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Angela C. Reaves

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

WORK CREATIVITY AS A DIMENSION OF JOB PERFORMANCE

A dissertation submitted in partial fulfillment of the

requirements for the degree of

DOCTOR OF PHILOSOPHY

in

PSYCHOLOGY

by

Angela C. Reaves

2015

To: Dean Michael R. Heithaus
College of Arts and Sciences

This dissertation, written by Angela C. Reaves and entitled Work Creativity as a Dimension of Job Performance, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

Thomas Reio

Leslie Frazier

Valentina Bruk-Lee

Chockalingam Viswesvaran, Major Professor

Date of Defense: March 2, 2015

The dissertation of Angela C. Reaves is approved.

Dean Michael R. Heithaus
College of Arts and Sciences

Dean Lakshmi N. Reddi
University Graduate School

Florida International University 2015

DEDICATION

To my parents, Karen and Eddie.

ABSTRACT OF THE DISSERTATION

WORK CREATIVITY AS A DIMENSION OF JOB PERFORMANCE

by

Angela C. Reaves

Florida International University, 2015

Miami, Florida

Professor Chockalingam Viswesvaran, Major Professor

To stay competitive, many employers are looking for creative and innovative employees to add value to their organization. However, current models of job performance overlook creative performance as an important criterion to measure in the workplace. The purpose of this dissertation is to conduct two separate but related studies on creative performance that aim to provide support that creative performance should be included in models of job performance, and ultimately included in performance evaluations in organizations. Study 1 is a meta-analysis on the relationship between creative performance and task performance, and the relationship between creative performance and organizational citizenship behavior (OCB). Overall, I found support for a medium to large corrected correlation for both the creative performance-task performance ($\rho = .51$) and creative performance-OCB ($\rho = .49$) relationships. Further, I also found that both rating-source and study location were significant moderators. Study 2 is a process model that includes creative performance alongside task performance and OCB as the outcome variables. I test a model in which both individual differences (specifically: conscientiousness, extraversion, proactive personality, and self-efficacy) and job characteristics (autonomy, feedback, and supervisor support) predict creative

performance, task performance, and OCB through engagement as a mediator. In a sample of 299 employed individuals, I found that all the individual differences and job characteristics were positively correlated with all three performance criteria. I also looked at these relationships in a multiple regression framework and most of the individual differences and job characteristics still predicted the performance criteria. In the mediation analyses, I found support for engagement as a significant mediator of the individual differences-performance and job characteristics-performance relationships. Taken together, Study 1 and Study 2 support the notion that creative performance should be included in models of job performance. Implications for both researchers and practitioners alike are discussed.

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CHAPTER I: INTRODUCTION

The study of job performance criteria is a central theme in industrial/organizational psychology. Because of the importance of job performance criteria, continuous examination of the dimensionality and causal models of job performance is essential (Austin & Villanova, 1992). As external and internal changes in organizations occur, the conceptualization of job performance must also change. Current models of job performance (e.g., Campbell, 1990; Murphy, 1990; Viswesvaran, 1993) lack an important performance dimension – creative performance. However, creative performance fits into existing frameworks of job performance (i.e., a stand-alone dimension of performance, Viswesvaran & Ones, 2000). The goal of this dissertation is to address a gap in the literature in expanding dimensionality of job performance by examining the criterion of creative performance and investigating how it correlates with other criterion dimensions. As I address this aforementioned gap, I will also be updating causal models of job performance.

Dimensionality of Job Performance

Existing frameworks on the dimensionality of job performance fall into two categories: stand-alone dimensions and dimensions developed as part of a set of dimensions. Stand-alone dimensions include criteria such as task performance and organizational citizenship behavior (OCB) that are applicable to many, if not all, jobs and occupations. Dimensions developed as part of a set of dimensions include several different dimensions (i.e. written and oral communication, job specific task proficiency; Campbell, 1990) that together make up overall job performance. Several sets of dimensions have been proposed in the literature (cf. Campbell, 1990) but none includes

explicitly the creative performance dimension. Even though these existing taxonomies do not include creative performance, some scholars (e.g., Jex & Britt, 2008) include creative performance in discussions of job performance criteria. Further, research has included creative performance as a criterion of interest alongside other stand-alone performance dimensions (e.g., Binnewies, Sonnentag, & Majza, 2009; Gorgievski, Bakker, & Schaufeli, 2010; Ng & Feldman, 2009). Therefore, this dissertation proposes that creative performance should be considered as a stand-alone dimension of performance as well.

Antecedents of Performance. An abundance of literature in industrial/organizational psychology has been devoted to uncovering which antecedents predict job performance. Findings have concluded that many individual differences (i.e. cognitive ability, Schmidt & Hunter, 1998; personality, Barrick & Mount, 1991, Hertz & Donovan, 2000), job characteristics (i.e. feedback; Fried, 1991), and job attitudes (i.e. job satisfaction; Judge, Thoresen, Bono, & Patton, 2001) are just a sampling of antecedents that predict different performance criteria to varying strengths. Some of these individual differences predict several types of criteria. For instance, conscientiousness has been found to be a predictor of stand-alone dimensions of performance such as OCB (Chiaburu, Oh, Berry, Li, & Gardner, 2011) and also a predictor of overall performance (Barrick & Mount, 1991). Cognitive ability, however, is a strong predictor of job performance (Schmidt & Hunter, 1998), but not a particularly strong predictor of OCB. So an antecedent may predict overall performance, or a stand-alone performance dimension, but it may not necessarily predict all performance criteria. One relevant question that the dissertation intends to answer is whether the same antecedents that

predict other dimensions of performance (i.e. task performance and OCB) also predict creative performance.

Why do Antecedents Predict Performance? As previously discussed, research has identified several predictors of job performance (Barrick & Mount, 1991; Chiaburu, et al., 2011; Fried, 1991; Hurtz & Donovan, 2000; Schmidt & Hunter, 1998), so the question then shifts to ask why do these antecedents predict performance? This is where causal models have been instrumental in uncovering how, why, and under what conditions do certain antecedents predict performance.

Several models have been identified to explain why performance occurs. For example, we know that personality explains some of the variance in job performance (e.g., Barrick & Mount, 1991), and research has expanded on this finding to uncover proximal mechanisms that explain why this relationship occurs. For instance, research has found motivation is a mediator between extraversion/conscientiousness and sales performance (Barrick, Stewart, & Piotrowski, 2002). Goal-setting has been found to mediate the relationship between conscientiousness and performance, where, in essence, individuals high on conscientiousness are more likely to set goals, which then results in higher performance (Barrick, Mount, & Strauss, 1993). Another example that explains why cognitive ability is a predictor of job performance is the work of Schmidt, Hunter, and Outerbridge (1986) who found that general mental ability leads to job knowledge, which leads to higher performance ratings. Higher general mental ability leads to more acquisition of job knowledge, which then leads to better performance.

The above highlights some of the causal models that uncover how and why certain predictors lead to performance by way of more proximal predictors such as

motivation (Barrick et al., 2002), goals (Barrick et al., 1993), or job knowledge (Schmidt et al., 1986). Several other models have been proposed and tested in the existing literature, and research should continue to uncover these mediating mechanisms to help understand the processes by which these antecedents facilitate performance. This dissertation proposes and tests a causal model of performance where the relationship between some of the traditional predictors of performance (i.e. individual differences and job characteristics) and performance criteria (creative performance, task performance, and OCB) is mediated by engagement. For example, receiving feedback about performance would lead to an employee being more engaged in their work, which in turn leads to higher job performance. The relationship between feedback and performance as well as other hypotheses are tested in *Study 2*.

Creative Performance as a Separate Stand-alone Dimension. This dissertation proposes that creative performance is a separate stand-alone dimension of job performance. I test this hypothesis by conducting a meta-analysis of creative performance and two other commonly used stand-alone dimensions of performance found in the literature (task performance and OCB). This is the goal of *Study 1*. After examining that creative performance is a stand-alone dimension of performance, I test whether or not traditional predictors of performance criteria also predict creative performance, or if these antecedents have differential predictions concerning creative performance (*Study 2*). Further, I also aim to uncover how these predictors lead to performance, so I will test a causal model in which engagement mediates the relationship between these predictors and performance (creative performance, task performance, and OCB). Testing the model will help to supplement the existing causal models of job performance by extending them

to a new dimension of job performance (creative performance at work) as well as testing engagement as a mediator.

The remainder of this chapter will elaborate on the above points. First, however, I explain what creative performance is, and why creative performance is an important criterion to examine in the workplace. I will also discuss how creative performance is related to other performance criteria (i.e., task performance and OCB) by examining common antecedents and causal models. I conclude this chapter with some implications of this research and a brief overview of the dissertation.

Creative Performance

Creativity is often defined as something that is novel-original and useful-adaptive (Feist, 1998). Scholars in many different fields have taken several different approaches to examine what creativity is and how to best measure creativity. For instance, some have focused on creativity in a *person* by examining individual differences that creative individuals possess, such as intrinsic motivation (Amabile, 1985). Others have looked at creativity as a *process* and examine the underlying thinking behind creative pursuits. Another approach is looking at the creative *press*, in other words, environments that bring out the most creativity. Finally, many researchers examine creativity as a *product*, something that others can see and judge. These four approaches have been termed the four P's (Runco, 2007). Creative performance in organizations can be thought of as a product, something that can be seen and judged by others (supervisors or coworkers) via performance evaluations.

Why Study Creative Performance? In order to stay competitive, organizations must be increasingly more creative and innovative, which is why it is important to study

creative performance in organizations. Employee creative performance can contribute to organizational effectiveness in several ways. Employee creative performance can improve operations, procedures, products, and services. Studies have found value in creative performance in employees as creativity has been linked to bottom-line financial performance (Eisenhardt & Tabrizi, 1995) and profitability (Geroski, Machin, & Van Reenen, 1993). Beyond these tangible outcomes, Amabile, Schatzel, Moneta, and Kramer (2004) found that opportunities for creative work might lead to more satisfied and intrinsically motivated employees, leading to overall well-being in employees. Research supports the notion that creative performance can enhance the financial performance of organizations as well as improving the well-being of employees. Thus, examining creative performance in organizations can prove to be a fruitful effort for both researchers and practitioners.

Traditionally, creative performance has been studied in jobs where it is most relevant (i.e., scientists, artists, engineers), but researchers now argue that creativity is desirable in all employees in a wide array of jobs (Zhou, 2008), as it can help contribute to organizational effectiveness. There are some jobs that require creative performance (i.e. creating and developing a new and innovative product), but there is room for creative performance in most occupations. For example, in most jobs, employees can find creative solutions to problems or develop new procedures for getting work done. The level of creativity required can differ depending on the job and task, and some jobs require more creativity than others, but there is the potential in all jobs for individuals to be creative (Shalley, 2008).

How is Creative Performance Related to Other Dimensions of Performance?

Some studies have examined creative performance alongside other critical criteria in organizations such as task performance, OCB, and counterproductive work behavior (e.g., Binnewies, Sonnentag, & Mojza, 2009; Ng & Feldman, 2009), and most of these studies propose similar antecedents for all job performance criteria. Beyond this, some theoretical process models of performance, such as those of Bakker and Lieter (2010) suggest a model that includes mediating mechanisms as more proximal predictors of job performance (including creative performance, task performance, and OCB). This suggests that creative performance can share antecedents with other performance criteria and may also be included in causal models of performance alongside other types of performance. In the following sections I will discuss these points in further detail.

Antecedents. Several antecedents of creative performance have been identified in existing literature. Most of these have also been identified as predictors of other types of performance as well. For example, separate studies conclude that self-efficacy is a predictor of creative performance (Dilchert, 2008), task performance (Judge & Bono, 2001), and OCB (Chiu & Chen, 2005). Another antecedent where this parallel is evident is with feedback. Feedback has again been separately found as a predictor of creative performance (Coelho & Augusto, 2010; Noefer, Stegmaier, Molter, & Sonntag, 2009), task performance (Fried, 1991; Vigoda-Gadot & Angert, 2007), and OCB (Chiu & Chen, 2005; Vigoda-Gadot & Angert, 2007). Overall, past findings suggest that similar antecedents can predict creative performance as they do other types of stand-alone performance criteria. Further, if creative performance is related to other dimensions of performance, then each of their accompanying literatures can help to inform each other;

so new antecedents and streams of research can be developed from existing literature on job performance.

Process Mechanism. As stated above, several antecedents have been identified as predictors of creative performance, task performance, and OCB. Beyond this, a model of employee engagement proposed by Bakker and Lieter, (2010) includes creative performance as a criterion, alongside task performance, OCB, and financial turnover as outcomes. Similar to this model (Bakker & Lieter, 2010), this dissertation tests the hypothesis that engagement mediates the relationship between the shared antecedents and performance.

Overall, the evidence overwhelmingly suggests that creative performance shares antecedents with other stand-alone dimensions of performance, suggesting that researchers can use the existing literature on antecedents of job performance to form hypotheses about predictors of creative performance. Further, researchers can also look beyond the validity of antecedents and explore how these antecedents predict creative performance by examining causal models of job performance that include creative performance as a criterion.

Implications of Dissertation

Now I will discuss the importance of the proposed analyses in this dissertation in regards to how they can be used to inform both researchers and practitioners of industrial/organizational psychology in several ways. First of all, the findings can inform performance management practices. If creative performance is indeed a separate dimension of performance, and it is suggested to be relevant to most, if not all jobs (Zhou, 2008) to some degree, then it should be included in performance evaluations. By

including creative performance in performance evaluations, organizations can understand how creative performance relates to organizational effectiveness. Including creative performance in evaluations can also serve as a motivator for employees to be creative, which can result in value for the organization. Secondly, practitioners should be able to use the information gleaned on creative performance to inform selection procedures. If creative performance is an important criterion and used in performance evaluations, then practitioners can select individuals that may be more creative at work. Further, this can help to establish the criterion-related validity of certain predictors of performance, as predictors of this stand-alone dimension of performance (creative performance). Finally, organizations can also use this information to help inform training and development related activities as well, such as training individuals to be more creative at work.

Beyond the applied implications listed above, this dissertation can help inform researchers of organizational creativity. First and foremost, this research will establish that creative performance is a separate stand-alone dimension of job performance that is related to other critical criteria such as task performance and OCB. Secondly, I will test whether or not there are similar antecedents between creative performance, task performance, and OCB. Beyond this, I will also look at a process (engagement) by which these antecedents lead to performance, which will inform causal models of performance.

Purpose of Dissertation

The first purpose of this dissertation is to understand the relationship between creative performance and existing stand-alone dimensions of performance (specifically, task performance and OCB). I will use meta-analytic methods in order to assess the relationship between creative performance and other dimensions of performance. The

second purpose of the present dissertation is to explicate and test a causal model of job performance that includes creative performance as criteria.

Study 1. *Study 1* of this dissertation will use meta-analytic methods to assess the relationship between creativity and other job performance dimensions. Specifically, I will meta-analyze the relationship between creative performance and task performance, and the relationship between creative performance and OCB. Task performance and OCB are both distinct stand-alone performance dimensions that organizations value (Borman & Motowidlo, 1997). The purpose of this study is to establish how creative performance correlates with task performance and OCB.

Study 2. *Study 2* builds off *Study 1* by testing a causal model of performance, in which the dependent variables are creative performance, task performance, and OCB. Research findings suggest that both individual differences and job characteristics are related to job performance. Several models have suggested that engagement mediates the relationship between individual differences/job characteristics and performance. However, while some of these models suggest that creative performance is an outcome of this process, no one has explicitly tested this model. The goal of *Study 2* is to add creative performance to existing causal models of performance, specifically, I will test that engagement mediates the individual difference/job characteristic and performance (creative performance, task performance, and OCB) relationship.

Summary

The main criterion of interest in this dissertation is creative performance. However, in order to provide evidence that creative performance should be valued in organizations, I look at how creative performance correlates with other types of

performance and add creative performance to a causal model of job performance. By doing so, creative performance can be established as a distinct job performance criterion that also shares similar antecedents with other performance dimensions. The ultimate goal of this work is to help inform others of the value of creative performance as a dimension of job performance and suggest that it may be included in performance evaluations, used in selection, considered for training and development activities, and influence future research on creative performance in organizations.

CHAPTER II: LITERATURE REVIEW

Traditional models of job performance leave out an important criterion for consideration: creative performance. The main purpose of this dissertation is to establish that creative performance should be considered by organizations as a distinct stand-alone performance criterion. In order to accomplish the intended purpose of this dissertation, I focus on three criteria (creative performance, task performance, and organizational citizenship behavior) by examining their interrelationships and testing a causal model that leads to the three criteria. The review of the literature begins with introducing the current taxonomy of job performance and a discussion of where creativity fits into these models. Next, I will introduce the three criteria that I examine in this paper – creative performance, task performance and organizational citizenship behavior (OCB). I then explain the rationale behind the two studies conducted in the present dissertation. Finally, I review relevant literature on the antecedents of job performance and explain the hypothesized model that leads to the three criteria.

Job Performance

Viswesvaran and Ones (2000, p. 216) define job performance as “scalable actions, behavior, and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals.” Many different criteria can be used as indicators of job performance ranging from objective indicators (i.e. sales output) to subjective ratings of performance by supervisors. There are also many different dimensions of job performance (i.e. task performance, OCB, etc.) and I will review literature in this area in the following section.

Models of Job Performance. Viswesvaran and Ones (2000) provide a framework for reviewing models of job performance. There are stand-alone dimensions and dimensions developed as part of a set of dimensions. Below, I provide an overview of past models of job performance and then explain where creative performance fits in to this existing framework.

Stand-alone Dimensions. Task performance, OCB, and counterproductive work behavior (CWB) are stand-alone dimensions of job performance. These dimensions describe specific behaviors that can be classified as job performance. Task performance refers to proficiency in formal job tasks described in a job description (Motowidlo, 2000). Organizational citizenship behavior is discretionary and not explicitly recognized by the formal organizational reward system (Organ, 1988). Organizational citizenship behavior includes behaviors that positively influence organizational effectiveness, such as helping, courtesy, and compliance (Organ, 1997). In contrast, counterproductive work behavior negatively influence organizational effectiveness and includes behaviors such as abuse against others, sabotage, production deviance, withdrawal, and theft (Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006).

Set of Performance Dimensions. There are also several models in the literature that describe a set of performance dimensions. These different sets are each postulated to describe the construct domain of overall job performance. Campbell's (1990) model of job performance includes eight performance dimensions: job-specific task proficiency, non-job-specific task proficiency, written and oral communication, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision, and management or administration. Campbell states that the correlations between the

dimensions are small enough to consider them as distinct, however, they make up the general latent structure of job performance (Viswesvaran, Schmidt, & Ones, 2005).

Viswesvaran (1993) also proposed a model of job performance. Using the lexical approach, as used in the development of personality taxonomy, Viswesvaran found ten dimensions of performance: overall job performance, job performance or productivity, effort, job knowledge, interpersonal competence, quality, communication, competence, leadership, and compliance with rules. Murphy (1990) also developed a model of job performance and concluded that there were four dimensions: downtime behaviors, task performance, interpersonal behaviors, and destructive behaviors.

Where Creative Performance Fits In. Creative performance, like task performance, OCB, and CWB, is a stand-alone dimension. Stand-alone dimensions of performance have generally been developed through theory and the same also applies to creative performance. Modern organizations rely on creative employees and the novel ideas they generate to stay competitive in changing markets. Although early work implies that creative performance is limited to specific occupations and industries, researchers now argue that there is room for creativity across all occupations. That is, recently, some have argued that creativity is a part of job performance across occupations (Mumford, Hester, & Robledo, 2012; Jex & Britt, 2008). Further, creative performance has been linked to organizational success as well (e.g., Eisenhardt & Tabrizi, 1995; Geroski, Machin, & Van Reenen, 1993). The current dissertation considers creative performance as job performance alongside task performance and OCB as important criteria to study in organizations.

Criteria

Both *Study 1* and *Study 2* examine three different criteria – creative performance, task performance, and organizational citizenship behavior (OCB). Despite being three different types of behavior employees may exhibit, they are all desirable performance dimensions in organizations. Below, I define creative performance, task performance, and OCB.

Creative Performance. Although creativity can be applied to many things, researchers seem to agree to define creativity as “something” that is novel-original and useful-adaptive (Feist, 1998). This dissertation takes the organizational perspective on creativity, which stresses the useful component in the definition as much as the novel component. The useful component is important because useful ideas have the potential to add value to the organization (Shalley & Zhou, 2008), which is of utmost importance in industry.

As defined above, creativity is “something” that is novel-original and useful-adaptive (Feist, 1998). What this “something” is, however, is mostly thought of as “the four P’s” – *person*, *process*, *press*, and *product* (Runco, 2007). Creativity as a *person* focuses on the disposition of creative individuals. *Process* is the mechanisms that underlie creative thinking or activity. The *press* refers to environments that interact with the creative person to best bring out creativity. *Products* are creative outcomes – which can range from an art piece to an individual’s creative performance on a job. Products are the most objective approach to measuring creativity because others can view and judge products and therefore inter-rater reliability can be measured (Runco, 2007). For the purpose of organizational outcomes, creativity is best thought of as a behavior, or

outcome. Therefore creative performance is a product. It is something that others (i.e., coworkers, supervisors, etc.) can observe and rate. While research has looked at creativity a number of ways (i.e. the four P's), ultimately, in organizations, creativity is a form of performance. Creativity is an outcome and tied to a measure of performance because creativity is something that a person does, and should not be confused with dispositions or expertise that influences this performance (i.e., motivation or personality) (Mumford, Hester, & Robledo, 2012).

Task Performance and Organizational Citizenship Behavior. Organizational psychologists have made a distinction between formal job requirements (task performance) and extra-role behavior (OCB). Task performance refers to proficiency in formal job tasks described in a job description (Motowidlo, 2000). Organizational citizenship behavior includes behaviors that positively influence organizational effectiveness. Organ (1997) defined OCB as “performance that supports the social and psychological environment in which task performance takes place.” The contribution of OCB extends to the broader organizational environment. Organizational citizenship behavior can be either directed at another individual (OCB-I) or at the organization (OCB-O). The types of behavior that classify as OCB are helping, courtesy, and conscientiousness. Helping describes assisting others. Courtesy is behaviors that are done to prevent problems that would otherwise occur for specifiable individuals. Conscientiousness refers to behaviors directed toward the organization such as attendance and punctuality.

Study 1: A Meta-analytic Approach to Assessing Overlap between Creative Performance, Task Performance, and OCB

Several studies have consistently found a positive relationship between creative performance and both task performance and OCB. These relationships have only been reported incidentally and the hypotheses of interest in these studies are concerned with other variables. Mostly, in all studies that include creative performance and either task performance or OCB, both creative performance and another type of performance (task or OCB) are the outcome variables.

Past meta-analyses have shown value in meta-analyzing the relationship between job performance criteria (e.g., Dalal, 2005; Viswesvaran, 2002). There are several reasons why examining the relationship between criteria is important. First, connecting creative performance to other types of performance that organizations value is essential for demonstrating the value of creative performance. Second, there are several insights that we can glean by examining this relationship, such as common antecedents of performance (e.g., cognitive ability, Kuncel, Hezlett, & Ones, 2004). It is to be expected that predictors of task performance and OCB (e.g., Barrick & Mount, 1991; Chiaburu, et al., 2011; Fried, 1991) should also predict creative performance, if they are all dimensions of overall job performance and share common variance due to a general factor of job performance. The literature does suggest that creative performance often shares similar antecedents with task performance and OCB. However, there are still some antecedents that have not been applied to all three criteria. If we establish that there is a relationship, then the independent streams of literature can help to inform each other. Next, different dimensions of job performance also relate with each other, so we should

understand what the correlation between creative performance and other types of performance is. If we understand the strength of the relationship between the different dimensions, we can evaluate the extent to which creative performance is a distinct dimension of performance. Finally, some scholars have indicated that creative performance is part of job performance (e.g., Jex & Britt, 2008). However, the main models of job performance in industrial/organizational psychology literature do not include creative performance. If creative performance is a dimension of job performance, then it should be included in theory and models of job performance, causal models of performance, and ultimately be included in performance evaluations. For these previous reasons, establishing a relationship between creativity and other types of job performance is essential. Therefore, I hypothesize:

Hypothesis 1: Creative performance will be positively related to (a) task performance and (b) OCB

As mentioned above, in order for creative performance to be established as a separate dimension of performance, I look at its relationship with two other criteria. Creative performance should share a relationship with task performance and OCB, but the mean correlation should not be approaching 1.00. If the mean correlation is close to 1.00, it means that creative performance is not different than task performance or OCB, and therefore measuring creative performance would just provide redundant information. Instead, creative performance should have a correlation that is significantly different from 1.00. Therefore, I hypothesize:

Hypothesis 2: Creative performance will be a distinct dimension of job performance, that is, its corrected correlation will task performance and OCB and be different from 1.0.

Potential Moderators. Beyond the aforementioned hypotheses listed above, *Study 1* also attempts to look at potential moderators of the creative performance-task performance and creative performance-OCB relationships. For instance, source of rating may influence the strength of the relationships. Demographics may also influence the relationships. Also, the relationship may differ depending on criteria used (i.e., OCB-I or OCB-O). *Study 1* will test such moderators where the data is available.

Rater Source. The first moderator variable of interest is rater source. Job performance can be rated by one's self, coworkers, or supervisors and each of these raters can capture a unique perspective (e.g., coworkers being more aware of their OCB than supervisors). Past meta-analysis on criteria (e.g., OCB and CWB; Dalal, 2005) has found that the strength of the relationship between OCB and CWB differs as a function of the source of ratings. Specifically, supervisor ratings of OCB or CWB have a stronger relationship than self-ratings of OCB or CWB. Thus, it stands to reason that rater source may moderate the relationship between performance dimensions.

Research Question 1: Does the rater source (self vs. other-rater) moderate the relationship between (a) creative performance and task performance (b) creative performance and OCB, such that when the rater source is other-rater, the relationship between criteria is stronger than if the rater source is self-rater?

Study Location. Creative performance is a popular criterion in several different countries. However, the importance placed on being creative may differ depending on

where the study is located. Not much research has explored this question; however, some cultural theories can help to explain why such differences may occur. For instance, the amount of power distance in the country can influence how likely someone is to be creative at work or engage in OCB. Power distance is the extent to which a less powerful person in society accepts inequality and considers it normal (Hofstede, 1984). In cultures where there is high power distance, employees may be less likely to propose radical creative ideas to their supervisors, which can influence how much creative performance they will have at work when the time comes for evaluations. Another cultural difference that may have an influence is whether the society is collectivist or individualist. Collectivist societies place an emphasis on the group, and individualistic societies place emphasis on the self (Hofstede, 1984). Because collectivist societies focus more on others, there can be higher instances of OCB in collectivist countries, such as those of Asia, in contrast to individualistic societies such as the USA and Western Europe. Thus, I suggest that location may influence the relationship between criteria.

Research Question 2: Does location (US, Europe, and Asia) moderate the relationship between creative performance and task performance/OCB?

Age. There are a few theories that suggest that age can be a potential moderator in this study. Fluid intelligence, which involves being able to think more abstractly and solve problems can decline with age, so younger individuals are more likely to have better fluid intelligence. Research has found that fluid intelligence is related to creativity (Nusbaum & Silvia, 2011), so younger individuals may have higher creative performance. Impulsivity can also affect how creative someone may be at work. Younger individuals tend to be more impulsive, and therefore have higher creative performance

than those who are older. Beyond these theories, several meta-analyses have examined the relationship between age and performance with mixed findings. For instance, Waldman and Avolio (1986) found that age was positively related to productivity measures (.27) but weakly negatively related to supervisor ratings of performance (-.14), suggesting that the relationship differs depending on the job performance criteria used. Further, McEvoy and Cascio (1989) found only a small mean correlation between age and performance (.06) and did not find that the relationship differed depending on the performance criteria (i.e. supervisor vs. productivity rating). More recently and perhaps most relevant to the current meta-analysis is Ng and Feldman's (2008) meta-analysis on age and dimensions of job performance. Specifically, Ng and Feldman found that age is unrelated to core task performance or creative performance. However, they did find that age had a significant and positive relationship with OCB (.08 when corrected for interrater reliability). Therefore, I expect that age will influence the creative performance-OCB relationship more than the creative performance-task performance relationship.

Research Question 3: Does age moderate the relationship between creative performance and task performance/OCB?

Tenure. There are a few variables that may influence the effect of tenure on performance criteria, which could result in tenure moderating the relationship between performance criteria. Idiosyncrasy credit, which is an individual's credit and status gained in a group that gives said individual more legitimacy to deviate from in-group norms (Hollander, 1958) can be gained with more tenure in the organization. This idiosyncrasy credit may result in more tenured individuals being more creative, as their novel ideas may be more accepted by others. Previous meta-analysis has examined the

relationship between tenure and dimensions of job performance. Ng and Feldman (2010) found a relationship between tenure and in-role performance at .10, however the credibility interval contained zero. The relationship between tenure and creative performance was .06, but this credibility interval also contained zero. For OCB, the credibility interval also contained zero. These relationships however were moderated by rater source; the relationship between tenure and creative performance/OCB was stronger when the ratings were self-ratings.

Research Question 4: Does tenure moderate the relationship between creative performance and task performance/OCB?

Gender. Another potential moderator I will explore is gender. Meta-analyses have indicated that females on average have been rated as performing somewhat better than males in operational field settings (Roth, Purvis, & Bobko, 2012), however there is substantial variation in this finding. Sometimes males perform better, but in a greater proportion of cases, females perform better. I propose that gender may influence the relationship between the performance dimensions.

Research Question 5: Does gender moderate the relationship between creative performance and task performance/OCB?

Direction of OCB. Finally, recall that OCB can be either directed at another individual (OCB-I) or at the organization (OCB-O). Creative performance may have a stronger relationship with either OCB-I or OCB-O. I will also explore this as a potential moderator.

Research Question 6: Does the creative performance-OCB relationship differ depending on whether the OCB is directed at the individual or at the organization?

Summary. The above discussion describes the theory, research, and subsequent hypotheses behind *Study 1*. Thus, the purpose of *Study 1* is to meta-analytically estimate the relationship of creative performance with both task performance and OCB. I aim to find the correlation between creative performance and these other criteria that organizations value. Uncovering this relationship provides a necessary step in order to demonstrate that creative performance is a distinct dimension of job performance that should be valued and included in theoretical and causal models of performance. Empirical evidence shows that there are correlations across different dimensions of previously described models of job performance. The goal of the current meta-analysis is to provide empirical evidence that creative performance also correlates with other dimensions of job performance (task and OCB).

Study 2: A Process Model

Study 2 attempts to build off the findings of *Study 1*. Once a relationship between the criteria is established, causal models can be developed to include creative performance as a stand-alone dimension of job performance. Several studies and models suggest that creative performance, task performance, and OCB have similar antecedents. Below I briefly discuss models that indicate similar antecedents and processes leads to all three types of performance. These models aid in the development of the causal model tested in *Study 2*.

Previous models of engagement provide the framework from which the causal model in *Study 2* was developed. The Job Demands-Resources model (JD-R model; Bakker & Demerouti, 2007, 2008) proposes that job resources and personal resources lead to work engagement, which leads to job performance. Some of the suggested performance criteria in the JD-R model include in-role performance (task) and extra-role performance (OCB), but it also includes creative performance (Bakker & Leiter, 2010). Similarly, Macey and Schneider (2008) propose that both job characteristics and personality traits should be directly related to engagement and thus indirectly related to performance. Finally, Christian et al. (2011) meta-analytically examined some of the antecedents and consequences of work engagement. Job characteristics, leadership, and dispositional characteristics were the antecedents of engagement and job performance criteria (both task and contextual performance), and were the proposed outcome of engagement. However, creative performance is not included in the model. In *Study 2*, based on theoretical models (i.e. Christian et al., 2011; JD-R model) as well as expected findings from *Study 1*, creativity is included as a performance outcome in the hypothesized model.

On the basis of the previously mentioned models, I developed a model that indicates individual differences (specifically: extraversion, conscientiousness, proactive personality, and self-efficacy) and job characteristics (autonomy, feedback, and supervisor support) lead to engagement, and engagement leads to performance (creative performance, task performance, and OCB). In the following sections, I review the relevant research on these distal antecedents of creative performance, task performance, and OCB. Past findings suggest these criteria share common antecedents. Further, a

detailed discussion of engagement as a mediating mechanism that comes between the antecedents and performance is presented. Finally, the hypothesized model is presented and discussed in further detail.

Individual Difference Predictors of Performance at Work

Substantial evidence suggests that individual differences matter in organizations. Conscientiousness consistently seems to be the most robust predictor of performance across jobs (e.g, Barrick & Mount, 1991; Hertz & Donovan, 2000), but some evidence suggests that other dispositions also influence performance. Despite the fact that research on some individual differences (i.e. Big Five personality) is abundant, this area still deserves further research. Although research on individual differences and task performance/ OCB is well established, less is known about creative performance in employees. If creative performance is a dimension of job performance, then the independent literatures should help to develop hypotheses concerning dispositions and creativity at work. A relatively small amount of research on the Big Five and creativity has been done on employees, and instead, most of the work done in this area has been done on non-organizational samples (e.g., King, Walker, & Broyles, 1996; Wolfradt & Pretz, 2001). Further, the Big Five is a commonly used measure in organizational selection procedures; so understanding mechanisms that come in between these variables and creative performance is a very important next step in the literature. Beyond the Big Five, less is known about other individual differences such as proactive personality and self-efficacy. These variables have been found to be valuable in organizations in predicting job performance, (e.g., Crant, 1995; Judge & Bono, 2001) so they may also be useful in predicting creative performance. These other individual differences may have

incremental validity in predicting creativity over the Big Five, much like it has been found in the task performance literature (e.g., Crant, 1995; Crant & Batemen, 2000).

Big Five and Creative Performance. One of the most well researched areas of creativity has been on Big Five personality traits. However, most of this research has focused on creativity in a more general sense, (i.e., creative personality or performance on a task that requires creativity) or creativity in more artistic terms (i.e., story writing or painting). Much less is known as to how this relationship translates to individuals being creative in organizations. Meta-analysis has also looked at personality and creativity. For instance, Feist (1998) conducted the first meta-analysis on personality and creativity, which looked at both artistic and scientific creativity. The general finding was that individuals who are more creative are also more open to experience and are less conscientious, with the largest effect size findings on these two personality traits. However, there were differences between artists and scientists on the directions of the relationships between the Big Five and creativity, which may indicate that there are some differences that may occur when creative job performance is the criterion rather than non-job creativity.

Extraversion. Extraverts have been described as energetic, bold, assertive, and adventurous (Goldberg, 1991). Individuals who score low on extraversion are considered to be over-controlled and emotionally bland, and those scoring high are active, passionate, and willing to take risks. These last descriptors describe creative individuals (King et al., 1996). Early on, researchers hypothesized that introversion should be positively related to creativity because of the idea that artists have been consistently found to be introverted due to isolation being a prerequisite for their creativity. Further,

introverts can focus more on thinking and creating because they have the ability to work independently and away from others (Feist, 1999). However, as creativity research evolved beyond just looking at artistic creativity, the finding of creativity sharing a positive relationship with extraversion emerged instead (e.g., King et al., 1996; Wolfadt & Pretz, 2001). The relationship between extraversion and creative performance has also been found meta-analytically. In Dilchert's (2008) meta-analysis, the relationship between extraversion and creative performance was .09, however, this increased to .14 when the criterion was creative performance at work.

In Feist's (1998) meta-analysis, scientists that were found to be more creative were also found to be more extraverted. Further, the relationship between extraversion and creative performance is clearer when extraversion is further broken down into the facet level. Feist (1998) explained that the reason creative scientists were more extraverted was mainly due to the confidence component rather than the social component of extraversion. Individuals who are confident may have better performance. In addition to Feist's (1998) findings, some theorize that the social component may also be relevant. For instance, extraverted individuals are better at expressing their ideas, which may result in better creative performance at work. Further, the more socializing an individual does, the more ideas they may come up with, which is echoed in findings regarding teams. Teamwork, which includes the need to socialize, may actually enhance creativity because many diverse ideas may be expressed in these situations (Perry-Smith, 2008). Past theory and findings suggest that extraversion should be a positive predictor of creativity at work.

Hypothesis 3: Extraversion will be positively related to creative performance

Conscientiousness. Research on conscientiousness and creativity has yielded mixed findings. Some scholars insist that there is no relationship, as demonstrated by a few studies that find non-significant relationships between the two constructs. Other researchers have hypothesized that conscientious work habits may actually inhibit creative production. Further, when the definition of conscientiousness is examined, individual differences such as capacity for fantasy are indicative of an individual low in conscientiousness, but are actually relevant to creativity (King et al., 1996), further supporting the reasoning behind why conscientiousness should be negatively related to creativity. A few studies have found support for this hypothesis. For instance, Furnham et al. (2006) found that conscientiousness was negatively related to creativity. Wolfradt and Pretz (2001) found that low conscientiousness predicted story writing creativity, and Batey et al. (2010) found a negative relationship between conscientiousness and ideation behavior.

In contrast, some research has actually found a positive link between conscientiousness and creativity. For instance, conscientiousness was positively related to self-reported creative accomplishments from the past two years in individuals low in creative talent in King et al. (1996), which suggests that even if someone lacks creative ability, they can still produce creatively through high conscientiousness. Feist's (1998) meta-analysis on personality and creativity helps to give insight on the nature of the relationship between conscientiousness and creativity. Feist's meta-analysis, which includes scientists and artists, found that the conscientiousness-creativity relationship differs between the groups. When comparing scientists and nonscientists, scientists were

around half a standard deviation higher on conscientiousness and controlling of impulses. A modest effect size differentiated creative scientists as more conscientious than less creative scientists. However, artists were less conscientious than non-artists. The findings are dramatically different when you contrast artistic creativity versus scientific creativity. Dilchert (2008) found meta-analytically that the relationship between the global measure of conscientiousness and creativity has a small, negative relationship. However the achievement facet of conscientiousness had a positive relationship with creative performance at work at .27.

Some more research has been helpful in disentangling the relationship between conscientiousness and creativity. Most of this research has looked at the facet levels of conscientiousness. For instance, Reiter-Palmon, Illies, and Kobe-Cross (2009) hypothesized that the achievement and dependability components of conscientiousness may have different relationships with creativity and may suppress each other. They found that the achievement component was positively related to creativity, and dependability was negatively related to creativity. Because of the cooperative suppression, the overall factor of conscientiousness was not related to creativity, which can help to explain why some scholars believe there is no relationship between conscientiousness and creativity. Further, Batey et al. (2010) found that conscientiousness was significantly and negatively related to ideation behavior ($r = -.18$), but the relationship was not the same for all the facets of conscientiousness. The competence and achievement-striving facets had significant positive relationships with ideation behavior ($\beta = .32$, and $.18$, respectively) but the negative relationships with order, self-discipline, and deliberation made the overall relationship between conscientiousness and ideation behavior negative. Finally,

Furnham, Crump, and Swami (2009) also found a positive and significant relationship between divergent thinking and the competence and achievement striving facets of conscientiousness, yet the relationship between divergent thinking and conscientiousness at the factor level was non-significant. Although conflicting evidence exists about conscientiousness and creativity, because the criterion in this dissertation is creativity at work, it is likely that conscientiousness will have a positive relationship with creative performance, mostly through the achievement-striving and competence components of conscientiousness.

Hypothesis 4: Conscientiousness will be positively related to creative performance

Big Five and Task Performance. A few meta-analyses have established a relationship between Big Five and task performance. Although the mean corrected correlations are not very large, some of the Big Five do share positive relationships with performance. In Barrick and Mount (1991), conscientiousness, extraversion, and openness to experience were related to certain criteria (job proficiency, training proficiency, and personnel data). Hurtz and Donovan (2000) also found similar results in their meta-analysis. Specific findings and theoretical approaches about extraversion and conscientiousness are discussed below.

Extraversion. Most of the findings about extraversion and task performance have been centered on jobs that require skills that extraverts have – social skills. However, being extraverted at work also has more advantages as well, such as asserting oneself and being confident. Barrick and Mount (1991) found a .13 corrected correlation across occupations.

Hypothesis 5: Extraversion will be positively related to task performance

Conscientiousness. Meta-analyses have indicated that conscientiousness is consistently related to task performance across different fields (e.g., Barrick & Mount, 1991, Hertz & Donovan, 2000). In Barrick and Mount (1991), the corrected correlation was .22, and conscientiousness is the most robust personality predictor of the Big Five. Similarly, Hertz and Donovan (2000) found the true-score correlation between conscientiousness and job performance to be .16, and again the strongest predictor of the Big Five.

Hypothesis 6: Conscientiousness will be positively related to task performance

Big Five and OCB. Several studies have found modest relationships between the Big Five and OCB (e.g., Chiaburu, et al., 2011; Kiffen-Petersen, Jordan, & Soutar, 2011; Taylor, Klumper, & Mossholder, 2010). Meta-analysis on the Big Five and OCB has found corrected correlations of .22 for conscientiousness, .17 for agreeableness, .15 for emotional stability, .11 for extraversion, and .17 for openness to experience. Further, the Big Five predict OCB over and above job satisfaction (Chiaburu et al., 2011). Of particular interest for *Study 2* are the relationships between extraversion and OCB and the relationship between conscientiousness and OCB.

Extraversion. Although the mean corrected correlation between extraversion and contextual performance is only .11 (Chiaburu et al., 2011), hypotheses suggest that extraverts are often fixated on “getting ahead” (Hogan & Holland, 2003). This desire to gain power and status may drive individuals to engage in more OCB. Further, the social nature of extraverts may make these helping behaviors easier to engage in, as it may come naturally for extraverts. There is evidence to suggest that both the confidence and

the social aspects of extraversion help to drive OCB. Further, the corrected correlation between extraversion and interpersonal facilitation in Hertz and Donovan (2000) was .10.

Hypothesis 7: Extraversion will be positively related to OCB

Conscientiousness. Conscientiousness is a socially desired trait and conscientious individuals tend to behave in ways that individuals value at work. The achievement-striving facet of conscientiousness drives individuals to succeed at work by offering to do extra-role jobs. Conscientious individuals also tend to spend more time on tasks, which can result in engaging in more OCB. Further, being competent is also likely to make an individual more willing to help out a colleague, because they think they are capable and actually able to provide help. Meta-analytically, conscientiousness is the strongest Big Five predictor of OCB (Chiaburu, et al., 2011) and in Hertz and Donovan (2000) conscientiousness and interpersonal facilitation had a corrected correlation of .18.

Hypothesis 8: Conscientiousness will be positively related to OCB.

Proactive Personality and Creative Performance. Proactive personality is a stable disposition that an individual has to take personal initiative in a broad range of activities and situations (Siebert et al., 2001). Proactive individuals are unconstrained by situational forces and they also effect environmental change (Bateman & Crant, 1993). Bateman and Crant (1993) state that the propensity that proactive individuals have to identify opportunities for improvement can lead to innovative behavior. Proactive personality should lead to creativity because proactive individuals seek opportunities to identify new ways of doing things, which can result in creativity (Seibert et al., 2001). Proactive individuals also may have more confidence to see their ideas through, resulting in higher creative performance at work.

Although there have not been many studies that look at the relationship between proactive personality and creative performance, the studies that have looked at the relationship have found a positive relationship. Seibert et al. (2001) found that proactive personality was related to innovative behavior in their sample of university alumni comprised of many different occupations ranging from engineering to finance. Kim et al. (2009) longitudinally examined the relationship between proactive personality and employee creativity. The sample of employees from Hong Kong revealed that proactive personality positively predicted creativity, and that creativity fully mediated the relationship between proactive personality and career satisfaction and perceived insider status. Kim et al. (2010) also found a relationship between proactive personality and creativity in a South Korean sample. The relationship was stronger when the job requirement for creativity and supervisory support for creativity were both high.

Hypothesis 9: Proactive personality will be positively related to creative performance

Proactive Personality and Task Performance. Proactive individuals may have higher job performance because they are actively selecting environments that lead to effective job performance (Crant, 1995). Research has established that proactive personality is related to task performance (e.g.; Chan, 2006; Crant, 1995; Thomas, Whitman, & Viswesvaran, 2010). Further, proactive personality also has been shown to have incremental validity over traditionally studied personality variables such as the Big Five (e.g., Crant, 1995; Crant & Batemen, 2000). Siebert et al.'s (2001) model found that a proactive personality is related to both extrinsic and intrinsic career success (salary

progression, promotion, and career satisfaction) through voice, innovation, career initiative, and political knowledge.

Hypothesis 10: Proactive personality will be positively related to task performance

Proactive Personality and OCB. Both proactive personality and OCB focus on going beyond regular job requirements and positively contributing to the organization (Frese, Kring, Soose, & Zempel, 1996). However, very little research has empirically examined this relationship despite theories that suggest the two should have a strong relationship. Li, Liang, and Crant (2010) did not find a direct significant relationship between proactive personality and OCB, although they did find that the relationship was moderated by the procedural justice climate in the sample of Chinese employees. However, drawing from task performance literature, which shows there is a positive relationship between proactive personality and task performance, and the shared focuses of both proactivity and OCB, proactive personality should be positively related to OCB.

Hypothesis 11: Proactive personality will be positively related to OCB.

Self-efficacy and Creative Performance. Self-efficacy is an individual's beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives (Wood & Bandura, 1989). Bandura (1997) suggests that self-efficacy is an essential part of creative performance, although unlike other researchers in the area, Bandura does not consider self-efficacy to be a disposition.

Feist (1998) found self-confidence to be a key characteristic of creative individuals because of the confidence one must have in their talent to be creative. Prabhu,

Sutton, and Sauser (2008) found support for a positive relationship between self-efficacy and creativity, although intrinsic motivation completely mediated this relationship in the sample of undergraduates. The relationship between self-efficacy and creativity performance has also been found in organizational settings. In Liao, Liu, and Loi (2010), self-efficacy positively predicted creativity (operationalized as creativity bonuses the employees received) in a sample of Chinese technicians. Dilchert's (2008) meta-analysis on creativity at work found that the relationship between work-specific self-efficacy and creative performance (rated by others) was .27.

Hypothesis 12: Self-efficacy will be positively related to creative performance

Self-efficacy and Task Performance. Essentially, self-efficacy is the perceived capability for performing a specific task (Bandura, 1997). Past research is supportive of the importance of self-efficacy for performance (e.g., Judge & Bono, 2001). Several studies have found a positive relationship between self-efficacy and task performance. For instance, Hu and Liden (2013) found that self-efficacy partially mediated the relationship between relative leader-member-exchange (LMX) and in role-performance in their sample of teams.

Hypothesis 13: Self-efficacy will be positively related to task performance

Self-efficacy and OCB. Self-efficacy has also been postulated as a predictor of OCB. Chiu and Chen (2005) found a positive relationship between self-efficacy and OCB in electronic company employees, which included administrative and engineering roles, showing that self-efficacy can be a valuable trait in an assortment of jobs. Research also found that self-efficacy fully mediated the relationship between relative LMX and OCB in Hu and Liden (2013). If an individual believes they are competent at their job they are

more likely to share their knowledge with coworkers and offer to help them even if it is not a formal job requirement.

Hypothesis 14: Self-efficacy will be positively related to OCB

Job Characteristic Predictors of Performance at Work

Aside from individual difference predictors, there are a number of contextual factors that also influence performance at work. The prediction of job characteristics on performance a pertinent area of research because managers can have a real influence on designing jobs so they can influence performance, rather than relying on pre-existing individual differences discussed above. Below three different job characteristics – autonomy, feedback, and supervisor support are discussed as predictors of job performance.

Autonomy and Creative Performance. Autonomy has been postulated as an important feature for fostering creativity in the work environment. For instance, Shalley (2008) states if an organization provides a context that is conducive to creativity then creative activity is more likely to occur. When employees have ownership and control over their work, they are intrinsically motivated and engage more in problem solving (Hennessey & Amabile, 2010). Autonomy motivates individuals to try new ideas and to learn from their consequences, which expands their skill-set (Coelho & Augusto, 2010). Research on autonomy as a situational characteristic has found that it is related to employees undertaking creative action (e.g., Unsworth & Clegg, 2010).

Self-determination theory posits that extrinsically motivated behavior is a form of nonautonomous or controlled behavior and intrinsic motivation is a form of autonomous behavior. Research in self-determination theory has demonstrated that controlling

environmental factors (such as rewards or harsh deadlines) can negatively influence the quality of functioning in many ways (Deci & Ryan, 1985). In contrast, self-determination theory promotes autonomy as a better route to creative performance. Autonomy is critical for creative productivity because when employees feel a degree of ownership in, or control over their work, they will be intrinsically motivated and will be more likely to fully engage their cognitive processes in problem solving (Hennessy & Amabile, 2010).

Several studies have found autonomy at work to be positively related to employee creativity. For instance, Coelho and Augusto (2010) found autonomy to have a positive influence on creativity in their sample of frontline service employees. Unsworth and Clegg (2010) interviewed engineers and found that autonomy is a cue employees use to decide whether or not taking creative action is worthwhile. Further, in Dilchert's (2008) meta-analysis, employee perceptions of autonomy were related to both supervisor and self-ratings of creativity (.42 and .45, respectively).

Hypothesis 15: Autonomy will be positively related to creative performance

Autonomy and Task Performance. Hackman and Oldham (1976) have long postulated that autonomy is one of the key factors in job design that influences job performance. When individuals perceive that they can directly affect their work environment, they have higher task performance. When individuals are allowed autonomy at work, they can determine how and when they do many of the aspects of their job. Employees also can increase the scope of their job to enhance their performance. Autonomy enhances intrinsic motivation in employees, and the more motivation employees have, the better they perform. Meta-analysis has shown that indeed autonomy is associated with several organizational outcomes, including performance and

well-being. The mean correlation between autonomy and performance is .18 (Spector, 1986).

Hypothesis 16: Autonomy will be positively related to task performance

Autonomy and OCB. When individuals are given more autonomy on their job they are allowed more freedom and control. Freedom and control allows individuals to engage in extra behaviors that benefit the organization such as taking the time to help out others. Further, as discussed above in relation to self-determination theory, autonomy increases motivation, which should allow individuals to put more effort into their work, and thus leads to more OCB. Indeed, studies have found a positive relationship between autonomy and OCB such as Runhaar, Konermann, and Sanders (2013) who found that autonomy was positively related to both OCB directed at the organization and to OCB directed at individuals in a sample of teachers.

Hypothesis 17: Autonomy will be positively related to OCB

Feedback and Creative Performance. Another job characteristic that has resulted in increased creative performance is feedback. Feedback provides employees with information that is focused on learning, development, and improving performance (Zhou, 2003). This feedback should be clear and direct information about one's own job performance (Hackman & Oldham, 1980). Feedback can also provide information about an employee's current effort on a creative project and can stimulate them to explore alternate courses, which can result in a more creative product (Coelho & Augusto, 2010). Further, feedback instills a learning orientation into employees that aids in creativity. When feedback is given to employees, they can channel their thinking into improvement and this expanded thinking can help employees come up with new ideas (George &

Zhou, 2007). However, when employees do not receive feedback they do not know how to feel about their performance, which reduces their motivation and adversely affect creativity (Coelho & Augusto, 2010).

Zhou (2008) suggested four reasons why feedback should increase creativity in employees. First of all, feedback should increase intrinsic motivation, which has been widely found to increase creativity (e.g., Prabhu et al., 2008). Secondly, feedback can also have an effect on mood states, and affect has been found be related to creativity (e.g., George & Zhou, 2007). Thirdly, feedback can help to clarify the standards of creative output. Individuals are better able to understand what is expected of them and adjust accordingly. Finally, feedback also helps to facilitate creativity-relevant skills and strategies.

Noefer, Stegmaier, Molter, and Sonntag (2009) found that feedback was positively correlated with idea generation. Further, feedback also moderated the relationship between time pressure and skill variety with idea generation and implementation. Feedback was positively related to creativity in frontline service employees in Coelho and Augusto (2010). Giving higher feedback to employees has also been positively correlated with team creativity (Joo, Song, Lim, & Yoon, 2012). Finally, In Slijkhuis, Rietzschel, and Van Yperen (2013), informational evaluations were related to higher performance, however only in individuals who were low in personal need for structure.

Hypothesis 18: Feedback will be positively related to creative performance

Feedback and Task Performance. Feedback is another job design dimension that Hackman and Oldham (1976) have long emphasized to increase performance in

employees. Feedback gives employees information about their performance, which can help them to adjust their performance to do better. Feedback is also essential in motivating employees, which should increase job performance. Studies have found this job characteristic to be related to task performance (e.g., Vigoda-Gadot & Angert, 2007). Fried's (1991) meta-analysis found that the corrected correlation between feedback (as measured by the Job Diagnostics Survey) and performance was .22.

Hypothesis 19: Feedback will be positively related to task performance

Feedback and OCB. Feedback has an influence on motivating employees, which again should increase OCB as it increases task and creative performance. Feedback positively influences employees by giving them information about how they perform. This information that employees are given can be integrated into helping others and the organization through OCB. Receiving feedback can also increase positive affect. This increase in employee's positive affect should lead to individuals engaging in OCB. Job feedback was positively related to OCB in Chiu and Chen (2005), Vigoda-Gadot and Angert (2007), as well as OCB intentions in Sommer and Kulkarni (2012).

Hypothesis 20: Feedback will be positively related to OCB

Supervisor Support and Creative Performance. Having support from supervisors is an important variable to consider in predicting whether or not employees will be creative. For instance, if an individual feels they will be punished for a failed attempt at being creative they are more likely to continue performing the way they always have rather than attempt a new and creative approach to doing their work (Shalley, 2008). If you encourage creative thinking styles, then you allow for more creative output. Supervisors should reward employees for their creative attempts, even if the attempts are

unsuccessful (Williams & Yang, 1999). Oldham and Cummings (1996) found that one of the factors most important for employee creativity was supportive supervision. Amabile et al. (2004) found that leader support predicted peer-rated creativity in seven companies. Meta-analytically, Dilchert (2008) found that general support from work sources was related to supervisor ratings of creative performance (.21) and LMX predicted supervisor ratings of creative performance (.41) and self-ratings of creative performance (.22).

Hypothesis 21: Supervisor support will be positively related to creative performance

Supervisor Support and Task Performance. When an individual feels supported by their supervisor, this is likely to result in better performance. Chan (2006) found a positive relationship between perceived supervisor support and job performance in a sample of employees at a rehabilitation agency. Supervisor support even moderated the relationship between job insecurity and task performance in Schreurs, Hetty van Emmerick, Gunter, and Germeys (2012).

Hypothesis 22: Supervisor support will be positively related to task performance

Supervisor Support and OCB. When supervisors show support, mutual trust and obligations are established, which can motivate employees to go beyond their formal job requirements and engage in OCB (Podsakoff, McKenzie, Paine, & Bachrach, 2000). Supervisor support was positively related to both OCB-I and OCB-O in Chen and Chiu (2008) through job satisfaction. When employees feel support from their supervisor they are likely satisfied, and satisfaction is a large predictor of employees' OCB (Organ & Ryan, 1995). Kuvaas and Dysvik (2010) found a positive correlation between perceived supervisor support and OCB. Although not much research has been done in this area, the

studies that have looked at the relationship between supervisor support and OCB show promise that there is a positive relationship between the two constructs.

H23: Supervisor support will be positively related to OCB

Engagement

I have discussed the antecedents of creative performance, task performance, and OCB. Next I will discuss a variable that predicts performance that is often conceptualized as a mediator between individual differences/job characteristics and performance: engagement. Engagement has intuitive appeal to both researchers and practitioners. Research mostly supports that engagement is a positive attribute of employees, as engagement consistently predicts creative performance (e.g., Bakker et al., 2007), task performance, and OCB (e.g., Christian et al., 2011). Beyond performance, engaged workers have higher organizational commitment, better health, and are less likely to turnover (Halbesleben, 2010). Below, relevant theory on engagement is reviewed, and its influence on performance at work is discussed, as well as how it operates as a mediator in this dissertation's proposed model.

Definition and Theory. Khan (1990, p. 694) was the first to introduce the construct of engagement as “harnessing of organization members’ selves to their work roles; in engagement people employ and express themselves physically, cognitively, emotionally, and mentally during their role performances.” Basically, engagement refers to high levels of personal investment in the work tasks performed on a job (Christian et al., 2011). Cognitive engagement occurs when individuals think about their work and the work environment, and represents intellectual commitment to the organization. Emotional engagement concerns emotional involvement with work. Behavior

engagement is a physical manifestation of cognitive and emotional engagement and is often associated with job performance (Shuck & Reio, 2011).

Research on engagement as a construct stemmed out of burnout research in order to look at the more positive, and hence, opposite side of burnout (Schaufeli et al., 2002). Conceptualization used in this dissertation is engagement as a motivational variable as described and used in Bakker and Leiter (2010). As a mediator in *Study 2*, engagement is defined as “a positive, fulfilling, affective-motivational state of work-related well-being that can be seen as the antipode of job burnout” (Leiter & Bakker, 2010). Engagement explains what traditional studies of work motivation have overlooked. Engagement researchers believe that employees have differing degrees and dimensions of themselves that act in accord to something internal (Khan & Fellows, 2013). Employees who are engaged have high levels of energy, are enthusiastically involved in their work (Bakker, Schaufeli, Leiter, & Taris, 2008), and are able to deal completely with their job demands (Schaufeli et al., 2002). This differs from the traditional thought that motivation in employees is either on or off; instead, engagement implies that employees are more complicated than that (Khan & Fellows, 2013).

Engagement includes three factors (1) *vigor*, (2) *dedication*, and (3) *absorption*. *Vigor* is “high levels of energy and mental resilience while working, willingness to invest effort in one’s work, and persistence in the face of difficulties.” *Dedication* is “a sense of significance, enthusiasm, inspiration, pride, and challenge.” *Absorption* is “being fully concentrated and deeply engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work” (Schaufeli et al., 2002). Absorption is similar to “flow,” a state of optimal experience that includes focused attention, clear

mind, mind and body unison, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990). However, absorption differs from flow in that flow is more complex, and consists of short-term “peaks” rather than the more pervasive and persistent state of engagement (Schaufeli et al., 2002).

Job Demands-Resources Model. The model that best describes the prediction of engagement is the job demands-resources model (JD-R model; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). It is the theoretical framework that is commonly applied to engagement research (e.g., Bakker, Hakanen, Demerouti, Xanthopoulou, 2007). In the job demands-resources model (JD-R Model), demands refer to any “physical, social, or organizational aspect of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs”, such as exhaustion. Resources refer to “physical, psychological, social, or organizational aspects of the job that may be a function in achieving goals at work, reducing job demands at the associated physiological and psychological costs, and stimulate personal growth and development” (Demerouti et al., 2001). The theory posits that these resources help to keep individuals physically and psychologically healthy even when job demands are high. Job demands and resources are negatively correlated because job demands may prevent the mobilization of job resources (Bakker & Demerouti, 2007).

There are four levels of job resources – *organization, interpersonal and social relations, organization of work, and task*. At the *organization* level, these resources can include salary or career opportunities. Support from others at work (coworker or supervisor) is an example of *interpersonal and social* relationship resources.

Organization of work includes role clarity or participation in any decision-making.

Finally, *task* resources are variables such as feedback or autonomy (Bakker, Demerouti, & Verbeke, 2004).

The JD-R model is a dual process model; there are two sets of working conditions that evoke two different processes (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). The demands exhaust employees and lead to burnout and the resources lead to employee engagement. This dissertation focuses on the part of the JD-R model where resources lead to employee engagement, which then leads to positive outcomes, such as job performance.

Broaden-and-Build Theory of Positive Emotions. Although not frequently used as a theory of engagement in comparison to the JD-R model, Frederickson's (2001) broaden-and-build theory of positive emotions is also relevant in explaining engagement. Broaden-and-Build theory posits that positive emotions (joy, interest, contentment) share the ability to broaden momentary thought-action repertoires. They also help build employees' personal resources through the thoughts and actions that come to mind. In this vein, the positive emotion of joy, for instance, broadens resources by creating the urge to play and therefore be creative. These emotions produce broad and flexible cognitive organization and the ability to integrate diverse material. Broaden-and-Build theory can help explain how engagement may lead to individuals being more creative at work. Further, some research has found support for increased job performance (via asking more questions in business meetings) when the ratio of positive to negative emotions in managers is relatively high (Fredrickson & Losada, 2005).

Engagement and Performance

Research has found that engagement is a strong predictor of employee performance. Some researchers appreciate that engagement is related to overall well-being, however, organizations are focused mostly on more tangible outcomes, and therefore, job performance. Below I discuss some of the literature that has found positive relationships between engagement and job performance.

Engagement and Creative Performance. Several studies have found a positive and significant relationship between engagement and creative performance. Most of these studies hypothesize that because engagement leads to performance, and the same relationship should hold true for creative performance as well. The findings from *Study 1* should help clarify whether or not the independent literatures should inform each other about the processes that influence different types of job performance. Other studies (i.e., Agarwal, Datta, Blake-Beard, & Bhargava, 2012) rely on theories about engagement and positive emotions (i.e., Broaden-and-Build; Fredrickson, 2001). Bakker et al. (2007) found a positive and significant relationship between all three facets of engagement and innovativeness in a sample of Finnish teachers. In a sample of research and design employees in India, work engagement was positively related to innovativeness, measured by the quest for new products or improvements in management, effective implementation of innovations, the application in project management, and degree of novelty within the firm and market (Bhatnagar, 2012). Chughtai and Buckley (2011) also found that engagement predicted innovative work behavior in Irish research scientists; but this relationship was partially mediated by learning goal orientation. Gorgievski et al. (2010) also found positive correlations between engagement and self-reported innovativeness in

both a Dutch employee sample and a self-employed sample. Agarwal et al. (2012) found that engagement lead to innovative work behavior, and that engagement mediated the relationship between Leader-Member-Exchange (LMX) and innovative work behavior in Indian managers.

Hypothesis 24: Engagement will be positively related to creative performance

Engagement and Task Performance. Several studies have linked engagement to higher performance in employees. Because engagement is a motivational variable, the amount of intensity and persistence individuals have toward their work is increased, and therefore employees are likely to have higher task performance when they are engaged. Employees are also more focused, which helps to increase task performance (Christian et al., 2011). In Habesleben's (2010) meta-analysis, the estimated population correlation between engagement and performance, corrected for artifacts was .36. Further, vigor and performance had an estimated population correlation of .29 and dedication and performance had an estimated population correlation of .27. In Christian et al. (2011) the mean corrected correlation (corrected for unreliability in the predictor and criterion) was .45 for the relationship between UWES and task performance, and .30 for other measures of engagement and task performance. However, it should be noted that the number of unique studies in both of the meta-analysis was not ideal; all included less than 10 studies in their calculations. This necessitates further study in organizations on the relationship between engagement and performance.

Hypothesis 25: Engagement will be positively related to task performance

Engagement and OCB. A relationship between engagement and OCB has also been established. When individuals are invested at work, as they are when they are

engaged, they should engage in more extra-role behavior (Christian et al., 2011).

Organizational citizenship behaviors are discretionary behaviors that are not a part of the formal job requirement, and engagement itself is often thought of as going beyond the role of the job, so the finding that there is a relationship between engagement and OCB is not surprising. Christian et al. (2011) found a mean corrected correlation of .34 between engagement and contextual performance (.31 for the UWES, and .48 for other measures of engagement); again, the amount of studies included in the meta-analysis was not ideal, necessitating more studies in this area.

Hypothesis 26: Engagement will be positively related to OCB

Engagement as a Mediator

Although studies have identified the individual differences and job characteristics discussed above as predictors of creative performance, task performance, and OCB, it is possible that there is a mediating mechanism that links them to performance, by way of a process – engagement. Khan (1990) proposed that both individual and organizational factors influence the psychological experience of work, and then in turn, the experience drives behavior at work. Most of the conceptual framework on engagement has postulated engagement as a mediating variable (Bakker and Leiter's (2010) model, based on Bakker and Demerouti, 2007, 2008; Christian et al., 2011, Macey & Schneider, 2008), and this is how engagement is conceptualized in *Study 2*. Below I discuss the relationship between the previously reviewed individual differences and job characteristics with engagement and explain engagement's role as a mediator.

Extraversion and Engagement. A few studies have found that extraversion can predict engagement. For instance, Kim, Shin, and Swanger (2009) hypothesized that

extraversion should be related to engagement because of vigor. Both extraversion and vigor share the characteristic of high energy, suggesting that the two should possibly be related. Extraversion was also positively related to engagement in Wefald, Reichard, and Serrano (2011) and Langelaan, Bakker, van Doornen, and Schaufeli (2007). Extraversion was significantly correlated with the UWES as well as all three facets of engagement in Mulienburg-Trevino's (2009) sample of non-profit employees in the US. Extraverts will find more energy from the social aspects of their job, which should lead to being more engaged, which then leads to better performance. Further, the confidence component of extraversion would lead individuals to be more confident in their work, and from this confidence they will be more engaged, and therefore have better performance.

Hypothesis 27: Engagement will mediate the relationship between extraversion and (a) creative performance, (b) task performance, and (c) OCB

Conscientiousness and Engagement. Christian et al. (2011) explain that conscientiousness should predict engagement because conscientious individuals have a strong sense of responsibility, which is likely to result in employees being more involved in their job tasks. Achievement-striving, a facet of conscientiousness, has been positively related to engagement as well (e.g., Hallberg, Johansson, & Schaufeli, 2007). The achievement-striving facet should be related to engagement because these individuals have goals and motivation. The competence facet of conscientiousness also explains why there should be a relationship with engagement because individuals who feel like they know their job well are likely to be more engaged in their work. As per the definition of vigor, individuals should persist because of their competence even when there are difficulties. Kim et al. (2009) found a positive correlation between conscientiousness and

engagement in a sample of US employees. Conscientiousness was positively correlated with engagement in Wefald et al. (2011). Conscientiousness was also positively correlated with the UWES and its three facets in a sample of non-profit US employees (Muilenburg-Trevino, 2009). The mean correlation between conscientiousness and engagement in Christian et al. (2001) was .42.

Hypothesis 28: Engagement will mediate the relationship between conscientiousness and (a) creative performance, (b) task performance, and (c) OCB

Proactive Personality and Engagement. Proactive personality has been hypothesized to be a predictor of engagement. Proactive personality comprises more than just taking initiatives, but it also includes searching for learning opportunities and engaging in learning activities (Frese et al., 1996). Christian et al. (2011) suggest that proactive personality should be linked to engagement because of the involvement aspect of proactive individuals' initiative and perseverance. The individuals who are more involved in their work environment are also likely to immerse themselves in their work, thus leading to more engagement. Dikkers, Jansen, Lange, Vinkenbunrg, & Kooij (2009) were the first to look at proactive personality as a predictor of engagement. Their two-wave study of Dutch government employees found that proactive personality predicted engagement 18 months later. In Christian et al. (2011)'s meta-analysis on engagement, the mean corrected correlation between proactive personality and engagement was .44, however, only six studies were included in the analysis. Proactive personality leads to performance because proactive individuals find new and better ways of doing things as part of their behavior, which leads to better performance. By doing so, they also become

involved in their work, leading to engagement. Therefore, engagement should mediate the relationship between proactive personality and performance.

Hypothesis 29: Engagement will mediate the relationship between proactive personality and (a) creative performance, (b) task performance, and (c) OCB

Self-efficacy and Engagement. Self-efficacy is a part of a person's psychological capital and is a personal resource that facilitates engagement (Bakker & Leiter, 2010). Engagement is also a motivational variable. Prahbu et al. (2008) theorize that because self-efficacy has a motivational component as well, an individual who has confidence in their work (i.e. high self-efficacy) has more motivation to do their job and will find it much more interesting (i.e., they should be engaged). Self-efficacy can be a motivator and can have a positive influence on engagement. Several studies have demonstrated that as a personal resource, self-efficacy, does in fact have a positive influence on engagement (e.g., Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Hypothesis 30: Engagement will mediate the relationship between self-efficacy and (a) creative performance, (b) task performance, and (c) OCB

Autonomy and Engagement. Job resources are working conditions that provide resources for individual employees (Hakanen & Roodt, 2010). These resources can be physical, psychological, social, or organizational aspects. These resources can be on four levels – organization, interpersonal, organization of work, and task. Autonomy is an example of the task level of these resources that can intrinsically motivate individuals and enhance their potential for both growth and learning (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). In Halbesleben's (2010) meta-analysis, job resources had a mean

corrected correlation of .35 with engagement, .30 with vigor, .34 with dedication, and .25 with absorption. Further, in Christian et al.'s (2011) meta-analysis, the mean corrected correlation between autonomy and engagement was .39. Self-determination posits that autonomy fulfills the basic human need for control (Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010). Self-determination theory research also indicates that when employees are motivated at work, their attention and effort is focused on their job, leading to better performance. Attention may also lead employees to be more persistent and more likely to consider alternative approaches, which should result in more creativity (Shalley, 2008), which describes the mediating role of engagement in the relationship between autonomy and performance.

Hypothesis 31: Engagement will mediate the relationship between autonomy and (a) creative performance, (b) task performance, and (c) OCB

Feedback and Engagement. Feedback, which is a component of Hackman and Oldham's (1976) job characteristics theory, is a feature of the work environment that should facilitate motivation. Motivation affects the extent to which a person is willing to invest energy into job tasks. Feedback falls under the task level of job resources because it motivates individuals to grow and learn from the feedback they receive (Bakker et al., 2007). Further, self-determination theory also posits that feedback fulfills basic human needs such as competence (Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010). In Christian et al. (2011) the mean corrected correlation between feedback and engagement was .33.

Hypothesis 32: Engagement will mediate the relationship between feedback and (a) creative performance, (b) task performance, and (c) OCB

Supervisor Support and Engagement. Supervisor support falls under the interpersonal level of job resources (Bakker et al., 2007). Again, these job resources have a positive influence on engagement. Chughtai and Buckley (2011) found that trust in supervisor was positively related to engagement. In Christian et al. (2011)'s meta-analysis, the mean corrected correlation between social support and engagement was .32. Supervisor support influences employee engagement, which should then lead to higher performance.

Hypothesis 33: Engagement will mediate the relationship between supervisor support and (a) creative performance, (b) task performance, and (c) OCB

Hypothesized Model for Study 2

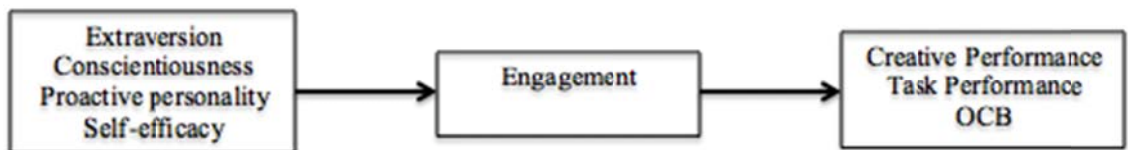
The model to be tested in *Study 2* is primarily drawn from suggested models of engagement (Bakker & Lieter, 2010, based off Bakker & Demerouti, 2007, 2008; Christian et al., 2010) and is presented below (*Figures 1 and 2*). Overall, *Study 2's* model specifies that both individual differences and job characteristics should have an impact on employee engagement, which in turn, should have a positive influence on performance at work.

While early meta-analysis (Christian et al., 2011) looked at a similar model, it did not include creative performance. There is strong evidence to suggest that creative performance should be included, based both on theory (Bakker & Lieter, 2010), and past findings. Further, the results from *Study 1* should also support this idea that creativity is a

distinct dimension of job performance, and therefore should be included in prediction models of performance at work.

To further describe this process model, as previously described research suggests, individual differences can influence how engaged someone will be at work, and engagement can result in higher job performance. Extraverted individuals have high energy and vigor, leading to engagement at work. Conscientious individuals have a strong sense of responsibility, resulting in being more involved in their job. They are also high in motivation through achievement striving, and are more competent, all of which results in work engagement. Proactive personality also influences how engaged an individual will be at work, because of the involvement aspect of proactive individuals' initiative and perseverance. Finally, self-efficacy is a motivator and has a positive influence on engagement. All of these individual differences lead to engagement, and engagement leads to creative performance, task performance, and OCB.

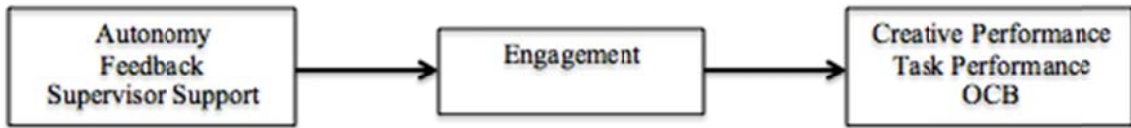
Figure 1. Individual differences as predictors of performance through engagement



As the review of literature suggested, job characteristics can also affect how engaged someone is at work, and again, engagement ultimately influences job performance. Autonomy results in engagement because it is intrinsically motivating. Feedback results in individuals being more willing to invest energy into job tasks, and being more engaged. Supervisor support leads to higher trust and engagement in

employees. This engagement leads to better creative performance, task performance, and OCB.

Figure 2. Job characteristics as predictors of performance through engagement



CHAPTER III: METHODS

This dissertation is comprised of two related studies. *Study 1* uses meta-analysis to estimate the relationships between creative performance and task performance/OCB. *Study 2* tests a process model that includes creative performance, task performance, and OCB as the dependent variables. Below I describe the methods and analytic procedures used in these studies.

Study 1

Overview

Study 1 is a meta-analytic synthesis of the relationships between creative performance and other performance dimensions. Specifically, I look at the correlation between creative performance and task performance and the correlation between creative performance and OCB. Further, I also explore the influence of the following moderators on these relationships as research questions: rating source, study location, age, tenure, gender, and direction of OCB (OCB-I vs. OCB-O).

Database

To identify studies to be included in the meta-analysis, I searched PsycInfo, ABI/Inform, and Google Scholar electronic databases. To identify creative performance-task performance relationships, I used the following search terms: ("creativ*" OR "innovat*") AND ("job performance" OR "task performance" OR "in-role performance"). To identify creative performance-OCB relationships, I used the following search terms: ("creativ*" OR "innovat*") AND ("organizational citizenship behavior" OR "organizational citizenship behaviour" OR "contextual performance" OR "contextual behavior" OR "contextual behaviour" OR "extrarole behavior" OR "extra-

role behavior" OR "extra role behavior" OR "extrarole behaviour" OR "extra-role behaviour" OR "extra role behaviour"). These searches yielded a total of 509 studies for creative performance-task performance and 38 studies for creative performance- OCB.

Inclusion Criteria. Selection for inclusion was based on the following criteria. First, the study has to report zero-order correlations between a measure of creativity/innovation performance and a measure of Task Performance/OCB, or statistics that could be converted to zero-order correlations. Second, the study had to be conducted on a working sample. Third, creativity or innovation scales had to be measure of behavior (i.e. not performance on creativity test or use of a creative sample of work such as an art piece), namely creative performance at work. Of the 509 initial task performance studies, 27 met these criteria, and of the 38 OCB studies, 15 met these criteria.

Among the studies that met these initial criteria, two of the studies in the creative performance-task performance meta-analysis had mixed raters. Specifically, one study used self-ratings of creative performance and supervisory ratings of task performance (Janssen & Giebels, 2013), and the other study used supervisory ratings of creative performance and self-ratings of task performance (Laurence, 2010). Because there were only two studies like this, they were excluded from analyses because there was only one study of each and it is not possible to meta-analyze one study. Thus, for all studies included, the same rater rated both creative performance and task performance/OCB. This brought the final amount of studies included in the creative performance-task performance meta-analysis to 25 (while the number of creative performance-OCB studies remained 15).

Procedure

Both myself and another Doctoral candidate coded each study for the following information: correlation, reliability (i.e., coefficient alpha), sample size, and moderators. Inter-coder agreement was initially 96% and all disagreements were resolved between us, resulting in 100% agreement.

Meta-analytic calculations were conducted according to the procedures outlined by Hunter and Schmidt (2004). I computed the sample size-weighted uncorrected correlation, its standard deviation, the sample size-weighted corrected correlation (ρ), its standard deviation, 80% credibility interval, and 95% confidence interval. The 80% credibility interval is an index of the variability among effect sizes included in the analyses. The 95% confidence interval describes the likely amount of error in the estimate of ρ due to sampling error. Corrections for unreliability were made using an artifact distribution of the coefficient alpha reliability estimates reported in the studies. Although the use of interrater reliability is more appropriate for correcting performance ratings (cf. Schmidt, Viswesvaran, & Ones, 2000; Ones, Viswesvaran, & Schmidt, 2008), I did not find much interrater reliability in the database compiled here.

Where studies included multiple measures of the same construct, I formed composites using the methods outlined by Hunter and Schmidt (2004). I estimated the reliability of composites using the Spearman-Brown prophecy formula. Mostly this applied to studies that had two measures of OCB – one would be OCB-I and one would be OCB-O (i.e. Alge et al., 2006; Kahya, 2009; Raja & Johns, 2010; Tse & Chui, 2013) so I created a composite that included both as OCB. One study reported creative

performance-task performance/OCB correlations at two points (i.e., Binnewies et al., 2009), and I considered them two separate samples.

I also had research questions concerning both categorical (rater source, study location, OCB-I vs. OCB-O) and continuous moderators (average age, average tenure, gender). To assess the presence of categorical moderators, I repeated the meta-analysis procedures including only studies at each level of each moderator. Moderation was present when the 95% confidence intervals around each estimate of ρ for each level of a given moderator did not overlap. In order to assess the continuous moderators, I conducted two sets of analyses. First, I correlated the continuous moderators (average age, average tenure, and % female in each study) with the creative performance-task performance/OCB correlations. Second, I specified two multiple regression models. For this first model, I regressed the creative performance-task performance correlations onto the continuous moderators. For the second, I regressed the creative performance-OCB correlations onto the continuous moderators. A significant relationship (i.e., correlation or regression coefficient) between a continuous moderator and the creative performance-task performance/OCB relationships would indicate the presence of moderation.

Study 2

Participants

Participants in this study were working adults in the United States. The participants were recruited using Amazon's Mechanical Turk. Mechanical Turk is a platform that researchers can use to gather anonymous data via online surveys by paying participants a nominal fee. For this study, participants were compensated \$1.00 for their responses. Mechanical Turk allows for sampling from a wide range of jobs and industries. Reviews of Mechanical Turk have concluded that there are only slight differences if any between Mechanical Turk and other samples used in research and that the data from the Mechanical Turk platform is valid when data quality enhancement techniques are applied (Barger, Behrend, Sharek, & Sinar, 2011). Accordingly, I applied such techniques by removing participants with questionable responses (i.e., random responding, answering validity questions incorrectly) from the analyses. In order to participate in this study, participants had to be US Citizens and currently employed for at least 20 hours per week in an organization with coworkers and a supervisor.

After cleaning the data I had 299 useable and complete surveys. The sample was 53% male. The average age of the participants was about 35 ($M = 35.10$, $SD = 11.44$). The average job tenure was 6.54 years ($SD = 6.18$). Sixty-nine percent of the participants worked full time and the remaining 31% worked part time. The majority of the participants reported their race/ethnicity as Caucasian (82%), 6% were Black/African American, 6% were Hispanic/Latino, 5% were Asian, and the remainder reported their race as "other."

Measures

Below I describe the measures used in *Study 2*. These measures can be found in the *Appendix*.

Big Five. Although *Study 2* is mainly concerned with extraversion and conscientiousness, I measured all the Big Five traits in order to be comprehensive. Big Five traits was measured by the IPIP Neo. Each of the Big Five traits were assessed with ten items. Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. Each of the Big Five had five positively worded items and five negatively worded items. Cronbach's alpha for this study was .94 for extraversion, .91 for conscientiousness, .92 for emotional stability, .84 for agreeableness, and .79 for openness to experience.

Proactive Personality. To measure proactive personality, Siebert et al.'s (2001) scale was used. It is the 10-item version of Bateman and Crant's (1993) measure. An example item is "If I see something I don't like, I fix it." Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. Proactive personality had a Cronbach's alpha of .92 for this study.

Self-efficacy. Self-efficacy was measured using the Generalized Self-efficacy scale (Schwarzer & Jerusalem, 1995). It contains ten items which participants indicate to what extent each statement is 1 (*not at all true*) to 4 (*exactly true*). An example item is "I can usually handle whatever comes my way." The Generalized Self-efficacy scale had a Cronbach's alpha of .92 for this study.

Autonomy. Autonomy was measured by using Breugh's (1985) scale. The scale contains nine items about work method autonomy, work scheduling autonomy, and work

criteria autonomy. A sample item is “I have control over the scheduling of my work.” Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. Autonomy in the current study had a Cronbach’s alpha of .92.

Feedback. Feedback was measured using Zhou’s (2003) 3-item measure. A sample item is “My supervisor provides me with useful information on how to improve my job performance.” Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. Feedback contained both positive and negatively worded items and had a Cronbach’s alpha of .81 in the current study.

Supervisor Support. Supervisor support was measured using Oldham and Cummings (1995). The measure contains eight items. A sample item is “my supervisor encourages me to develop new skills.” Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. Supervisor support contained both positively and negatively worded items. Supervisor support in the current study had a Cronbach’s alpha of .90.

Engagement. To measure engagement I used the UWES-employee version by Schaufeli et al. (2002). It is the most popular measure of engagement used in academic research. This measure includes the subscales of vigor, dedication, and absorption. Vigor contains six items, dedication contains five items, and absorption contains six items. An example item (vigor) is “At my work I feel bursting with energy.” Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. The UWES had a Cronbach’s alpha of .93 in this study.

Creative Performance. Creative Performance was measured using Zhou and George’s (2001) 13-item scale where statements are measured on a 5-point Likert-type

scale from 1 (*strongly disagree*) to 5 (*strongly agree*) where participants indicated how much they agree the items correspond with how they perform at work. An example item is “often has new and innovative ideas.” Cronbach’s alpha for creative performance in the current study was .95.

Task Performance. Task performance was measured using an adapted to self-rating from Van Dyne and LePine (1998). It contains four items. Participants rated from 1 (*strongly disagree*) to 5 (*strongly agree*) how much they agree with each item. An example item is “I fulfill the responsibilities specified in my job description.” Cronbach’s alpha was .94 in the current study.

OCB. To measure OCB, the OCB-checklist by Fox and Spector (2011) was used. It includes 20 items. Participants rate from 1 (*never*) to 5 (*everyday*) how often they do the statements at work. An example item is “volunteer for extra work assignments” Cronbach’s alpha for the OCB-checklist was .92 in this study.

Procedure

Participants completed *Study 2* online via Amazon’s Mechanical Turk and it took approximately twenty minutes complete. They were first presented with questions collecting demographic information and then the above-described scales in random order. The items within each scale were also randomized. I included six validity check items (example item: “select strongly agree for this item”). Participants who failed more than 2 of the validity check items were not included in this sample. Participants were compensated \$1.00 for their responses.

Analyses

I cleaned the data by checking for random responses. I included six validity check items and deleted any participant who incorrectly answered more than two of these items. These participants were not included in the final sample or any analyses. The final sample of 299 participants had a score for each measure and therefore I had no missing data. The data for *Study 2* was evaluated for multivariate outliers by examining leverage indices for each individual and defining an outlier as a leverage score four times greater than the mean leverage. I also computed the *df Beta* for each regression and defined an outlier as larger than the absolute value of one. No outliers were detected.

Prior to analyzing the proposed hypotheses I also ran a series of confirmatory factor analyses (CFA) to test that the measures represented independent constructs. In order to test Hypotheses 3-26 in *Study 2*, I first calculated the correlations between the study variables. Hypotheses 27-33 concern the mediating role of engagement so I partial model tested using regression. In order to assess if there was mediation I used Baron and Kenny's (1986) approach. In Baron and Kenny's approach three regression analyses are conducted. First (Model 1), you regress the mediator onto the independent variable. Next, (Model 2), the dependent variable is regressed onto the independent variable. In the third regression (Model 3), the dependent variable is regressed onto the independent variable and mediator. In order to provide support for mediation the mediator needs to be significantly affected by the independent variable (Model 1), the dependent variable needs to be affected by the independent variable (Model 2), and the dependent variable needs to be affected by the mediator while controlling for the independent variable

(Model 3). The effect of the independent variable on the dependent variable needs to be less in Model 3 than in Model 2 in order to establish that mediation occurred.

CHAPTER IV: RESULTS

Study 1

Study 1 is a meta-analysis of the relationship between creative performance and task performance and between creative performance and OCB. Below I present the results concerning the relationship between these variables and potential moderators of the relationship.

Reliability Distributions. Before I present the results of the meta-analysis, I review the reliability estimates for the three types of criteria examined in the present meta-analysis. Table 1 reports the results of a meta-analysis of the coefficient alphas reported in the studies included in the meta-analysis by criteria and rater source. These results were calculated using sample size-weighting and frequency-weighting. I also repeated these analyses using the square root of the reliabilities. Specifically, column 1 included the source of the performance rating, column 2 is the total sample size (total number of individuals rated across studies included in that meta-analysis), and column 3 is the number of estimates included in the analyses. Columns 4 and 5 are the sample size-weighted mean and standard deviation of the values that were meta-analyzed. Columns 6 and 7 included the unweighted (or frequency-weighted) mean and standard deviations. Columns 8 and 9 report the sample size-weighted mean and standard deviations of the square roots. Lastly, columns 10 and 11 report the unweighted (or frequency-weighted) mean and standard deviation of the square root of the reliabilities.

Concerning these tables, one study (Alge et al., 2006) included information on rater source as “peer, subordinate, and supervisor.” I included this paper in analyses as “other rater” but not as peer or supervisor.

As seen in Table 1, the creative performance sample size-weighted mean alpha reliability ranged from .89 (peer rater) to .93 (supervisor rater), with an overall sample size-weighted mean alpha reliability across sources of .91. Task performance ranged from .80 (peer rater) to .88 (supervisor rater), with an overall sample size-weighted mean alpha reliability across sources of .85. Organizational citizenship behavior ranged from .66 (peer rater) to .85 (supervisor rater). The sample size-weighted mean alpha reliability across sources was .76. It is interesting to note that for all three criteria the highest sample size-weighted mean alpha reliability were for the supervisor raters and the lowest sample size-weighted mean reliability were for the peer raters.

Creative performance displayed the highest sample size-weighted mean alpha reliability in Table 1, ranging from .89-.93, followed by task performance (.80-.88), and then OCB (.66-.85). This can be partly due to creative performance scales containing more items than task performance or OCB scales. For example, the average length of creative performance scales was 8.24 items, while the average length of task performance and OCB scales were 5.10 items and 5.71 items, respectively. Because of this variability in scale length, I also used the Spearman-Brown formula to estimate the reliabilities if all the scales were the same length (10 items). These adjusted estimates are presented in Table 2.

Creative performance again displayed sample size-weighted mean alpha reliabilities in the .90-range. This time, however, peer raters had the highest sample size-weighted mean alpha reliability at .96, and self-rater displayed the lowest at .92. The sample size-weighted mean reliability for creative performance across all sources was .93. Task performance ranged from .85 (peer rater) to .93 (supervisor rater), with a sample

size-weighted mean reliability across sources at .92. The largest increase in sample size-weighted mean reliability after adjusting for scale length was for OCB. Peer ratings still had the lowest sample size-weighted mean reliability at .87, however it was a large increase from .66. Again, supervisor ratings had the highest sample size-weighted mean reliability (.93). The sample size-weighted mean reliability across sources was .90.

Although the results varied slightly by sources, creative performance still had the highest sample size-weighted mean reliability of .93, followed by task performance at .92, and OCB at .90.

Table 1. Summary of Coefficient Alpha Reliabilities

Rating Source	<i>N</i>	<i>K</i>	<i>Mwt</i>	<i>SDwt</i>	<i>Munwt</i>	<i>SDunwt</i>	<i>Msqwt</i>	<i>SDsqwt</i>	<i>Msqunwt</i>	<i>SDsqunwt</i>
Creative Performance										
All sources	8722	29	.91	.04	.92	.04	.95	.02	.96	.02
Other rater	5216	23	.92	.05	.92	.05	.96	.02	.96	.03
Supervisor	4368	20	.93	.05	.92	.05	.96	.03	.96	.03
Peer	545	2	.89	.02	.91	.03	.95	.01	.95	.01
Self	3506	6	.9	.01	.91	.02	.95	.01	.95	.01
Task Performance										
All sources	7526	23	.85	.05	.85	.06	.92	.03	.92	.03
Other rater	4020	17	.87	.06	.86	.06	.93	.03	.93	.03
Supervisor	3475	15	.88	.05	.87	.06	.93	.03	.93	.03
Peer	545	2	.8	.06	.83	.07	.95	.01	.92	.03
Self	3506	6	.83	.04	.82	.05	.91	.02	.9	.03
OCB										
All sources	5087	14	.76	.09	.8	.1	.87	.05	.89	.06
Other rater	2209	10	.79	.13	.83	.11	.89	.07	.91	.07
Supervisor	1361	7	.85	.07	.85	.07	.92	.04	.92	.04
Peer	545	2	.66	.17	.74	.19	.81	.1	.9	.06
Self	2878	4	.74	0	.74	0	.86	0	.86	.06

K = number of reliabilities included in the meta-analysis; *wt* = sample size-weighted; *unwt* = unweighted or frequency-weighted; *sqwt* = square root of the estimates, weighted; *squnwt* = square root of the estimates, unweighted

Table 2. Spearman Brown Corrected Alpha Reliabilities

Rating Source	<i>N</i>	<i>K</i>	<i>Mwt</i>	<i>SDwt</i>	<i>Munwt</i>	<i>SDunwt</i>	<i>Msqwt</i>	<i>SDsqwt</i>	<i>Msqunwt</i>	<i>SDsqunwt</i>
Creative Performance										
All sources	8722	29	.93	.03	.94	.04	.97	.02	.97	.02
Other rater	5216	23	.95	.03	.94	.03	.97	.02	.97	.02
Supervisor	4368	20	.94	.03	.94	.03	.97	.02	.97	.02
Peer	545	2	.96	0	.97	.01	.98	0	.98	0
Self	3506	6	.92	.03	.91	.04	.96	.02	.95	.02
Task Performance										
All sources	7526	23	.92	.05	.92	.05	.96	.03	.96	.03
Other rater	4020	17	.92	.05	.92	.05	.96	.03	.96	.03
Supervisor	3475	15	.93	.04	.93	.04	.97	.02	.96	.02
Peer	545	2	.85	.05	.91	.05	.98	0	.95	.03
Self	3506	6	.92	.04	.9	.04	.96	.03	.95	.02
OCB										
All sources	5087	14	.9	.03	.9	.04	.95	.02	.95	.02
Other rater	2209	10	.92	.03	.92	.03	.96	.01	.96	.01
Supervisor	1361	7	.93	.01	.93	.02	.96	.01	.96	.01
Peer	545	2	.87	.01	.9	.04	.94	.01	.95	.02
Self	2878	4	.88	.03	.86	0	.94	.02	.93	0

K = number of reliabilities included in the meta-analysis; *wt* = sample size-weighted; *unwt* = unweighted or frequency-weighted; *sqwt* = square root of the estimates, weighted; *squnwt* = square root of the estimates, unweighted

Hypothesis Testing. Table 3 presents the results of the creative performance-task performance and creative performance-OCB meta-analyses. First I review the findings in the creative performance-task performance meta-analysis. Then I review the findings from the creative performance-OCB meta-analysis. I computed the sample size-weighted uncorrected correlation, its standard deviation, the sample size-weighted corrected correlation (ρ), its standard deviation, 80% credibility interval and 95% confidence interval. I made corrections for unreliability using an artifact distribution of the coefficient alpha reliability estimates reported in the studies. I also had some research questions pertaining to potential moderators. In terms of rating source, I conducted analyses across all rating sources (i.e., self, supervisor, peer), other raters (which included both supervisors and peers), only supervisor-raters, and only self-raters. Only two studies (Ng & Feldman, 2009; Raja & Johns, 2010) used peer raters and therefore I did not include peer raters in the rating source moderator analyses.

Creative Performance and Task Performance. The meta-analysis revealed that creative performance-task performance relationship was $\rho = .51$ (corrected for alpha unreliability in both criterion), which would be considered medium-to-large according to Cohen's (1992) rules of thumb. Only 15.32% of the variance was accounted for by statistical artifacts, suggesting the presence of moderators, which is tested and discussed in a later section. The 80% credibility interval ranged from .35 to .67, implying that multiple population correlations underlie this effect. These results show support for Hypothesis 1a. Further, this correlation was largest for other-rated and supervisor-rated performance ($\rho = .51$ for both) and slightly lower for self-rated performance ($\rho = .46$). I discuss the role of rating source as a moderator in a later section.

It is important to note that the corrected correlations reported above are corrected using coefficient alphas. Coefficient alpha accounts for item specific error and random noise (cf. Schmidt et al 2000). To generalize across raters, we need to correct the observed correlation with inter-rater reliability. Given that most of the studies did not report inter-rater reliability of ratings, I did not correct for rater idiosyncratic error. Viswesvaran et al. (1996) report that interrater reliability is lower than alphas for many dimensions of performance. To the extent this is true, the correlations reported here are underestimates.

Creative Performance and OCB. The creative performance-OCB relationship was also medium-to-large in magnitude according to Cohen's (1992) rules of thumb, as the corrected correlation was $\rho = .49$. Once again, only a small amount of variance (11.85%) was accounted for by statistical artifacts, suggesting the presence of moderators. The 80% credibility interval also had a large range (.27 to .71), which again suggested that multiple population correlations might be underlying this effect. Overall, these findings support Hypothesis 1b. Further, the corrected correlation was larger for other-rated ($\rho = .69$) and supervisor-rated ($\rho = .59$), and slightly lower for self-rated performance ($\rho = .43$).

Creative Performance as a Separate Dimension. Hypotheses 2 predicted that while creative performance should have a relationship with both task performance and OCB, the correlation should not be approaching 1.00. Creative performance displayed medium to large correlations with the other performance dimensions, however, the correlations were significantly different from 1.00. The upper bound 95% CIs for creative performance-task performance ranged from .52 to .64, and .47 to .80 for the creative

performance-OCB relationship, providing some initial supporting Hypothesis 2.

However, because these correlations were not corrected for inter-rater reliability, they are actually underestimates. If I had the data to correct for inter-rater reliability, the relationship may be higher and approaching 1.0.

Table 3. Meta-analyses Between Creative Performance and Task Performance and Between Creative Performance and OCB

Moderator	<i>K</i>	<i>N</i>	<i>r</i>	σr	ρ	$\sigma \rho$	% Var	<i>CVL</i>	<i>CVU</i>	<i>CIL</i>	<i>CIU</i>
Creative Performance – Task Performance											
All Studies	25	7872	.45	.12	.51	.13	15.32	.35	.67	.46	.56
Other rater	19	4467	.51	.13	.58	.14	15.12	.4	.76	.52	.64
Supervisors	17	3821	.51	.13	.58	.14	15.11	.39	.76	.52	.64
Self	6	3506	.39	.07	.46	.08	22.24	.35	.56	.40	.52
Creative Performance – OCB											
All Studies	15	5230	.43	.16	.49	.17	11.85	.27	.71	.41	.57
Other rater	11	2352	.52	.19	.69	.21	11.04	.33	.87	.58	.80
Supervisor	9	1807	.52	.22	.59	.24	6.74	.28	.9	.45	.73
Self	4	2878	.35	.04	.43	.05	41.91	.37	.49	.39	.47
OCB-I	6	1328	.46	0	.52	0	100	.52	.52	.52	.52
OCB-O	4	1005	.44	0	.52	0	100	.52	.52	.52	.52

K = number of reliabilities included in the meta-analysis; *N* = sample size; *r* = sample size-weighted uncorrected correlation; σr = standard deviation of *r*; ρ = sample size-weighted corrected correlation; $\sigma \rho$ = standard deviation of ρ ; %Var = percent of variance accounted for by statistical artifacts; *CVL* 80% credibility interval lower limit; *CVU* 80% credibility interval upper limit; *CIL* 95% confidence interval lower limit; *CIU* 95% confidence interval upper limit

Moderators. I suggested and explored research questions concerning different moderators. These findings are presented in Tables 3, 4, 5, and 6.

Rater Source as Moderator. The first research question concerns rater source as a potential moderator of the creative performance-task performance/OCB relationships. I found that the creative performance-task performance relationship differs when comparing self-rater ($\rho = .46$) to other-rater ($\rho = .58$); note that in Table 3, the upper limit of self-rater 95% confidence intervals is .52 and the lower limit of other-rater 95% confidence intervals is .52, however when not rounded to two decimal places, they do not overlap). Further, this is also echoed in the results for the creative performance-OCB relationship where again the confidence intervals for self-rater ($\rho = .43$) and other-rater ($\rho = .69$) do not overlap. These results suggest that rater (self vs. other) moderates the relationship between creative performance and task performance and between creative performance and OCB, such that relationship between creative performance and task performance and creative performance and OCB is stronger when the rater for both criteria is other-rater.

Location as Moderator. Research question 2 asked whether study location moderated the relationships between the criteria. These results can be found in Table 4. I grouped the samples into three locations – Asia, Europe, and US. For task performance, the Asian countries included were China, Taiwan, and Singapore. The European countries were Germany, Ireland, and The Netherlands. For OCB, the Asia results only included China. The European countries were Germany and The Netherlands. I did not group Turkey, Pakistan, or Australia (which only appeared in the task performance meta) into any of these locations and therefore studies in these countries, along with studies who

did not report the country their sample was located in, were excluded from this moderator analysis.

The corrected correlation between creative performance and task performance was .55 in Asia, .42 in Europe, and .68 in the US. Furthermore, I observed evidence of moderation, as the creative performance-task performance relationship in samples from Europe (95% CI = .37, .47) was significantly different from the relationship observed in samples from Asia (95% CI = .48, .62) and the United States (95% CI = .64, .72).

The corrected correlation between creative performance and OCB was .42 in Asia, .42 in Europe, and .75 in the US. The 95% confidence intervals for Europe did not overlap with the US. These findings suggest that country moderated the creative performance-OCB relationship, such that the relationship is significantly larger in the US as compared to Europe.

Table 4. Location as a Moderator

Moderator	K	N	r	σr	ρ	$\sigma \rho$	% Var	CVL	CVU	CIL	CIU
Creative Performance – Task Performance											
Asia	9	2370	.48	.1	.55	.11	21.12	.4	.69	.48	.62
EU	8	3525	.37	.07	.42	.08	30.15	.32	.52	.37	.47
US	5	1188	.6	.04	.68	.03	68.69	.64	.73	.64	.72
Creative Performance – OCB											
Asia	4	745	.36	.21	.42	.24	10.07	.11	.72	.21	.63
EU	5	3035	.36	.06	.42	.06	40.02	.33	.5	.37	.47
US	4	915	.65	.14	.75	.15	20.11	.56	.94	.61	.89

Note. EU = Europe, US = United States

K = number of reliabilities included in the meta-analysis; *N* = sample size; *r* = sample size-weighted uncorrected correlation; σr = standard deviation of *r*; ρ = sample size-weighted corrected correlation; $\sigma \rho$ = standard deviation of ρ ; %Var = percent of variance accounted for by statistical artifacts; CVL 80% credibility interval lower limit; CVU 80% credibility interval upper limit; CIL 95% confidence interval lower limit; CIU 95% confidence interval upper limit

Continuous Moderators. Research questions 3-5 asked whether age (average age in each study), tenure (average job tenure in each study), and gender (measured as %female in each study) were moderators of the creative performance-task performance relationship. The results of these analyses are found in Tables 5 and 6. As shown on these tables, none of these variables were significant moderators. However, this could be due to sampling error because we only have a subset of the population or lack of power because there was only a small amount of data available. It is important to note some of the correlations (i.e. gender and creative performance-task performance, age and creative performance-OCB, and gender and creative performance OCB) display a medium effect size (Cohen, 1992).

Table 5. Relationships Between Continuous Moderators and the Creative Performance – Task Performance Correlation.

	1	2	3	β
1 <i>r</i>				
2 Age	.15			.61
3 Tenure	-.24	.71**		-.64
4 %Female	.32	.32	.03	.1

Note. ** $p < .05$. r = correlation between creative performance and task performance.

Table 6. Relationships Between Continuous Moderators and the Creative Performance – OCB Correlation.

	1	2	3	β
1 <i>r</i>				
2 Age	-.46			.21
3 Tenure	-.26	.78**		-.88
4 %Female	-.44	-.12	.02	-.2

Note. ** $p < .05$. r = correlation between creative performance and OCB.

OCB-I and OCB-O. The final research question (research question 6) asked whether or not the creative performance-OCB relationship differed depending on whether the OCB criteria was individually directed behaviors or organizationally directed behavior. As displayed on Table 3, I tested this question by meta-analyzing OCB-I and OCB-O separately. The corrected correlations between creative performance and both OCB-I and OCB-O were both .52, suggesting no difference between the relationship with creative performance for OCB-I and OCB-O.

Conclusion. In summary, I found support for Hypotheses 1 and 2. That is, creative performance shares a positive relationship with both task performance and OCB. Although there was a medium to large effect size, this relationship is not approaching 1.0. However, the correlation was not corrected for inter-rater reliability and therefore is an underestimate. In Study 2, I examine a single sample that includes the criteria and therefore able to get a finer grained look at the correlations between the criteria. Further, I also found that rater source and rater location were moderators, however, age, tenure, gender, and direction of OCB were not significant moderators, although this could be due to sampling error or lack of power. Table 7 summaries the findings in *Study 1*.

Table 7. Study 1 Hypotheses

Hypothesis/Research Question	Supported?
Hypothesis 1: Creative performance will be positively related to (a) task performance and (b) OCB	Supported
Hypothesis 2: Creative performance will be a distinct dimension of job performance, that is, its corrected correlation will task performance and OCB and be different from 1.0	Partially supported
Research Question 1: Does the rater source (self vs. other-rater) moderate the relationship between (a) creative performance and task performance (b) creative performance and OCB, such that when the rater source is other-rater, the relationship between criteria is stronger than if the rater source is self-rater?	Supported
Research Question 2: Does location (US, Europe, and Asia) moderate the relationship between creative performance and task performance/OCB?	Supported
Research Question 3: Does age moderate the relationship between creative performance and task performance/OCB?	Not supported
Research Question 4: Does tenure moderate the relationship between creative performance and task performance/OCB?	Not supported
Research Question 5: Does gender moderate the relationship between creative performance and task performance/OCB?	Not supported
Research Question 6: Does the creative performance-OCB relationship differ depending on whether the OCB is directed at the individual or at the organization?	Not supported

Study 2

Below I present the results of *Study 2*. Prior to analyses I cleaned the data by checking for random responses and incorrect responses to the validity check items. The results presented here are on the final sample of 299 complete surveys. I checked the completed surveys for outliers by examining leverage indices for each individual and computing the *df Beta* for each regression. No outliers were detected.

Common Method Variance. To estimate if common method variance influenced the relationships in this study I used the method described by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) that involves estimating the effect of an unmeasured latent method factor across items. I incorporated the method factor into two CFA models: (1) individual differences (extraversion, conscientiousness, proactive personality, and self-efficacy) and (2) job characteristics (autonomy, feedback, and supervisor support). For the individual differences model the method factor accounted for 18% of the variance, and in the job characteristics model the method factor accounted for 6% of the variance. Common method variance may have somewhat inflated the correlation among variables in *Study 2*, however, the effect was not too great.

Confirmatory Factor Analysis. Before I tested the proposed hypotheses I also tested the factor structure of the measures in the study. Specifically, I tested whether or not each group of variables (i.e., individual differences, job characteristics, and performance measures) represented distinct constructs rather than one factor. Because the models were nested I was able to test whether or not the proposed factor structure (i.e. each measure as a distinct construct) or a one-factor model fit the data better. Results of

χ^2 difference tests indicated that the proposed factor structure fit the data better than a one-factor model. These results are presented in Table 8.

Table 8. χ^2 Difference Tests for Proposed Factor Structure Versus One-factor Model

	Proposed Factor Structure	One-Factor Model	χ^2 difference
Individual Differences	χ^2 (df) = 1745.0 (734)	χ^2 , (df) = 3802.8 (743)	2057.8 (9)
Job Characteristics	χ^2 (df) = 526.6 (167)	χ^2 , (df) = 1906.0 (172)	1379.4 (5)
Performance Criteria	χ^2 (df) = 1470.8 (626)	χ^2 , (df) = 3931.6 (631)	2460.8 (5)

I also tested the proposed factor structure of engagement. Results of the CFA indicated adequate model fit: χ^2 (df)=374.1 (116), $p < .01$, CFI = .91, TLI = .88, RMSEA = .09, p -close $< .01$.

Hypothesis Testing. Table 9 presents the means, standard deviations, and correlations between the variables in this study. Hypotheses 3-26 concern the relationships between individual differences and performance (Hypotheses 3-14), job characteristics and performance (Hypotheses 15-23), and engagement and performance (Hypotheses 24-26). I tested these hypotheses by using correlations and multiple regressions. For hypotheses 27-33, in which I predicted that engagement is a mediator between individual differences/job characteristics and performance I tested the hypotheses using Baron and Kenny (1986) procedures.

Table 9. Means, Standard Deviations, and Correlations Among Study Variables.

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Openness to Experience	3.85	.67													
2. Agreeableness	3.92	.60	.33**												
3. Emotional Stability	3.69	.81	.15**	.49**											
4. Extraversion	3.22	.86	.38**	.38**	.48**										
5. Conscientiousness	3.95	.66	.21**	.46**	.50**	.26**									
6. Proactive Personality	3.75	.71	.34**	.27**	.41**	.36**	.59**								
7. Self-efficacy	3.21	.51	.34**	.38**	.50**	.38**	.54**	.68**							
8. Autonomy	3.42	.88	.11*	.09	.20**	.17**	.11	.30**	.36**						
9. Feedback	3.67	.92	.16**	.38**	.40**	.22**	.27**	.22**	.30**	.22**					
10. Supervisor Support	3.49	.71	.17**	.34**	.42**	.25**	.33**	.33**	.41**	.41**	.75**				
11. Engagement	3.62	.84	.20**	.40**	.48**	.31**	.49**	.53**	.52**	.43**	.39**	.51**			
12. Creative Performance	3.73	.78	.36**	.31**	.38**	.37**	.49**	.68**	.60**	.41**	.24**	.38**	.59		
13. Task Performance	4.47	.57	.29**	.37**	.25**	.19**	.43**	.28**	.42**	.16**	.32**	.34**	.40	.29**	
14. OCB	2.95	.68	.12*	.28**	.14*	.24**	.32**	.42**	.39**	.20**	.14**	.18**	.40	.48**	.21**

$N=299$ * $p < .05$, ** $p < .01$

Individual Differences and Performance. Hypotheses 3-14 predicted that each individual differences (extraversion, conscientiousness, proactive personality, and self efficacy) would be positively related to creative performance, task performance, and OCB. Extraversion was positively and significantly related to creative performance ($r = .38, p < .01$), task performance ($r = .19, p < .01$), and OCB ($r = .24, p < .01$), supporting Hypotheses 3, 5, and 7. Conscientiousness was also positively and significantly related to performance (creative performance: $r = .48, p < .01$; task performance: $r = .43, p < .01$; OCB: $.32, p < .01$), which supports Hypotheses 4, 6, and 8. I also found support for proactive personality being positively related to performance (Hypotheses 9-11). Proactive personality was related to creative performance ($r = .68, p < .01$), task performance ($r = .28, p < .01$), and OCB ($r = .42, p < .01$). Finally, I also found support for a relationship between self-efficacy and performance (Hypotheses 12-14). The correlation between self-efficacy performance were as follows: creative performance $r = .60, p < .01$, task performance $r = .42, p < .01$, and OCB $r = .39, p < .01$.

I also performed multiple regression analyses where I regressed the performance dimensions onto the individual differences. These results are displayed in Table 10. When creative performance was regressed onto the individual differences, extraversion ($\beta = .12, p < .01$), proactive personality ($\beta = .46, p < .01$), and self-efficacy ($\beta = .20, p < .01$) were all significant predictors of creative performance, providing support for Hypotheses 3, 9, and 12.

Table 10. Creative Performance Regressed onto Individual Difference Predictors

	<i>B</i>	SE <i>B</i>	β
Extraversion	.10	.04	.11**
Conscientiousness	.09	.06	.08
Proactive Personality	.50	.07	.46**
Self- Efficacy	.31	.09	.20**
<i>R</i> ²		.52	

N=299 **p* < .05, ***p* < .01

I also used multiple regression analyses to examine the effect of the individual differences on task performance. The results of this analysis are displayed in Table 11. Conscientiousness ($\beta = .34, p < .01$), proactive personality ($\beta = -.17, p < .01$), and self-efficacy ($\beta = .34, p < .01$) were all significant predictors of task performance, supporting Hypotheses 6, 10, and 13. However, extraversion was not a significant predictor of task performance (Hypothesis 5).

Table 11. Task Performance Regressed onto Individual Difference Predictors

	<i>B</i>	SE <i>B</i>	β
Extraversion	.02	.04	.04
Conscientiousness	.29	.06	.34**
Proactive Personality	-.13	.06	-.17*
Self- Efficacy	.38	.08	.34**
<i>R</i> ²		.25	

N=299 **p* < .05, ***p* < .01

Next I regressed OCB onto the individual difference predictors. Only proactive personality ($\beta = .23, p < .01$) and self-efficacy ($\beta = .16, p < .05$) were significant predictors of OCB, providing support for hypotheses 11 and 14. These results are displayed below in Table 12.

Table 12. OCB Regressed onto Individual Difference Predictors

	<i>B</i>	SE B	β
Extraversion	.06	.04	.08
Conscientiousness	.08	.07	.08
Proactive Personality	.22	.07	.23**
Self- Efficacy	.22	.09	.16*
<i>R</i> ²	.20		

N=299 * $p < .05$, ** $p < .01$

Job Characteristics and Performance. I also predicted that job characteristics (autonomy, feedback, and supervisor support) would be positively related to performance (Hypotheses 15-23). I tested these results using correlations and multiple regressions. Autonomy was positively and significantly related to creative performance ($r = .41, p < .01$), task performance ($r = .16, p < .01$), and OCB ($r = .20, p < .01$), supporting Hypotheses 15-17. Next, I predicted that feedback would positively predict performance (Hypotheses 18-20). I found support for a positive and significant relationship between feedback and creative performance ($r = .24, p < .01$), task performance ($r = .32, p < .01$), and OCB ($r = .14, p < .05$). The last job characteristic I predicted to be positively and significantly related to performance is supervisor support. Supervisor support was

positively and significantly related to creative performance ($r = .38, p < .01$), task performance ($r = .34, p < .01$), and OCB ($r = .18, p < .01$).

I also regressed the performance criteria onto the job characteristics to test Hypotheses 15-23. First I regressed creative performance onto autonomy, supervisor support, and feedback. I found that autonomy ($\beta = .20, p < .01$) and supervisor support ($\beta = .28, p < .01$) significantly predicted creative performance, providing support for Hypotheses 15 and 21, but feedback was not a significant predictor of creative performance, failing to provide support for Hypothesis 18. These results are displayed in Table 13.

Table 13. Creative Performance Regressed onto Job Characteristics

	<i>B</i>	SE B	β
Autonomy	.27	.05	.30**
Feedback	-.03	.07	-.03
Supervisor Support	.26	.08	.28**
<i>R</i> ²	.22		

N=299 * $p < .05$, ** $p < .01$

In order to test the effect of job characteristics on task performance, I also regressed task performance onto autonomy, supervisor support, and feedback. The results of this analysis is displayed in Table 14. I found that only supervisor support was a significant predictor of task performance ($\beta = .21, p < .05$), providing support for Hypothesis 22.

Table 14. Task performance Regressed onto Job Characteristics

	<i>B</i>	SE B	β
Autonomy	.03	.04	.04
Feedback	.10	.05	.15
Supervisor Support	.14	.06	.21*
<i>R</i> ²	.13		

N=299 **p* < .05, ***p* < .01

Finally, in order to test the effects of job characteristics on OCB, I also performed a multiple regression where I regressed OCB onto autonomy, supervisor support, and feedback. In this analysis, displayed below in Table 15, only autonomy ($\beta = .17, p < .01$) was a significant predictor of OCB, providing support for Hypothesis 17. However, neither feedback nor supervisor support were significant predictors of OCB.

Table 15. OCB Regressed onto Job Characteristics

	<i>B</i>	SE B	β
Autonomy	.13	.05	.17**
Feedback	.05	.06	.07
Supervisor Support	.04	.07	.05
<i>R</i> ²	.05		

N=299 **p* < .05, ***p* < .01

Engagement and Performance. Next, I hypothesized that engagement would be a positive predictor of creative performance (Hypothesis 24), task performance (Hypothesis 25), and OCB (Hypothesis 26). Engagement was positively and significantly related to all three types of performance. Engagement was most strongly related to creative

performance ($r = .59, p < .01$), but was also significantly related to task performance, ($r = .40, p < .01$) and OCB ($r = .40, p < .01$).

I also tested these relationship using multiple regressions. I regressed each of the performance criteria onto all the predictors (engagement, individual differences, and job characteristics). In each of these regressions, I found that engagement was a significant predictor of creative performance ($\beta = .22, p < .01$), task performance ($\beta = .18, p < .01$) and OCB ($\beta = .23, p < .01$), providing more support for Hypotheses 24-26.

Table 16. Creative Performance Regressed onto all Predictors and Engagement

	<i>B</i>	SE B	β
Extraversion	.09	.04	.10*
Conscientiousness	.07	.06	.06
Proactive Personality	.42	.06	.38**
Self-efficacy	.18	.09	.12*
Autonomy	.12	.04	.13**
Feedback	-.04	.05	-.05
Supervisor Support	.03	.06	.03
Engagement	.24	.06	.22**
<i>R</i> ²		.58	

N=299 * $p < .05$, ** $p < .01$

Table 17. Task Performance Regressed onto all Predictors and Engagement

	<i>B</i>	SE B	β
Extraversion	.00	.04	.00
Conscientiousness	.23	.06	.27**
Proactive			
Personality	-.15	.06	-.19**
Self-efficacy	.31	.08	.28**
Autonomy	-.02	.04	-.02
Feedback	.07	.05	.11
Supervisor	.02	.06	.04
Support			
Engagement	.14	.06	.18**
<i>R</i> ²	.30		

N=299 **p* < .05, ***p* < .01

Table 18. OCB Regressed onto all Predictors and Engagement

	<i>B</i>	SE B	β
Extraversion	.05	.04	.06
Conscientiousness	.04	.07	.04
Proactive			
Personality	.17	.07	.18*
Self-efficacy	.18	.10	.13
Autonomy	.02	.04	.03
Feedback	.03	.06	.04
Supervisor	-.10	.07	-.13
Support			
Engagement	.22	.07	.23**
<i>R</i> ²	.24		

N=299 **p* < .05, ***p* < .01

Engagement as a Mediator. Up until this point I have found support that individual differences, job characteristics, and engagement are all positively correlated with creative performance, task performance, and OCB. When I moved analyses into a multiple regression framework, I found that most of the individual differences and job

characteristics still predicted creative performance, task performance, and OCB. I also found that engagement was a significant predictor of creative performance, task performance, and OCB. For Hypotheses 27-33 I predicted that engagement is a mediator between individual differences/job characteristics and performance. Below I test and explain these findings.

In order to test for mediation using the guidelines outlined in Baron and Kenny (1986), three regression analyses were run. First (Model 1), I regressed the mediator (engagement) onto the independent variable (individual difference or job characteristic). Next, (Model 2), the dependent variable (performance – creative performance, task performance, or OCB) was regressed onto the independent variable (individual difference or job characteristic). In the third regression (Model 3), the dependent variable (performance) was regressed onto the independent variable (individual difference or job characteristic) and mediator (engagement). To support mediation the mediator needs to be significantly affected by the independent variable (Model 1), the dependent variable needs to be affected by the independent variable (Model 2), and the dependent variable needs to be affected by the mediator while controlling for the independent variable (Model 3). The effect of the independent variable on the dependent variable needs to be less in Model 3 than in Model 2 in order to establish that mediation occurred.

Engagement as a Mediator between Individual Differences and Performance.

Hypotheses 27-30 predicted that engagement would mediate the relationship between individual differences and a) creative performance, b) task performance, c) OCB.

Hypothesis 27 predicted that engagement mediated the relationship between extraversion and performance. As seen in Table 19 the beta weight of extraversion dropped when

engagement was added to the models, providing support for the hypotheses that engagement mediates the relationship between extraversion and a) creative performance, b) task performance, and c) OCB.

Table 19. Engagement as a Mediator Between Extraversion and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Extraversion	.25**	.05	.31**
Creative Performance			
Model 2			
Extraversion	.34**	.05	.38**
Model 3			
Extraversion	.20**	.04	.22**
Engagement	.57**	.05	.53**
Task Performance			
Model 2			
Extraversion	.16**	.04	.19**
Model 3			
Extraversion	.05	.04	.08
Engagement	.30**	.04	.37**
OCB			
Model 2			
Extraversion	.19**	.04	.24**
Model 3			
Extraversion	.10*	.04	.13*
Engagement	.34**	.05	.36**

N=299 **p* < .05, ***p* < .01

Hypothesis 28 predicted that engagement would mediate the relationship between conscientiousness and performance. As shown in Table 20 when engagement was added to the model the effect of conscientiousness on performance dropped providing support for mediation.

Table 20. Engagement as a Mediator Between Conscientiousness and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Conscientiousness	.52**	.06	.49**
Creative Performance			
Model 2			
Conscientiousness	.57**	.06	.48**
Model 3			
Conscientiousness	.30**	.06	.26**
Engagement	.51**	.06	.47**
Task Performance			
Model 2			
Conscientiousness	.37**	.05	.43**
Model 3			
Conscientiousness	.26**	.05	.31**
Engagement	.20**	.05	.25**
OCB			
Model 2			
Conscientiousness	.32**	.06	.32**
Model 3			
Conscientiousness	.17**	.06	.16**
Engagement	.30**	.06	.32**

N=299 * $p < .05$, ** $p < .01$

I also found support for engagement mediating the relationship between proactive personality and performance. These results are displayed in Table 21. Again, the beta weight for proactive personality was lowered when engagement was controlled for in the model, providing support for Hypothesis 29.

Table 21. Engagement as a Mediator Between Proactive Personality and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Proactive Personality	.53**	.05	.53**
Creative Performance			
Model 2			
Proactive Personality	.75**	.05	.68**
Model 3			
Proactive Personality	.56**	.05	.51**
Engagement	.35**	.05	.32**
Task Performance			
Model 2			
Proactive Personality	.22**	.05	.28**
Model 3			
Proactive Personality	.07	.05	.09
Engagement	.28**	.05	.35**
OCB			
Model 2			
Proactive Personality	.36**	.05	.42**
Model 3			
Proactive Personality	.27**	.06	.29**
Engagement	.23**	.06	.25**

N=299 **p* < .05, ***p* < .01

I also predicted that engagement would mediate the relationship between self-efficacy and the three types of performance. Hypothesis 30 was supported as seen in the results displayed in Table 22.

Table 22. Engagement as a Mediator Between Self-efficacy and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Self-efficacy	.72**	.07	.52**
Creative Performance			
Model 2			
Self-efficacy	.92**	.07	.60**
Model 3			
Self-efficacy	.61**	.07	.40**
Engagement	.42**	.05	.39**
Task Performance			
Model 2			
Self-efficacy	.47**	.06	.42**
Model 3			
Self-efficacy	.33**	.07	.30**
Engagement	.20**	.05	.25**
OCB			
Model 2			
Self-efficacy	.52**	.07	.40**
Model 3			
Self-efficacy	.33**	.08	.25**
Engagement	.26**	.06	.27**

N=299 **p* < .05, ***p* < .01

Engagement as a Mediator between Job Characteristics and Performance. The last Hypotheses (31-33) predicted that the relationship between situational characteristics and performance (creative performance, task performance, and OCB) would be mediated by engagement. The results of these hypotheses are displayed in Tables 13-15.

Hypothesis 31 predicted that the relationship between autonomy and performance would be mediated by engagement. As seen in Table 23 the beta weight of autonomy dropped when engagement was added to the model providing support for Hypothesis 31.

Table 23. Engagement as a Mediator Between Autonomy and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Autonomy	.35**	.04	.44**
Creative Performance			
Model 2			
Autonomy	.36**	.05	.41**
Model 3			
Autonomy	.16**	.05	.19**
Engagement	.56**	.06	.51**
Task Performance			
Model 2			
Autonomy	.10**	.04	.16**
Model 3			
Autonomy	-.01	.04	-.02
Engagement	.32**	.05	.41**
OCB			
Model 2			
Autonomy	.16**	.04	.21**
Model 3			
Autonomy	.03**	.05	.04**
Engagement	.36**	.06	.38**

*N=299 *p < .05, **p < .01*

Next, I predicted in Hypothesis 32 that engagement would mediate the relationship between feedback and performance. Again, I found support for Hypothesis 32 as shown in Table 24.

Table 24. Engagement as a Mediator Between Feedback and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Feedback	.30**	.04	.39**
Creative Performance			
Model 2			
Feedback	.20**	.05	.24**
Model 3			
Feedback	.01	.04	.13
Engagement	.64**	.06	.59**
Task Performance			
Model 2			
Feedback	.20**	.03	.32**
Model 3			
Feedback	.12**	.04	.19**
Engagement	.26**	.05	.33**
OCB			
Model 2			
Feedback	.11*	.04	.15*
Model 3			
Feedback	-.01	.04	-.01
Engagement	.38**	.06	.40**

N=299 **p* < .05, ***p* < .01

Finally, I predicted that the relationship between supervisor support and a) creative performance, b) task performance, and c) OCB. As show in Table 25, Hypothesis 32 was supported by the data.

Table 25. Engagement as a Mediator Between Supervisor Support and Performance

Variable	B	SE B	β
Engagement			
Model 1			
Supervisor Support	.43**	.04	.51**
Creative Performance			
Model 2			
Supervisor Support	.35**	.05	.38**
Model 3			
Supervisor Support	.09	.05	.10
Engagement	.59**	.06	.54**
Task Performance			
Model 2			
Supervisor Support	.23**	.04	.34**
Model 3			
Supervisor Support	.12**	.04	.18**
Engagement	.24**	.05	.30**
OCB			
Model 2			
Supervisor Support	.14**	.05	.17**
Model 3			
Supervisor Support	-.03	.05	-.04
Engagement	.40**	.06	.42**

N=299 **p* < .05, ***p* < .01

Conclusion. Overall, the results support the hypotheses in *Study 2*. When I correlated the variables, I found support that individual differences and job characteristics predict creative performance, task performance, and OCB. However, when I looked at the multiple regressions, I did not find support for every hypothesis. Specifically, for the individual difference variables, conscientiousness was not a significant predictor of creative performance, extraversion was not a significant predictor of task performance, and extraversion and conscientiousness were not significant predictors of OCB. For the job characteristics, I found that feedback did not significantly predict creative performance, autonomy and feedback did not significantly predict task performance, and neither supervisor support nor feedback significantly predicted OCB. Beyond these direct relationships, I did find that engagement mediates the relationship between all the individual differences and performance, and between all the job characteristics and performance. I summarize the findings in *Study 2* in the tables below.

Table 26. Study 2 Hypotheses (Direct Relationships)

Hypothesis	Supported?
Hypothesis 3: Extraversion will be positively related to creative performance	Supported
Hypothesis 4: Conscientiousness will be positively related to creative performance	Partially Supported
Hypothesis 5: Extraversion will be positively related to task performance	Partially Supported
Hypothesis 6: Conscientiousness will be positively related to task performance	Supported
Hypothesis 7: Extraversion will be positively related to OCB	Partially Supported
Hypothesis 8: Conscientiousness will be positively related to OCB	Partially Supported
Hypothesis 9: Proactive personality will be positively related to creative performance	Supported
Hypothesis 10: Proactive personality will be positively related to task performance	Supported
Hypothesis 11: Proactive personality will be positively related to OCB	Supported
Hypothesis 12: Self-efficacy will be positively related to creative performance	Supported
Hypothesis 13: Self-efficacy will be positively related to task performance	Supported
Hypothesis 14: Self-efficacy will be positively related to OCB	Supported
Hypothesis 15: Autonomy will be positively related to creative performance	Supported
Hypothesis 16: Autonomy will be positively related to task performance	Partially Supported
Hypothesis 17: Autonomy will be positively related to OCB	Supported
Hypothesis 18: Feedback will be positively related to creative performance	Partially Supported
Hypothesis 19: Feedback will be positively related to task performance	Partially Supported
Hypothesis 20: Feedback will be positively related to OCB	Partially Supported
Hypothesis 21: Supervisor support will be positively related to creative performance	Supported

Hypothesis 22: Supervisor support will be positively related to task performance	Supported
Hypothesis 23: Supervisor support will be positively related to OCB	Partially Supported
Hypothesis 24: Engagement will be positively related to creative performance	Supported
Hypothesis 25: Engagement will be positively related to task performance	Supported
Hypothesis 26: Engagement will be positively related to OCB	Supported

Table 27. Study 2 Hypotheses (Mediation)

Hypothesis	Supported?
Hypothesis 27: Engagement will mediate the relationship between extraversion and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 28: Engagement will mediate the relationship between conscientiousness and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 29: Engagement will mediate the relationship between proactive personality and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 30: Engagement will mediate the relationship between self-efficacy and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 31: Engagement will mediate the relationship between autonomy and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 32: Engagement will mediate the relationship between feedback and (a) creative performance, (b) task performance, and (c) OCB	Supported
Hypothesis 33: Engagement will mediate the relationship between supervisor support and (a) creative performance, (b) task performance, and (c) OCB	Supported

CHAPTER V: DISCUSSION

Overall, the findings in this dissertation support the proposition that creative performance is a separate stand-alone dimension of job performance. Through two separate but related studies on creative performance in organizations, I found that creative performance is positively related to other performance criteria (i.e. task performance and OCB) and that creative performance shares common antecedents and process mechanisms with other performance criteria. The main finding in this dissertation is that creative performance should no longer be neglected in organizations and instead should be included in current models of job performance.

Each of the studies in this dissertation has their own unique contributions to the overall proposition of this dissertation. Below I discuss the overall findings of each study, the limitations of each study, the overall implications of this dissertation, and finally suggest future research directions

Study 1

Study 1 was a meta-analytic cumulation of the research that includes creative performance and task performance and also includes creative performance and OCB. The purpose of the study was to examine if creative performance shares a positive relationship with other important job performance criteria and to determine whether or not creative performance was a separate stand-alone dimension of job performance criteria. This study also had several research questions pertaining to potential moderators, which included: rater source, study location, sample age, sample tenure, sample gender, and direction of the OCB (at the individual or organization).

Concerning the reliability piece of *Study 1*, I found that for all three criteria (creative performance, task performance, and OCB), supervisor raters had the highest mean weighted alpha reliabilities. I also found that for all three criteria, the mean weighted alpha reliabilities were lowest for peer raters. Creative performance displayed the highest mean weighted alpha reliabilities of the three criteria. Task performance had the second highest mean weighted alpha reliabilities, and OCB had the lowest mean weighted alpha reliabilities.

In order to account for scale length in the reliability estimates, I used the Spearman-Brown formula to estimate the reliabilities as if all scales were on the same length (10 items) as the scales varied in their average number of items (creative performance = 8.24, task performance = 5.10, and OCB = 5.71). When I applied the Spearman-Brown formula, creative performance again displayed the highest alpha reliabilities of the three criteria. It is important to note that alpha captures dimensionality. It could be that creative performance has the highest alpha reliabilities because it is the most one-dimensional of the three criteria. Task performance and OCB are more multi-dimensional constructs that are more diverse.

Overall, *Study 1*'s hypotheses and research questions had interesting findings. First of all, creative performance shared a positive relationship with task performance (when corrected for unreliability in both criterion, $\rho = .51$). The relationship is a medium-to-large effect size according to Cohen's rules of thumb (1992). The 80% credibility interval ranged from .35 to .67, implying that multiple population correlations underlie this effect. I also found that only 15.32% of the variance was accounted for by statistical

artifacts, suggesting the presence of moderators. I discuss the moderator findings in a later section.

Creative performance and OCB also had a medium-to-large effect size of $\rho = .49$. The 80% credibility interval also had a large range (.27 to .71), which suggests that multiple population correlations might be underlying this effect. Similar to the findings in the creative performance-task performance meta-analysis, only a small amount of variance (11.85%) was accounted for by statistical artifacts, which suggests the presence of moderators. Overall, in *Study 1*, I found support for Hypothesis 1a and 1b, as creative performance has a medium-to-large correlation with both task performance and OCB. These findings suggest that creative performance is positively related to both task performance and creative performance.

Hypothesis 2 predicted that creative performance would be a separate stand-alone dimension of job performance, that is, the correlation between creative performance and task performance and the correlation between creative performance and OCB should not be approaching 1.00. This finding can determine that creative performance is in fact distinct and is not just providing us with redundant information. It is important to establish that creative performance is a separate stand-alone dimension of performance because if it is a distinct dimension then it effects so many different areas of industrial/organizational psychology including models of performance, selection, and performance appraisal. As described above, while creative performance had a medium-to-large correlation with the other performance criteria, the effect size was not approaching 1.00, therefore providing support for Hypothesis 2. However, because I was unable to correct for inter-rater reliability due to a lack of data, the actual correlation may

be higher if it were corrected for inter-rater reliability. If I were able to correct for inter-rater reliability, the correlations may be larger and possibly not different significantly different from 1.0.

As mentioned above, in both the creative performance-task performance and creative performance-OCB meta-analyses, only a small amount of variance in each meta-analysis was accounted for by statistical artifacts. I had some research questions pertaining to potential moderators that may influence the creative performance-task performance and creative performance-OCB relationships. Accompanying moderator analyses were performed which yielded some interesting findings pertaining to these moderators.

Study 1 found that rater source was a moderator, such that in the creative performance-task performance relationship and in the creative performance-OCB relationship, the relationship differed when comparing self-ratings to other-ratings. For both relationships, the correlation was larger for other-ratings than for self-ratings. I also found that study location was a moderator. The correlation between creative performance and task performance was significantly lower in Europe than in the United States. For the creative performance-OCB relationship, the correlation was significantly larger in the US as compared to Europe. The reason for this could be that the US and its culture places a larger emphasis on creative performance, which explains why creative performance has a stronger relationship with the other performance dimensions in the US. Creative performance could be seen as a part of performance if it is emphasized more, resulting in a stronger correlation between dimensions. However, I did not find evidence of moderation for age, tenure, or gender, and that the relationship between creative

performance and OCB did not differ whether the OCB was directed at the individual or the organization (OCB-I and OCB-O).

Although no specific research questions surround this topic, I also had an interesting finding concerning scales used in the organizational creative performance literature. As this is a newer area of research in organizations, these findings may help inform future researchers. Mostly, a few of the same scales for creative performance were used in the studies, including Janssen (2000), Scott and Bruce (1994), and Oldham and Cummings (1996). However, the most popular scale was Zhou and George (2001) as it was used in the most studies in the meta-analyses as the creative performance criterion measure. This is interesting because it seems as if the literature is at least somewhat in agreement over how they conceptualize creative performance and what measures they believe capture this conceptualization best. As stated before, creative performance also exhibited the largest reliabilities, even after I used the Spearman-Brown formula to account for scale length.

Study 2

Study 2 also yielded positive findings. I found that extraversion, conscientiousness, proactive personality, and self-efficacy were all positively related to creative performance, as they were positively related to task performance and OCB when I examined the correlations between the study variables. The job characteristics (autonomy, feedback, and supervisor support) were also positively related to the three job performance dimensions when I examined the correlations.

I did however find some differences in the findings when I analyzed the data using multiple regression. Specifically, conscientiousness and feedback were not

significant predictors of creative performance. I also found that extraversion, autonomy, and feedback did not significantly predict task performance. For OCB, I found that extraversion, conscientiousness, supervisor support, and feedback were not significant predictors. However, proactive personality and self-efficacy were significant predictors of all three performance criteria in both the correlation and regression analyses. Below I expand on these findings by exploring past research on each of the criteria.

The relationship between conscientiousness and creative performance has had mixed findings in the past; however, the correlation in *Study 2* was still positive, rather than negative as other studies have found. This finding provides some support for the idea that the relationship between conscientiousness and creative performance at work is positive. Future research should explore this relationship.

It was surprising that in the regression analysis, feedback did predict creative performance, as much theory suggests that there should be a positive relationship. However, some studies have found that this relationship can vary, as Slijkhuis et al. (2013) found that informational evaluations were related to creative performance, but only in individuals who were low in personal need for structure.

Extraversion, autonomy, and feedback were all not significant predictors in the multiple regression analyses. Most research on extraversion and task performance has posited a significant relationship between extraversion and jobs that require social skills (i.e. managers or sales). It is possible that there was not a significant relationship between extraversion and task performance because the sample included individuals in an assortment of careers, and not just managerial or sales positions. Autonomy and feedback are usually job characteristics that predict task performance, however, most theory on this

emphasizes that these job characteristics result in better performance through motivation. This is evident in *Study 2* in the mediation analyses where engagement, a motivating variable, mediated the relationship between these job characteristics and task performance.

Finally, conscientiousness, extraversion, feedback, and supervisor support were not significant predictors of OCB in the multiple regression analyses. Past meta-analyses have not found a large correlation between extraversion and OCB (.11). However, conscientiousness is the strongest Big Five predictor of OCB, so it was surprising that in the multiple regression analyses conscientiousness was not a significant predictor of OCB. Feedback was also not a significant predictor of OCB, contrary to theory that suggests that feedback increases positive affect which leads to employees engaging in OCB. Little research has been done on supervisor support and OCB, however, research suggests that support leads to satisfaction, which leads to OCB (Chen & Chiu, 2008). Again in the mediation analyses, there was support for engagement mediating the relationships between job characteristics and OCB. This is logical, as past theory and findings suggest that there is a mediating variable (positive affect or satisfaction) that influences how these job characteristics lead to OCB.

These findings are important because they show that creative performance shares some of the same antecedents that predict both task performance and OCB. These results support including creative performance in other models of job performance as antecedents can predict the performance criteria similarly. Another point to consider here is that I found support for all the mediation hypotheses, which suggests that although the

individual differences and job characteristics may not always lead to better performance, they can lead to better performance through engagement.

Engagement was a significant predictor of all the performance criteria in both the correlation and regression analyses. Engagement was hypothesized to be the process through which these antecedents can predict performance. I found support for hypotheses surrounding engagement as a mediator between these individual differences/job characteristics and the three performance criteria, as hypothesized in the models depicted in Figures 1 and 2. Research on mediators gives us important insight into why or how our predictors of performance lead to performance. It gives us a process through which the prediction occurs. A positive finding in *Study 2* is that engagement served as a mediator between the individual difference and job characteristic predictors and all three of the performance criteria. This finding helps to expand our current knowledge of process models of job performance.

Limitations

Study 1. Although the findings in *Study 1* yielded very interesting findings, some limitations should be noted. There were a low number of studies in the creative performance-OCB meta-analysis. While overall I found a fairly strong correlation, I was unfortunately limited by the small amount of research (14 samples) that included both creative performance and OCB as criteria. Hopefully in the future, more studies will include both criteria (such as *Study 2*), as creative performance becomes a more relevant criterion in organizations, as it is demonstrated to be in this dissertation. Another point to consider is related to Hypothesis 2, which predicted that creative performance would be a distinct performance dimension. The meta-analysis provided support for this finding;

however, the observed relationship may actually be an underestimation because the same rater rated both performance criteria. The true relationships may actually be inflated due to halo error.

Study 2. *Study 2* is also not without limitations. The data was cross-sectional and based on self-reports. Because of this, there may be some issues with common method variance. Spector (1987) explains that method variance is an artifact of measurement that may bias results if all the ratings are collected in the same way. In *Study 2*, response bias or another factor in the participants can partially account for shared variance among the study variables.

To minimize concerns about common method variance I performed some additional analyses to make sure that common method variance was not greatly influencing *Study 2*'s results. To estimate the extent to which common method variance may have influenced the relationships in this study, I used the method described by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) that involves estimating the effect of an unmeasured latent method factor across items. Specifically, I returned to the CFA models described in the beginning of *Study 2*'s results section and added to them a method factor that accounted for the covariance among all indicators included in the model that was uncorrelated with the substantive factors. Note that for my model, involving engagement facets and performance dimensions, in these cases a theoretical general factor exists (e.g., Viswesvaran, Schmidt, & Ones, 2005) that could account for covariance among the indicators and this method was not appropriate for these CFA models (Hoffman, Lance, Bynum, & Gentry, 2010; Scullen, Mount, & Goff, 2000). Therefore, I incorporated the method factor into the following two CFA models: (1)

individual differences and (2) job characteristics. For the individual differences model the method factor accounted for 18% of the variance, and in the job characteristics model the method factor accounted for 6% of the variance. Thus, while common method variance may have somewhat inflated the correlation among variables in my study, the effect was small.

Implications

As researchers have stated, there is room for creativity in most, if not all, jobs (Shalley, 2008). For practitioners, creative performance can be a part of performance evaluations, used for selection, and can be a part of training and development initiatives. Further, the findings of this dissertation can also aid in many research efforts on creative performance. First of all, this dissertation found that creative performance is a stand-alone dimension of performance, and is positively related to other favorable performance criteria, so researchers have support that creative performance is worthy of further investigation. Beyond this, the results of *Study 2* suggest that creative performance shares similar antecedents to other performance criteria and therefore we can use this information to apply models of performance (task or OCB) to creative performance as well. In this vein, parallel research can help to inform each other on antecedents and models of job performance.

Future Directions

This dissertation has several findings that can influence future research projects. Overall, the findings in this dissertation help creativity researchers in establishing the value in studying creative performance in organizations. However, some specific directions of future research are listed below.

Study 1 meta-analyzed the relationship between creative performance and task performance/OCB. There are several different criteria that future research should look at with creative performance. Counterproductive work behavior is another stand-alone dimension of job performance that may have an interesting relationship with creative performance and according to theory this relationship could be positive or negative. Creative performance is a positive contribution to organizations, and its relationship with task performance and OCB established in the current dissertation affirms that it is a positive job performance criterion. It is likely that creative performance and counterproductive work behavior (CWB) are negatively related due to the positive relationship that creative performance has with task performance and OCB. However, some research on the dark side of creativity suggests that creative individuals are more likely to lie (Gino & Ariely, 2011), which may result in more CWB. Creative individuals may also be more “creative” in their approaches to sabotage and theft, and therefore less likely to get caught than other individuals. Because of this, creative performance may also be positively related to CWB. Only future research on the subject can uncover what the true relationship may be. Beyond CWB, there are also several different job performance criteria that creative performance should be linked with such as adaptability, leadership, and turnover. Because creative performance conceptualized as a criterion in organizations is still in its early stages as far as research is concerned, it may be some time before enough studies are available in this topic area to be included in a meta-analysis.

The model tested in *Study 2* was based off Bakker and Lieter’s (2010) model of engagement; however it did not include the entire proposed model. Bakker and Leiter’s

(2010) model was comprised of some of the same but some different antecedents divided into job resources (i.e. autonomy, performance feedback, social support, and supervisory coaching) and personal resources (i.e. optimism, self-efficacy, resilience, and hope). The model also included job demands (work pressure, emotional demands, mental demands, and physical demands) a moderator between job resources/personal resources and engagement. Further, their model also included financial turnover as an outcome alongside task performance, OCB, and creative performance. Even though *Study 2*'s model differed somewhat from Bakker and Lieter, the findings in the current study found some initial support for their proposed model. Future research should test Bakker and Lieter's model in its entirety. Another model that future research can test is the same model included in *Study 2* but with burnout as the mediator, instead of engagement, as these two constructs are opposites (Schaufeli et al., 2002). Testing *Study 2*'s model as a model of burnout can prove to be a fruitful endeavor as researchers uncover more about both engagement and burnout.

Next, there are other antecedents of creative performance in organizations that should be looked at in future research. Although there was not a specific hypothesis on openness to experience in this dissertation, there was a positive relationship between the variable and creative performance, which was not surprising as a lot of past research has also found a positive relationship between openness to experience and creativity (Batey et al., 2010; Wolfradt & Pretz, 2001). Future research can look at the facets of openness to experience as predictors of creative performance. Further, although research indicates that the Big Five account for a range of behaviors in organizations (Harari, Rudolph, & Laginess, in press; Ones, Dilchert, Viswesvaran, & Judge, 2007), there are also several

different personality variables that can be examined beyond the Big Five, such as curiosity or sensation seeking. Beyond individual differences, there are more job characteristics that can influence creative performance as work such as task identity or leadership variables. Engagement, as measured by the U-WES positively predicted creative performance, but there are also different models and measures of engagement that can be looked at (e.g., Shuck & Herd, 2012; Shuck & Reio, 2011). If engagement really is related to performance in organizations, then all measures of engagement should lead to better performance.

Although the literature suggests that creative performance is possible in all jobs, some industries require more creative performance, so the emphasis of creative performance in those industries can differ. There are also jobs where creativity must be changed some. For instance, nurses sometimes need to veer off the protocol or think outside the box to save someone's life, however, this creativity cannot compromise the safety of the patient. More research can look at creative performance in specific industries.

Finally, although creative performance has been established as theoretically distinct from other dimensions of job performance, it has not been determined to be empirically distinct. It makes sense as to why it is theoretically distinct from other performance dimensions, as it is performance that is defined as novel-original and useful-adaptive (Feist, 1998). So while it sounds theoretically distinct, there are many reasons why it may not be empirically distinct (i.e. general factor or job performance, or halo). More future research should try to address how creative performance can be empirically distinct.

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*Included in meta-analysis

Five Factor Model (IPIP)

Extraversion

Feel comfortable around people.
Make friends easily.
Am skilled in handling social situations.
Am the life of the party.
Know how to captivate people.
Have little to say.
Keep in the background.
Would describe my experiences as somewhat dull.
Don't like to draw attention to myself.
Don't talk a lot.

Conscientiousness

Am always prepared.
Pay attention to details.
Get chores done right away.
Carry out my plans.
Make plans and stick to them.
Waste my time.
Find it difficult to get down to work.
Do just enough work to get by.
Don't see things through.
Shirk my duties.

Emotional Stability

Often feel blue.
Dislike myself.
Am often down in the dumps.
Have frequent mood swings.
Panic easily.
Rarely get irritated.
Seldom feel blue.
Feel comfortable with myself.
Am not easily bothered by things.
Am very pleased with myself.

Openness to Experience

Believe in the importance of art.
Have a vivid imagination.
Tend to vote for liberal political candidates.
Carry the conversation to a higher level.
Enjoy hearing new ideas.
Am not interested in abstract ideas.
Do not like art.
Avoid philosophical discussions.
Do not enjoy going to art museums.
Tend to vote for conservative political candidates.

Agreeableness

Have a good word for everyone.
Believe that others have good intentions.
Respect others.
Accept people as they are.
Make people feel at ease.
Have a sharp tongue.
Cut others to pieces.
Suspect hidden motives in others.
Get back at others.
Insult people.

Proactive Personality: Seibert et al.'s 10-item version of Bateman & Cant (1993)

I am constantly on the lookout for new ways to improve my life
Wherever I have been, I have been a powerful force for constructive change
Nothing is more exciting than seeing my ideas turn into reality
If I see something I don't like, I fix it
No matter what the odds, if I believe in something I will make it happen
I love being a champion for my ideas, even against others' opposition
I excel at identifying opportunities
I am always looking for better ways to do things
If I believe in an idea, no obstacle will prevent me from making it happen
I can spot a good opportunity long before others can

Self-efficacy (Schwarzer & Jerusalem, 1995)

I can always manage to solve difficult problems if I try hard enough
If someone opposes me, I can find the means and ways to get what I want
It is easy for me to stick to my aims and accomplish my goals
I am confident that I could deal efficiently with unexpected events
Thanks to my resourcefulness, I know how to handle unforeseen situations
I can solve most problems if I invest the necessary effort
I can remain calm when facing difficulties because I can rely on my coping abilities
When I am confronted with a problem, I can usually find several solutions
If I am in trouble, I can usually think of a solution
I can usually handle whatever comes my way

Autonomy (Breugh, 1985)

Work Method Autonomy

I am allowed to decide how to go about getting my job done (the methods to use)
I am able to choose the way to go about my job (the procedures to utilize)
I am free to choose the method(s) to use in carrying out my work

Work Scheduling Autonomy

I have control over the scheduling of my work
I have some control over the sequencing of my work activities (when I do what)
My job is such that I can decide when to do particular work activities

Work Criteria Autonomy

My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others
I am able to modify what my job objectives are (what I am supposed to accomplish)
I have some control over what I am supposed to accomplish (what my supervisor sees as my job objectives)

Supervisor Support (Oldham & Cummings, 1996)

My supervisor helps me solve work-related problems
My supervisor encourages me to develop new skills
My supervisor keeps me informed about how employees think and feel about things
My supervisor encourages employees to participate in important decisions
MY supervisor praises good work
My supervisor encourages employees to speak up when they disagree with a decision
My supervisor refuses to explain his or her actions
My supervisor rewards me for good performance

Feedback (Zhou, 2003)

While giving me feedback, my supervisor focuses on helping me to learn and improve
My immediate supervisor *never* gives me developmental feedback
My supervisor provides me with useful information on how to improve my job performance

Engagement (Schaufeli et al., 2001)

Vigor

When I get up in the morning, I feel like going to work
At my work, I feel bursting with energy
At my work I always persevere, even when things do not go well
I can continue working for very long periods at a time
At my job, I am very resilient, mentally
At my job I feel strong and vigorous

Dedication

To me, my job is challenging
My job inspires me
I am enthusiastic about my job
I am proud of the work that I do
I find the work that I do full of meaning and purpose

Absorption

When I am working, I forget everything else around me
Time flies when I am working
I get carried away when I am working
It is difficult to detach myself from my job
I am immersed in my work
I feel happy when working intensely

Creative Performance (Zhou & George, 2001)

Suggests new ways to achieve goals or objectives
Comes up with new and practical ideas to improve performance
Searches out new technologies, processes, techniques, and/or product ideas
Suggests new ways to increase quality
Is a good source of creative ideas
Is not afraid to take risks
Promotes and champions ideas to others
Exhibits creativity on the job when given the opportunity to
Develops adequate plans and schedules for implementation of new ideas
Often has new and innovative ideas
Comes up with creative solutions to problems
Often has a fresh approach to problems
Suggests new ways of performing work tasks

Task Performance (adapted to self-rating from Van Dyne & LePine, 1998)

I fulfill the responsibilities specified in my job description
I perform the tasks that are expected as part of the job
I meet performance expectations
I adequately complete my *job* responsibilities

Organizational Citizenship Behavior Checklist (Fox & Spector, 2011)

Picked up meal for others at work

Took time to advise, coach, or mentor a co-worker.

Helped co-worker learn new skills or shared job knowledge.

Helped new employees get oriented to the job.

Lent a compassionate ear when someone had a work problem.

Lent a compassionate ear when someone had a personal problem.

Changed vacation schedule, work days, or shifts to accommodate co-worker's needs.

Offered suggestions to improve how work is done.

Offered suggestions for improving the work environment.

Finished something for co-worker who had to leave early.

Helped a less capable co-worker lift a heavy box or other object.

Helped a co-worker who had too much to do.

Volunteered for extra work assignments.

Took phone messages for absent or busy co-worker.

Said good things about your employer in front of others.

Gave up meal and other breaks to complete work.

Volunteered to help a co-worker deal with a difficult customer, vendor, or co-worker.

Went out of the way to give co-worker encouragement or express appreciation.

Decorated, straightened up, or otherwise beautified common work space.

Defended a co-worker who was being "put-down" or spoken ill of by other co-workers or supervisor.

VITA

ANGELA CHRISTIN REAVES

Born, Miami, Florida

M.S. Florida International University
Miami, FL

B.A. Florida International University
Miami, FL

PRESENTATIONS

Reaves, A. C., Drew, E. N., & Michel, J. S. (2013, May). *Work-to-school enrichment as a mediator of the creativity-school performance relationship*. Paper presented at the national conference for Work, Stress, and Health, Los Angeles, CA

Reaves, A. C., Drew, E. N., & Pace, V. L. (2013, April). *Revisiting the conscientiousness-creativity relationship*. Poster session presented at the national conference of the Society for Industrial Organizational Psychology, Houston, TX

Reaves, A.C., Sanderson, K. R., & Pace, V. L. (2013, April). *Further investigating the predictive validity of polychronicity*. Poster session presented at the national conference of the Society for Industrial Organizational Psychology, Houston, TX

Reaves, A. C. (2012, March). *The development of a social creativity situational judgment test*. Poster session presented at the national conference for Industrial-Organizational Organizational Behavior, Orlando, FL

Reaves, A. C. (2012, March). *The role of the environment in the individual difference and creativity relationship*. Paper presented at the national conference for Industrial-Organizational Organizational Behavior, Orlando, FL

Reaves, A. C., & Pace, V. L. (2011, August). *Creativity: Is it more about traits or states?* Poster session presented at the national conference of the American Psychological Association, Washington, D.C.

Drew, E., Reaves, A. C., Sanderson, K., & Pace, V. L. (2011, April). *Graduate school retention: Do we practice what we preach?* Poster session presented at the national conference of the Society for Industrial Organizational Psychology, Chicago, IL