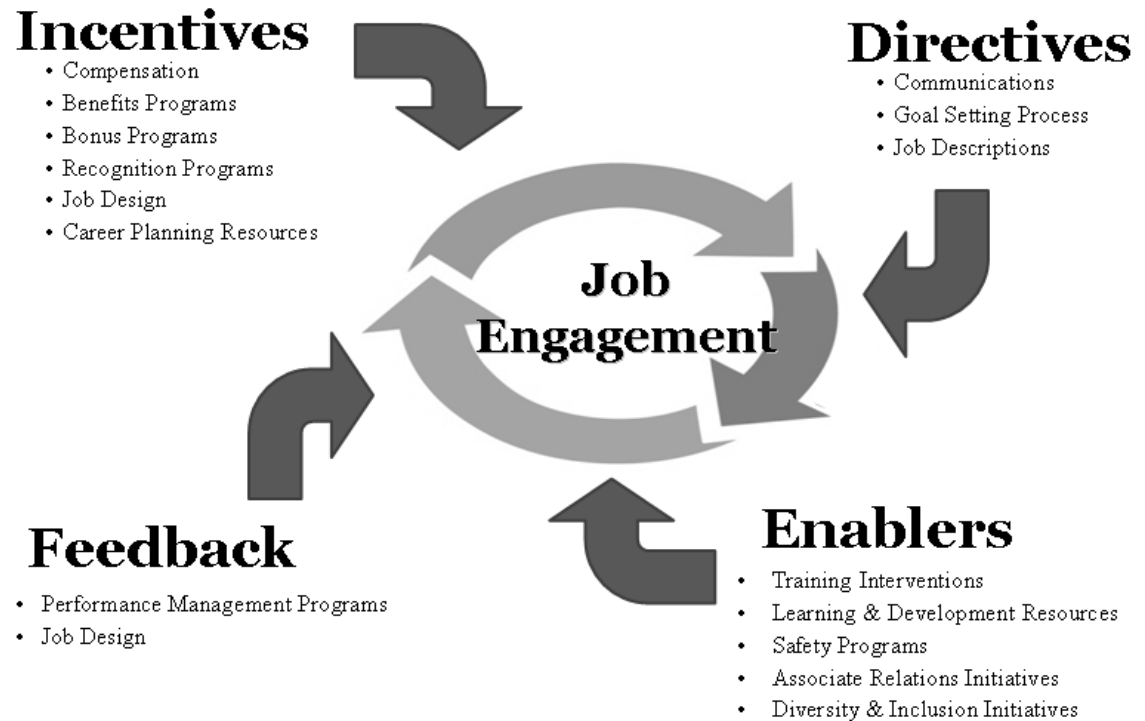
Applied Model of Job Engagement

If practitioners and management simply focus on the four primary environmental factors that drive engagement, the theory can be applied quickly and easily at all levels and in a wide set of cases within organizations. At the organizational level, it is now possible to compute subscores on any typical applied engagement survey to arrive at a score on each of these four environmental factors. This allows management to quickly identify the factor with the lowest score and the one in need of the most action. The survey consultant and management can then focus their time examining the survey items that measure just those constructs composing the factor in need of the greatest work.

More broadly, this research showed that a multiplicative computation across scores on the four factors is a good predictor of job performance. This score

of “engagement potential” is a useful measure of the environmental health of a given department or functional area of an organization and can be used to identify problem areas that need additional human resources support. In a similar vein, use of this model should aid human resource professional to illustrate the linkage between typical human resource processes and programs and the job engagement of workers. It turns out, though perhaps not unexpectedly, that the majority of processes and programs run by human resources department are targeted at the very factors that impact job engagement. Figure 5 below utilizes the same layout as the applied engagement model in Figure 4 above, but replaces the specific factors that impact job engagement with the complimentary human resources processes and programs that link to incentives, directives, enablers, and feedback and ultimately to job engagement. By showing business leaders both Figure 4 and Figure 5, human resource professionals can illustrate the linkage of the primary environmental factors to job engagement and then human resource processes and programs to those environmental factors. In this sense, these models can be used as a tool to help market the value added by the human resource function.

Figure 5

The Linkage of Human Resources Processes to Job Engagement

A simple application of this theory in the applied setting is to consider these four primary factors whenever conducting any form of human resource intervention in an organization. The practitioner is encouraged to add design elements to any intervention that affect these four primary environmental factors. In any interaction with employees it is useful to consider the ways in which the interaction will increase incentives, improve the clarity of directives, provide a greater degree of enablers, or provide valuable feedback. For example, during a training intervention (which will most likely impact personal enablers) it is still important to communicate the value of the training to the associate (i.e., increase

the incentives) and to ensure there are clearly defined success criteria for whatever actions are being trained (i.e., clear directives) along with feedback both during the training and the transfer period onto the job.

Finally, at the individual level, it is possible to apply this theory to create a simple diagnostic tool similar to an engagement survey that a manager could use with his or her own direct reports to understand reasons why they may or may not be highly engaged in their jobs. The same tool could be used as a self-evaluation in the context of a coaching intervention to help an employee understand why he or she may not be feeling a strong desire to put forth effort at work (i.e., what might be missing or might have changed in his or her work environment to impact desire to put forth effort and engage with his or her job). On a more informal level, managers can be trained to consider these four factors when diagnosing possible problem areas in their direct reports' work environment. At any point in time it would likely be useful for a manager to step back and consider whether the work environment of his or her direct reports' is providing a strong degree of incentives, directives, enablers, and feedback and what actions he or she might take to increase the levels of these critical drivers of job engagement. Therefore, the four factor approach laid out in this model holds the greatest promise in applied settings because of its simple representation of the primary factors that impact job engagement.

Conclusion

This research sought to 1) identify the primary sources of confusion surrounding the contemporary engagement concept and summarize current areas of

agreement; 2) identify the nomological network of engagement; 3) describe the relationship between engagement, motivation, and performance in order to provide a more complete definition of engagement 4) present a new theoretical model of the engagement process; and 5) empirically test components of the new engagement model. While several aspects of the model are still in need of additional examination, this research has presented evidence supporting the basic claims of a theoretical model of job engagement that clarifies many of the prior areas of confusion and misperceptions regarding the construct. It is believed that this new model holds significant value for both future research and practice.

CHAPTER V

SUMMARY

Researchers and practitioners appear to have captured something of importance in the concept of engagement. Engagement surveys have been shown to be effective predictors of job performance and other important organizational outcomes, and yet there is clearly no single unifying description or understanding of the engagement concept in the extant literature or applied domain. This research sought to clearly define, operationalize, and model the construct that best represents what researchers and practitioners today intend when they use the term “engagement.” Specifically, the purpose of this research was to make five unique contributions to the current discussion of the engagement concept: 1) identify the primary sources of confusion surrounding the contemporary engagement concept and summarize current areas of agreement; 2) identify the nomological network of engagement; 3) describe the relationship between engagement, motivation, and performance in order to provide a more complete definition of engagement 4) present a new theoretical model of the engagement process; and 5) empirically test components of the new engagement model.

A new comprehensive theoretical model of job engagement was presented that outlined the manner in which the constructs within engagement’s nomological network interact and impact an active cognitive motivational mechanism underlying job engagement. The practical effect of this model was to essentially “pull back the curtain” on the engagement concept to reveal the motivation

mechanism underlying the process. Engagement was more precisely defined in this research as job engagement, *a state of active motivation to perform in one's job, characterized by an ongoing willingness to expend effort in the service of sustaining job performance*. Hypotheses examining specific aspects of the new job engagement model were analyzed using data from a typical applied engagement survey conducted in March of 2008 at a Fortune 500 company with employees located in the United States and Canada. Results demonstrated that job engagement is influenced by the four broad antecedent factors of incentives, directives, enablers, and feedback. These four factors impact job engagement through four input points into the process by impacting a worker's commitment to job performance, task goal identification, task efficacy, and assessment of goal achievement respectively. The primary implication of this research for theoretical research is to clarify areas of confusion in prior research and provide a theoretically sound model of job engagement to guide future research. Practitioners can draw upon the simple four factor structure of the antecedents of job engagement to conduct analyses of survey data and design targeted interventions at all levels within an organization.

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Appendix A: Study Survey Items

Factor1: Incentives

- *I am proud to work for this company.*
- *I rarely think about looking for a new job with another company.*
- *I am satisfied with my opportunities for advancement.*
- *I have a long-term career goal with this company.*
- *I believe this company has an outstanding future.*
- *Senior Leadership at this company has a clear strategy for competing in the future.*
- *I am satisfied with the recognition I receive for doing a good job.*
- *This company values my contribution.*

Factor 2: Directives

- *I feel well informed about what is expected in my job.*
- *I receive the information and communication I need to do my job effectively.*
- *I am kept informed about the important activities within this company.*

Factor 3: Enablers

Factor 3a: Personal Enablers

- *I have the training I need to do my job effectively.*
- *I have access to the resources (e.g. materials, equipment, technology, etc.) I need to do my job effectively.*
- *I am encouraged to develop new ideas and better ways of serving customers.*

- *This company's associates are encouraged to share new ideas.*
- *Associates at this company are encouraged to be innovative, that is, to encourage new and better ways of doing things.*

Factor 3b: Managerial Enablers

- *My manager treats me with respect and dignity.*
- *My manager is an effective leader.*
- *I trust my manager.*
- *My manager really cares about my well-being.*

Factor 3c: Team Enablers

- *There is a strong sense of teamwork among the associates at this location.*
- *The people I work with operate with a sense of urgency.*
- *The people I work with do their very best for this company.*
- *In my work group, we consistently focus on doing the highest quality work.*
- *The people I work with are passionate about their jobs.*

Factor 3d: Organizational Enablers

- *Associates here are treated fairly without regard to race, color, sex, age, national origin, religion or disability.*
- *This company is committed to providing equal opportunities for all associates.*
- *I feel free to discuss diversity issues at work.*
- *I can report unethical practices without fear of reprisal.*
- *Where I work, ethical issues and concerns can be discussed without negative consequences.*

Factor 4: Feedback

- *I understand how my performance has been evaluated.*
- *My performance has been evaluated fairly.*

Goal Commitment to Job Performance

- *It is important to me to feel successful in my job.**
- *I am motivated to succeed in my job.**

Task Goal Identification

- *My manager clearly communicates what is expected of me.**
- *I can see a clear link between my work and my business unit's objectives.**
- *I understand my new role after our business completed the sales reorganizations.**

Task Efficacy

- *I feel I have what it takes to be successful in my job.**
- *I can always manage to solve problems in my job if I try hard enough.**

Task Engagement

- *I always persevere in my work, even when things are not going well.**
- *I work hard for this company every day.**
- *Time passes quickly when I am at work.**

*Note: These items were only answered by a subgroup of participants in the study.

Appendix B: Factor Loadings for the Alternative 7-Factor Model

Survey Items	Factor						
	1	2	3a	3b	3c	3d	4
I am proud to work for this company.	.74						
I rarely think about looking for a new job with another company.	.88						
I am satisfied with my opportunities for advancement.	.84						
I have a long-term career goal with this company.	.82						
I believe this company has an outstanding future.	.83						
Senior Leadership at this company has a clear strategy for competing in the future.	.81						
I am satisfied with the recognition I receive for doing a good job.	.81						
This company values my contribution.	.84						
I feel well informed about what is expected in my job.		.71					
I receive the information and communication I need to do my job effectively.		.84					
I am kept informed about the important activities within this company.		.79					
I have the training I need to do my job effectively.			.55				
I have access to the resources (e.g. materials, equipment, technology, etc.) I need to do my job effectively.			.59				
I am encouraged to develop new ideas and better ways of serving customers.			.75				
This company's associates are encouraged to share new ideas.			.89				
Associates at this company are encouraged to be innovative, that is, to encourage new and better ways of doing things.			.94				
My manager treats me with respect and dignity.				.85			
My manager is an effective leader.				.97			
I trust my manager.				.94			
My manager really cares about my well-being.				.95			
There is a strong sense of teamwork among the associates at this location.					.81		
The people I work with operate with a sense of urgency.					.84		
The people I work with do their very best for this company.					.88		
In my work group, we consistently focus on doing the highest quality work.					.68		
The people I work with are passionate about their jobs.					.82		

Appendix B: Factor Loadings for the Alternative 7-Factor Model continued

Survey Items	Factor						
	1	2	3a	3b	3c	3d	4
Associates here are treated fairly without regard to race, color, sex, age, national origin, religion or disability.						.70	
This company is committed to providing equal opportunities for all associates.						.73	
I feel free to discuss diversity issues at work.						.79	
I can report unethical practices without fear of reprisal.						.91	
Where I work, ethical issues and concerns can be discussed without negative consequences.						.91	
I understand how my performance has been evaluated.							.79
My performance has been evaluated fairly.							.92