

**ORGANIZATIONAL JUSTICE: A POTENTIAL FACILITATOR
OR BARRIER TO INDIVIDUAL CREATIVITY**

A Dissertation

by

ANEIKA L. SIMMONS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2006

Major Subject: Management

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Approved by:

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ABSTRACT

Organizational Justice: A Potential Facilitator or Barrier to

Individual Creativity. (December 2006)

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In an effort to obtain and sustain competitive advantage via creative performance, organizations often seek individuals who possess traits known to improve the likelihood for creativity. Literature suggests that contextual factors may influence the level of creative performance of individuals with creative potential. The influence of organizational justice, a prominent and pervasive environmental factor, on creative output has been largely ignored. I assert that organizational justice (i.e., distributive, procedural, and interactional) may not only moderate the relationship between creativity enhancing traits and creative performance, it may also have a main effect relationship with creative performance. Therefore, I investigate the relationship between variables found to be precursors to individual creativity, distributive justice, procedural justice, interactional justice, and creative performance in a laboratory setting utilizing undergraduate business students. Participants completed an in-basket exercise to help determine how justice issues may influence individuals with creative potential. The empirical evidence for the hypotheses is minimal. I found some support for a main effect relationship between procedural justice and individual creativity. The findings also

suggest that distributive justice moderates the relationship between openness to experience and individual creative performance. Thus, there is some evidence that justice factors may have a limited relationship with individual creative performance.

DEDICATION

This dissertation is dedicated to my loving husband, Anjuan, and my two precious sons, Koveil and Kyric. Your love and support have helped strengthen me through this process. I thank the Lord for such a beautiful thriving family. I continue to look forward to enjoying our lives together.

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CHAPTER I

INTRODUCTION

In order to effectively perform better than their competitors, many organizations make efforts to maximize their economic value by gaining and sustaining competitive advantage (Barney, 1997). Competitive advantage exists when a firm generates superior outcomes for its stakeholders and for itself (Porter, 1980). Organizations make various strides to accomplish this goal; a common avenue for reaching this objective (i.e., achieving competitive advantage) is via creative performance (Amabile, 1988). Creative performance is considered to be the production of novel and useful ideas (Amabile, 1988; Amabile, et al., 1996).

Creative performance is often thought to be a foundational requirement for organizational innovative endeavors and change efforts (Amabile, 1988; Woodman et al., 1993). Clearly, it is valuable and coveted within organizations, but research has shown that producing creative output is problematic; it is contingent upon both the individual differences of employees and contextual organizational factors (Woodman et al., 1993; Woodman, 1995). For example, research has indicated that individual difference factors like intrinsic motivation (e.g., Amabile, 1983; 1988), creative personality (e.g., Zhou & Oldham, 2001), openness to experience (e.g., George & Zhou, 2001), risk taking (e.g., Amabile, 1988; Ruscio et al., 1998), and self-efficacy (e.g., Bandura, 1997; Tierney & Farmer, 2002) are likely to positively influence an

This dissertation follows the style of the *Journal of Applied Psychology*.

individual's tendency to be creative. While contextual factors like evaluations (e.g., Shalley & Perry-Smith, 2001), social networks (e.g., Perry-Smith & Shalley, 2003), rewards (e.g., Amabile et al., 1986; Eisenberger & Armeli, 1997), and the actions of supervisors (e.g., Oldham & Cummings, 1996) have also been found to influence creative performance.

Upon inspection of the creativity literature, it seems one vital contextual factor has not been fully investigated: organizational justice. The importance of justice issues should not be minimized considering that, on the whole, people in North America often feel that distributions, procedures, and interactions should be just for all employees (Kilbourne et al., 1996). Organizational justice (or fairness) is related to the social norms and guidelines that regulate how rewards are distributed, how procedures are used to make distributions, and how employees are treated with regard to these decisions (Folger & Cropanzano, 1998). It is important to note that the fairness of decision making is associated with an employee's perception of fairness rather than an objective assessment of a situation that can be unquestionably interpreted as fair or unfair (Folger & Cropanzano, 1998).

Perceptions of recent organizational behavior like Wal-Mart's unfair compensation practices and Boeing's inequitable managerial practices have inspired current questions and debate related to justice issues (e.g., Simpson, 2005). For instance, some have reservations about whether enough safeguards are in place to ensure justice with regard to the complexities found in modern organizational functions (e.g., integrated financial and logistical systems, complex compensation packages).

Individuals also question whether or not there is comprehensive information available to determine the impact of justice on various types of performance when efforts to be fair fail (Trevino & Brown, 2004).

Debate has also surfaced regarding the thought that the line between just and unjust behavior has become increasingly blurred. Some believe that unfair decisions and behaviors are often masked as common acceptable business operations. For example, Wal-Mart offers bargain prices to its consumer by paying lower wages to its employees as compared to other similar organizations. Thus, they are able to better compete and increase profits because of their ability to reduce labor cost. However, their gains are thought to come at the expense of their employees. The individuals that work there often have to contend with lower wages and limited benefits (Simpson, 2005). How might fairness perceptions of these types of business practices impact the output (e.g., creative performance) of their employees?

Since individual creativity can not be produced in a vacuum and is susceptible to external factors, it is important to have a grasp of which contextual factors might interact with individual differences to impact creative output (Woodman & Schoenfeldt, 1989; Woodman et al., 1993). Given the increased focus on creative performance (an individual output) and continued interest in issues of justice (a contextual factor) in the workplace it is puzzling to discover that the relationship between the different facets of justice and creative performance has been largely ignored (Clark & James, 1999). Perceptions of fairness or unfairness have been shown to impact various organizational behaviors (e.g., organizational commitment, job satisfaction) (Colquitt et al., 2001), but

the relationship between justice (distributive, procedural, interactional) and creative performance (an individual output) is essentially unexplored.

Because research that investigates whether or not perceptions of justice or injustice have a positive or negative impact on creative performance is almost nonexistent, I will address this gap in the literature. Overall, I will assess whether or not an employee's perception of organizational injustice is a barrier to individual creativity and whether or not perceptions of organizational justice facilitate individual creativity. This investigation could prove to be relevant and interesting considering individual creativity is a precursor to sustained competitive advantage, which is paramount to an organization's continued success (Amabile, 1988; George & Zhou, 2002). Furthermore, this study aligns with the direction of creativity literature that continues to expand from investigations which focus solely on individual attributes to studies that also consider contextual factors that may interact with individual characteristics to impact individual creativity (e.g., Shalley, 1991; Tierney et al., 1999).

Research as well as anecdotal evidence suggests that organizations often look to certain types of individuals to produce creative output (i.e., those high in intrinsic motivation, creative personality, openness to experience, risk seeking, or self-efficacy) (Shalley et al., 2004; Zhou & Shalley, 2003). It would enhance this body of literature to determine how these traits that are central to creative output interact with organizational justice. Therefore, I would like to expand the investigation and determine whether or not organizational justice factors (i.e., distributive justice, procedural justice, and interactional justice) moderate the relationship between certain individual differences

(i.e., intrinsic motivation, creative personality, openness to experience, risk seeking, and self-efficacy) and creative performance. A conceptual model illustrating the components of this investigation is shown in Figure 1.

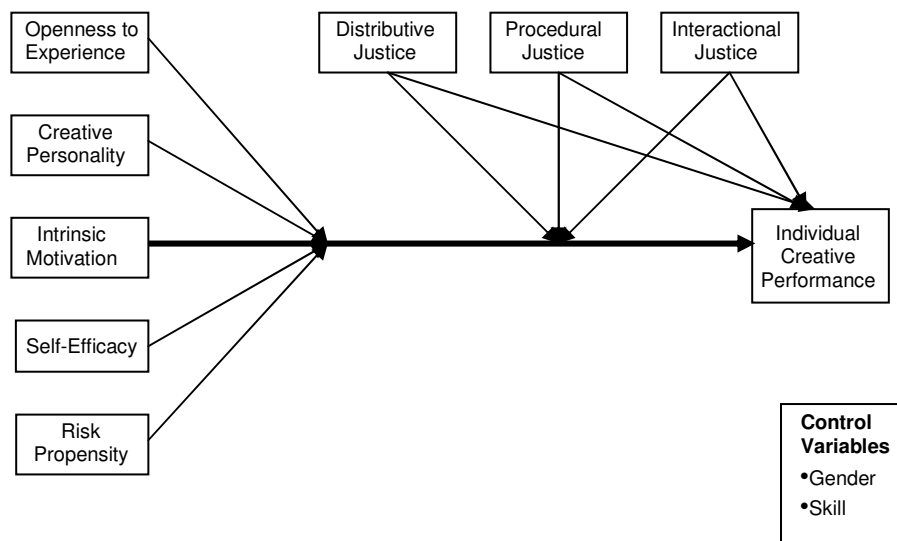


Figure 1. Conceptual model

Overview of Dissertation

The remaining portion of this dissertation will be arranged in the following manner. Chapter II reviews the literature relevant to creative performance and organizational justice and introduces the basis for examining the main effect of justice on creativity as well as discussing foundational reasons for how organizational justice may moderate the relationship between five individual differences (i.e., intrinsic motivation, creative personality, openness to experience, risk seeking, and self-efficacy) and creative performance. Chapter III introduces the theoretical framework that

concludes with a discussion about the hypotheses. Chapter IV describes the methodology that was utilized for the data collection, which included two pilot studies and a laboratory investigation. Chapter V presents the analysis utilized to test the hypotheses. This chapter also presents the results that emerged from this investigation. Finally, Chapter VI concludes with a discussion related to the overall findings of this study as well as an explanation of the practical implications, limitations, and future research.

CHAPTER II

LITERATURE REVIEW

The possible main effect of justice perceptions on creative performance provides a principal foundation for this investigation. Organizational justice will be reviewed by inspecting the three prominent facets of this gestalt construct: distributive, procedural, and interactional justice. To better understand the nature of the possible relationships several individual difference variables will be explored: intrinsic motivation, creative personality, openness to experience, risk seeking, and self-efficacy. These identified items surmise the constructs to be reviewed.

Creative Performance

Creative performance is the generation of products, procedures, or ideas that are considered to be original or novel and potentially useful (Amabile, 1988). The attributes of output that can be considered original and useful (i.e., creative performance) are generally thought to function on a continuum versus as dichotomous variables (Farr & Ford, 1990; Shalley et al., 2000). Thus, as originality and usefulness increase the output is considered more creative rather than an output being deemed creative or not creative. This definition focuses on outcomes or products versus the process of producing creative work, because it emphasizes the extent to which an outcome is judged as creative versus the intellectual process through which a creative outcome is produced (Amabile, 1988).

A principal model describes creativity as the intersection of three vital components: an individual's domain-relevant skills, creativity-relevant skills, and task motivation (Amabile, 1988). Domain relevant skills are essential skills that often result in expert performance in an area of knowledge. This component includes familiarity with details and specific skill sets of expertise in a particular domain. Creativity relevant skills enhance individual creativity because it affords varied perspectives to problems or challenges that are encountered. This skill set can also be observed across different domains while influencing various working styles that are likely to precede creative work. Task motivation is related to an individual's approach or attitude toward a given task (Amabile, 1983; 1988). Motivation is critical to creative work, in fact, Amabile states that it, "determines the extent to which domain relevant skills and creativity relevant skills will be fully and appropriately engaged in the service of creative performance" (1988, p. 133).

Creative performance is an individual level construct, so managers generally assess the work of a single employee to determine how much creative value they contribute. In a practical sense, creativity is related to thinking contrary to the conventional that results in uncommon contributory outputs for both the individual and the organization (Perry-Smith & Shalley, 2003). Thus, employees can individually produce novel and appropriate new ideas related to various processes, procedures, and products in different types of work settings and structures. As a result, the value of creativity can generally be observed in most areas of an organization (Amabile, 1996).

Although creativity can occur in several areas of an organization, it does not come about by chance; creativity takes place when the suitable circumstances are united (Amabile, 1988; Kurtzberg & Amabile, 2001). In fact, “creativity does not occur spontaneously or randomly, but happens instead when the appropriate combinations of knowledge, skill, and motivation enable an individual to create new ideas” (Kurtzberg & Amabile, 2001, p.286). One must also recognize that creativity is not only the result of individual level input, contextual factors interact to produce an environment that is conducive or harmful to creative output (Amabile, 1988; Csikszentmihalyi, 1988; Woodman et al., 1993). Moreover, there are two prominent models (i.e., one espoused by Amabile and the other by Woodman and colleagues) within the organizational behavior literature that address creativity and both discuss how aspects of the workplace could potentially enhance or restrict the level of creativity produced by employees (Amabile, 1983; 1988; Woodman et al., 1993).

Organizational Justice

Justice is an ancient construct that is engrained in the fabric of mankind. In fact, issues of justice have been alluded to in early documents produced by mankind, for example, the Bible and Hammurabi’s Code address issues of fairness (Folger & Cropanzano, 1998), yet it is not surprising that issues of justice remain current and prevalent. Evidence of its importance can be observed in the growing body of knowledge regarding notions of fairness in the workplace (Colquitt et al., 2001; Folger & Cropanzano, 1998).

Discussions initially focused on organizational justice as a summary construct (Folger & Cropanzano, 1998) and scholars then extended this work to include subsets of justice issues like distributive justice (related to outcomes such as pay) (Homans, 1961). Researchers then began to investigate circumstances that include procedural justice (typically related to formal company processes) (Thibaut & Walker, 1975) and interactional justice (related to interpersonal behavior) (Bies & Moag, 1986).

Research demonstrates that there are important relationships between organizational justice and work outcomes. Scholars have discovered the benefits of employees' positive perceptions of justice as well as the consequences of perceptions of injustice in the workplace (Cropanzano & Folger, 1991; Cropanzano & Greenberg, 1997; Folger & Cropanzano, 1998). For example, scholars have found that organizational justice is positively associated with outcome satisfaction, rule compliance, group commitment, and communal esteem (Colquitt et al., 2001; Folger & Cropanzano, 1998). Other scholars found that organizational injustice is positively related to feelings of anger, aggression, and counterproductive social behavior (Colquitt et al., 2001; Folger & Cropanzano, 1998; Skarlicki et al., 1999).

Although organizational justice results in varied outputs, outcomes can be observed that are distinct and specific to the primary subsets of organizational justice: distributive, procedural, and interactional justice (Folger & Cropanzano, 1998). The three aspects of justice are separately defined, but are typically related within the working environment (e.g., when an employee perceives procedural justice it is often

more difficult for that employee to question the outcomes related to distributive justice) (Colquitt, 2001; Tang & Sarsfield-Baldwin, 1996).

Distributive Justice

Distributive justice generally focuses on how employees assess outcomes they receive from their organization and this concept has been applied to a wide range of business concerns (Folger & Cropanzano, 1998). Regarding outcomes, fairness issues arise when employees assess their outputs (e.g., salary, benefits) and their inputs (e.g., experience, education) and compare them to a selected standard of fairness, which is often times a referent other (e.g., a co-worker, organizational peer), and determine that there is some degree of inequity or injustice. The assessments of distributive justice that employees make are not objective, but are based on perception. The explanation of this phenomenon is mostly based on the equity theory (Adams, 1965; Folger & Cropanzano, 1998).

On the whole, organizations make an effort to distribute resources fairly among their employees. There are three rules that are often utilized in an attempt to distribute outcomes effectively and fairly: equity rule, equality rule, and need rule. The equity rule suggests that resources ought to be distributed as compared to the employee's inputs (e.g., past performance, experience). The equality rule suggests that employees should receive the same or equal output. The need rule suggests that individuals should receive outputs based on need (Conlon et al., 2004; Leventhal, 1976).

To ensure a democratic view of fairness, U.S. based organizations generally utilize the equity rule. The equity rule is generally more palatable for employees in profit

making organizations because of varied levels of employee performance (Cobb et al., 1995a; Kilbourne et al., 1996; Leventhal, 1976). Because organizations seek to reward employees who provide value, employees expect that some co-workers (generating a high level of outcomes) may be better compensated, while other co-workers (producing a low level of outcomes) may be less compensated. Thus, employees generally find this method of reward distribution to be acceptable because it seems fair to reward individuals in relation to how much they contribute to the organization as compared to their peers (Cobb et al., 1995b; Leventhal, 1976).

Even though the equity rule is widely utilized and is generally perceived to be fair, employees may still vary in their perception of just and unjust practices. When employees perceive that resources have been distributed justly they tend to be more pleased with personal outcomes that result in increased satisfaction with their salary and their overall work experience (McFarlin & Sweeney, 1992). When some individuals perceive injustice, among other counterproductive behaviors, they may engage in thievery (Greenberg, 1990a) or may even have issues with the quality of their work (Cowherd & Levine, 1992).

Procedural Justice

The three subsets of justice share some commonality (e.g., employees make subjective judgments and the assessments made about one area of justice can influence judgments in the others); however, as mentioned, the three aspects of justice are different constructs (Folger & Cropanzano, 1998). In fact, procedural justice is both empirically and conceptually distinct from interactional justice and distributive justice (Colquitt,

2001; Folger & Cropanzano, 1998). Procedural justice is the fairness of the procedures used by a company in allocating and distributing rewards and the voice given to employees in the distribution process (Colquitt, 2001; Folger & Cropanzano, 1998).

Procedural fairness has substantial influence on people's attitudes and evaluations regarding the fairness of how distributive decisions are made (Lind & Tyler, 1988). For example, research has indicated that the perception of procedural unfairness can lead to dissatisfaction and an opposition to change efforts within organizations (Cobb et al., 1995b; Greenberg, 1990). Thus, if an employee perceives that procedures are fair (e.g., even when rewards do not meet expectations) they are less likely to exhibit counterproductive reactions; however, it is more likely that they will display counterproductive reactions when procedures are determined to be unfair (Folger & Cropanzano, 1998).

Employees also utilize perceptions of procedural justice to determine their worth within an organization (De Cremer et al., 2005; Lind & Tyler, 1988). For example, the group-value model asserts that people not only care about procedural fairness issues because they desire to maximize their organizational outcomes, but also because the procedures used to make decisions about them communicate how much the organization values them (Lind & Tyler, 1988; Tyler & Lind, 1992). In fact, within working relationships, the group-value model suggests that, "group members are concerned with neutral treatment of group members, trust in the leader, and social status in the group" (Trevino, 1992, p. 659).

Ensuring fairness in decision making often mandates that organizations take the basic values and norms of relevant groups of people into consideration to obtain a better idea of what is important and relevant to them in their working environment (Leventhal, 1980). Obtaining this information may help organizations implement procedures that are more likely to be perceived as fair. This can be a difficult task considering different groups within various organizations have varied outlooks and values (Blake & Mouton, 1984; Leventhal, 1980). However, there are six attributes that are commonly utilized to maintain or assess fair procedures (Leventhal, 1976; 1980). For a procedure to be considered fair it must a) be utilized consistently within the organization b) include bias suppression where managers use objective ways to make decisions c) utilize accurate information d) ensure that employees feel they have the opportunity to correct inaccurate assessments e) represent employees who are affected by the distributions, and f) be ethical in light of fundamental moral values. In addition to these attributes, the amount of voice afforded to employees is another way in which organizational behavior is assessed to determine whether or not employees encounter procedural justice (Colquitt et al., 2001; Folger & Cropanzano, 1998).

Procedural fairness is also considered to be critical to organizational members because it impacts their behavior and performance. For example, increased procedural justice may improve organizational commitment and subordinate evaluation of supervisors (McFarlin & Sweeney, 1992). In addition, when procedural fairness is absent there is a decrease in organizational citizenship behavior and an increase in incidences of turnover (Cropanzano & Greenberg, 1997; Folger & Cropanzano, 1998).

Interactional Justice

Interactional justice was previously discussed as an aspect of procedural justice, but it has emerged as an independent construct, which is thought to be distinct and meaningfully different (Bies & Moag, 1986; Colquitt, 2001; Folger & Cropanzano, 1998). The study of interactional justice focuses on how official agents of an organization interact with employees who are under their authority. This type of justice is thought to have two components: interpersonal sensitivity and appropriate information sharing (Colquitt, 2001; Folger & Cropanzano, 1998).

The interpersonal sensitivity component is associated with the quality of the interpersonal treatment an employee receives within an organization (Colquitt et al., 2001; Folger & Cropanzano, 1998; Folger & Konovsky, 1989). It is related to varied emotions that individuals feel toward agents or authority figures in response to their decision making within an organizational structure (Tyler, 1989). The information sharing component of interactional justice is related to how informative and thorough explanations are when procedural decisions are mandated and executed, it is also related to the justifications that are provided for why certain business decisions were made (Colquitt, 2001; Greenberg, 1990b).

Ordinarily, organizations make strides to display fair conduct, yet employees will consider some types of interpersonal treatment to be fair while perceiving other types of organizational behavior as unfair (Folger & Cropanzano, 1998). Interactional fairness is important because it impacts employee behavior, for example, it is thought to improve employee attitudes and conduct toward the person carrying out a particular treatment

(Bies & Moag, 1986; Colquitt et al., 2001). Furthermore, interpersonal justice has demonstrated a positive relationship with employee levels of trust and collective esteem of the group experiencing the treatment or interaction (Colquitt et al., 2001).

Precursors to Creative Performance: Individual Difference Constructs

This study also seeks to determine whether organizational justice moderates the relationship between constructs that have demonstrated a positive relationship with creative performance. The five variables that may have an interactional relationship with organizational justice are: intrinsic motivation, creative personality, openness to experience, risk seeking, and self-efficacy. Thus, this investigation examines the main effect relationships between justice dimensions and creative performance as well as the notion that organizational justice may strengthen or weaken the relationship between precursors to creativity and creative performance.

Intrinsic Motivation

One of the most frequently discussed antecedents with regard to creative performance is task motivation or intrinsic motivation, which is the individual's attitude toward a task and perceptions of their motivation with regard to work (Amabile, 1979; 1996; Oldham & Cummings, 1996). More specifically, it is defined as motivation that is the result of an individual's positive reaction or response to certain aspects of a task. The reaction can be experienced as interest, high level of involvement, or curiosity (Deci & Ryan, 1985; Amabile, 1996).

In addition, research posits that intrinsic motivation is the motivational state where an individual is interested in a task mainly for its own sake, instead of exclusively for the purpose of avoiding punishment or gaining a reward. Individuals who are intrinsically motivated generally perceive the process of completing a task as an end in itself, rather than as a means to an end (Deci & Ryan, 1985). With regard to the three-factor model presented by Amabile, if there is a high level of intrinsic motivation, creativity can be produced even when there is a lower level of domain or creativity-relevant skills. However, without intrinsic motivation, it is generally thought that individuals cannot be expected to produce creative work. Furthermore, motivation is thought to make the difference between what an individual can possibly produce and what one will actually generate (Amabile, 1988; 1996).

Creative Personality

Researchers suggest that creative personalities have several attributes. People with creative personalities are thought to display “independence, self-confidence, openness, impulsivity, hostility, and dominance” (Feist, 1998, p. 299). They are likely to have an open-mind toward uncertainty. They are also less likely to give up when they are developing original thoughts into applicable ideas. Scholars go on to say that these individuals have the ability to distinguish between different ideas and utilize those differences to create (Barron & Harrington, 1981; Martindale, 1989; Zhou & Oldham, 2001).

Literature also suggests that in the appropriate circumstances individuals with creative personalities tend to exhibit relatively high creativity (Feist, 1998; Zhou &

Oldham, 2001); therefore, it is likely that these individuals will play a contributory role to an organization's pursuit of creative performance. Scholars also generally agree that an individual's personality (e.g., openness to experience and creative personality) potentially interact with contextual factors to impact creative performance, providing a credible foundation for investigating whether or not this characteristic has a relationship with individual creativity that may be influenced by justice concerns (Amabile, 1996; James & Mazerolle, 2002; Martindale, 1989; Oldham & Cummings, 1996).

Openness to Experience

The Big Five personality model refers to mental processes that tend to be stable, determine individual's emotional responses, and influence behavioral adaptations to their environments. The five personality factors espoused in the popular and generally accepted personality model are: conscientiousness, emotional stability, agreeableness, extraversion, and openness to experience (James & Mazerolle, 2002). These factors are thought to be collections of established traits to which most people can be categorized.

“Openness to experience describes the extent to which individuals are imaginative, sensitive to aesthetics, curious, independent thinkers, and amenable to new ideas, experience, and unconventional perspectives; it distinguishes between those amenable to variety, novelty, and depth of experience and those who prefer the conventional, routine, and familiar” (George & Zhou, 2001, p. 514). Literature suggests that it is reasonable to believe that some personality factors play an important role in a person's creative behavior; in fact, openness to experience has been found to have a

positive relationship with individual creative performance (Feist, 1998; George & Zhou, 2001).

Risk Propensity

Producing novel or unusual work is often accompanied with uncertainty and literature has demonstrated that uncertainty has a relationship with risk (Brockhaus, 1980; Kahneman & Tversky, 1979). Uncertainty is often an indication that there will be a measure of risk; thereby, the more uncertain the outcome of the task the more risky. In general, employees realize that they risk failure when they choose to pursue an idea that diverts from the common way of functioning or when there is uncertainty about achieving a desired outcome (Zhou & George, 2003).

Due to the expressed sentiments of organizations (e.g., a desire for employees to think outside of the box), one might assume that organizations openly allow for risky behavior. It is puzzling to learn that many employees feel uneasy when they choose to take a risk in their work activities (Pranther, 2002). Organizations want employees to produce creative work in order to obtain competitive advantages, yet often they still desire to control their employees. Research has indicated that organizational efforts that restrain or control an individual's behavior are contrary to the production of creative work (Zhou & Shalley, 2003); thus, literature suggests that risk seekers (e.g., those willing to display unconventional behavior) are more creatively productive than risk averters when perceived obstacles (e.g., the possibility of failure) are encountered (Amabile, 1988; Shalley et al., 2004).

Self-Efficacy

Another antecedent that is thought to enhance creativity is self-efficacy (Bandura, 1997; Tierney & Farmer, 2002). Self-efficacy is not to be confused with self-esteem. Self efficacy and self-esteem are highly related, but they are thought to be conceptually and theoretically distinct (Brockner, 1988; Chen et al., 2001). Self-esteem is a generalized feeling defined as the, “overall affective evaluation of one’s own worth, value, or importance” (Blascovich & Tomaka, 1991, p. 115). While self-efficacy is defined as an assessment of a person’s ability, in a more limited arena, to accomplish a particular task or produce a certain level of performance (Bandura, 1977; 1986). Scholars have discovered that self-efficacy is positively related to the likelihood that an individual will produce creative work in their organization (Bandura, 1997; James et al., 2004; Tierney & Farmer, 2002).

Organizational Justice and Creative Performance

One aspect of an organizational context which may impact an individual’s perception of an establishment is different facets of its culture. Organizational culture is thought to reflect shared understandings and basic assumptions among organizational employees. Among other possible commonalities, it is thought to be the shared beliefs and values of organizational members (Martin, 1992; O’Reilly et al., 1991). Organizational culture often presents cues to organizational members as to what behaviors are acceptable or unacceptable within the work setting (Erdogan, 2002).

Organizational culture is considered to be the platform by which behavior norms are made visible (Erdogan, 2002); therefore, an organization's pattern of behavior may reflect their general values (e.g., adherence to fair or unfair norms). Even though it is an individual's perception, there is some support to assert that the type of environment that an employee perceives represents the context in which they work. For example, Mossholder and colleagues state, "indirect support for the concept of contextual procedural justice can be found in individual level procedural justice studies addressing context in terms of individual's perceptions of and reactions to procedural justice" (Mossholder et al., 1998, p. 133). Thus, for instance, it is reasonable to assert that employees make assessments of the organization's adherence to fairness norms by observing and analyzing aspects of a company's culture, their judgments may potentially function as an individual's perceived work environment.

Therefore, organizational culture (i.e., an aspect of one's work environment) should be addressed because it represents the framework by which fairness or unfairness is perceived (Erdogan, 2002; Mossholder et al., 1998). As a result of the perception of aspects of an organization's culture, employees may form negative perceptions of organizations that are perceived to have an unjust environment, while they may have a positive perception of an organizational environment that displays just behavior (Kilbourne et al., 1996). One could then assert that an unjust organizational environment or culture could be considered constraining or controlling. While perceptions of justice may enhance employee output if the environment is perceived to be informational (Deci & Ryan, 1980). Furthermore, studies have shown that employee perceptions of

organizational justice have an empirically supported relationship with performance (Folger & Cropanzano, 1998; Sweeney & McFarlin, 1993). Thus, the influence of perceptions of workplace justice, with regard to culture, is likely to extend to other types of performance, specifically creative performance.

Research suggests that different organizational contextual factors (e.g., organizational climates and organizational cultures) can have a relationship with creative output (Amabile, 1996; Amabile & Grysiewicz, 1989; Clark & James, 1999). In fact, research has demonstrated that individuals produce lower levels of creativity when they perceive their work environment as constraining and higher levels of creativity when they perceive it to be informational (Amabile, 1996; Kurtzberg & Amabile, 2001; Shalley et al., 2004). Therefore, it is likely that, for the most part, an employee's perception of organizational injustice may negatively influence creative performance, while an employee's perception of organizational adherence to a high level of justice may have a positive influence on creative performance.

Organizational Justice and Precursors to Creative Performance

Organizations often operate in a fast changing capricious atmosphere (Daft, 2005). To better manage volatility and achieve organizational success businesses must have a grasp of how different individuals are impacted by varied contextual circumstances. Individual performances may vary in response to different situations; this is especially true for individuals who have creative potential (James et al., 2004; Zhou & Shalley, 2003). Essentially, it is infeasible to assume that all employees with creative

potential will perceive organizational justice issues in the same way. Thus, it is plausible that individuals with different traits may have varied responses toward perceptions of justice or injustice (e.g., Colquitt et al., 2006).

In sum, this study investigates the relationship between creativity enhancing traits and creative performance as moderated by organizational justice issues. I seek to investigate how distributive, procedural, and interactional justice or injustice influence the impact of the independent variables (i.e., intrinsic motivation, creative personality, openness to experience, risk seeking, and self-efficacy) upon the dependent variable (i.e., creative performance). Therefore, the main effect relationship between creativity enhancing traits and creative performance should be enriched by perceived organizational justice.

Intrinsic Motivation, Organizational Justice, and Creative Performance

Research provides substantial evidence that intrinsic motivation is an antecedent that has demonstrated a positive relationship with creative performance (Amabile, 1988; 1996). The relationship between these two variables is considered to be fairly consistent (e.g., Amabile, 1983; 1988; Amabile & Gitomer, 1984) and may hold even when influenced by environmental variables (e.g., work evaluations) (Amabile et al., 1994; Ruscio et al., 1998). Intrinsic motivation is an essential component in efforts to be creatively productive (Amabile, 1983; 1988).

Motivation is thought to result from the combination of both individual factors and one's environment (Kanfer, 1990); consequently, there is an opportunity to address how contextual factors might influence the relationship between intrinsic motivation and

creative performance. Environmental factors are thought to be either informational or controlling; therefore, the relationship between individual's motivation and performance outcomes may be strengthened as individuals assess that their environment may deliver helpful developmental input (i.e., informational) about their work while the relationship between motivation and performance outcomes might be weakened if individuals believe they may encounter critical directive input (i.e., controlling) (Deci & Ryan, 1980; 1985). Thus, it would contribute to the literature to determine how the relationship between intrinsic motivation and creative performance will function when different levels of organizational justice (which could be considered as informative or controlling) are perceived.

Further support exists for why organizational justice and intrinsic motivation may interact to influence performance. Amabile states that individuals with a high level of motivation make intense efforts to acquire skills to enhance their output; this contributes to their heightened level of performance (1983; 1988). It is possible that the perception of the individual's environment may enhance or hinder these efforts (Amabile, 1988; 1997). For example, if an employee believes that the resources (e.g., training) to better develop their skill set are most often fairly allocated (which may also suggest that resources are available for skill enhancement) within the organization, their motivation to produce may increase. The more individuals perceive that resources will be fairly allocated (which may encourage employees because this may be an indication that the organization intends to properly equip employees) with regard to their work efforts; the more motivated they may be to creatively perform. Due to this association, it

seems possible that perceptions of organizational justice may strengthen or weaken the relationship between intrinsic motivation and creative performance.

Creative Personality, Organizational Justice, and Creative Performance

Literature suggest that the interaction between justice and personality variables are able to explain why outcomes may vary as different individuals perceive and respond to varied levels of justice (Colquitt et al., 2001; Colquitt et al., 2006). Because of the large number of known personality variables, it is important to determine which personality traits have the potential to contribute more explained variance with regard to performance outcomes (e.g., creative output) (Colquitt et al., 2006). Due to previous studies, it would seem important to investigate how both creative personality and the big five personality factor openness to experience interact with justice issues because of the positive relationship that they have demonstrated with creative performance (Shalley et al., 2004; Zhou & Shalley, 2003).

As stated, individuals with a creative personality are coveted in some organizations because they possess traits that are conducive to creative output (Zhou & Oldham, 2001). The relationship between creative personality and creative performance may be strengthened when employees identify themselves as creative, because how individuals view themselves is correlated with creative behavior (Farmer et al., 2003). Evidence suggests that individuals who are highly creative often have a high creative self-image (Baron & Harrington, 1981). However, the link between a creative person and their self-concept, with regard to creative performance, remains largely uncertain

(Dowd, 1989; Farmer et al., 2003); thus, contextual factors may influence this relationship.

Previous research provides support for the notion that aspects of an organizational environment (e.g., justice) may interact with a creative personality to impact creative performance (Shalley et al., 2004). Those with great creative potential (e.g., high creative personality) are thought to be sensitive to organizational treatment because of their need to protect their self concept. Some individuals obtain worth from how they are treated by their peers and the threat of negative input can damage their self perceptions. In fact, Farmer and colleagues state that, “normative expectations of important ‘social others’ are a major source of an individual’s self concept” (Farmer et al., 2003, p. 620). This phenomenon is important when creative performance is desired, because those with creative potential (e.g., high in creative personality) seem to have self concepts that are more susceptible to environmental factors that can influence their outputs. For example, in potentially hostile environments (e.g., environments where subordinates are spoken to negatively) these employees may shroud their creative side to protect their self image from possible criticism (Farmer et al., 2003). However, their creative personalities may be stimulated (resulting in more creative output) when they expect to encounter amiable and informational environmental factors (Fiest, 1998). Therefore, due to issues associated with self-concept and co-worker interactions, organizational justice and creative personality may interact to impact creative performance.

The group value model may also explain why creative personality may be influenced by justice issues. The theory suggests that as employees make efforts to maintain their status, they are sometimes unsure of their standing (which may also contribute to their self-concept) within an organization (Lind & Tyler, 1988). They may seek to determine how much they are respected; their assessment of how well they are regarded may influence (positively or negatively) the perception that they have of themselves as related to the organization. Thus, perceptions of justice are important because how an organization treats its employees often indicates how much the organization respects them and their contributions (De Cremer et al., 2005; Lind & Tyler, 1988). Since perceptions of injustice may damage the self-concept and assessment of organizational status, the relationship that has been observed between a creative personality and creative performance may be weakened. Conversely, perceptions of justice may enhance an individual's self concept and assessment of organizational status, which may strengthen the relationship between their creative personality and individual creativity.

Openness to Experience, Organizational Justice, and Creative Performance

Research has shown that openness to experience has a positive relationship with creative performance (George & Zhou, 2001; Zhou & Shalley, 2003). Investigating how openness to experience interacts with justice is vital because, "behavior is determined by a complex interplay of personal and situational variables such that personality alters the cognitive construction of an individual's environment and shapes the meaning of the various responses to that environment" (Colquitt et al., 2006, p. 111). Thus, individuals

who are high on openness to experience may perceive environmental factors differently than individuals who are not high on openness to experience and this may influence their behavior and outcomes. For example, it has been discovered that high openness to experience interacts with feedback to influence creativity (George & Zhou, 2001; James et al., 2004). When superiors show concern for the employee and provide helpful information about their work, creativity is enhanced (Deci et al., 1989; Shalley et al., 2004). Thus, for instance, interactional justice, which inherently involves factors associated with feedback (i.e., aspects of communication), may moderate the relationship between openness to experience and creative performance.

Individuals with different personality traits may perceive and respond to various social factors (e.g., organizational culture) in different ways (Clark & James, 1999; James, 1993). Thus, it is possible that perceptions of organizational justice (a contextual factor) may moderate the relationship between personality traits and creative performance. For instance, individuals who are high on openness to experience (an antecedent to creative performance) are curious and may have a greater awareness of issues (both positive and negative) related to the organizations culture (James & Mazerolle, 2002). This aspect of their personality may cause them to question (to a greater degree than those who are lower on openness to experience) the activities and norms of the organization.

As employees who are high in openness to experience make decisions in an organization based on previous encounters and observations, they may have an expectation about whether or not they will be treated with kindness or a lack of

sensitivity (depending on their perception of the culture). If they perceive that, in general, agents of the organization are kind and informative, they may view the environment as informational (which is known to increase creative performance) rather than controlling (Deci & Ryan, 1980; 1985). Thus, the perception of fairness may stimulate the aspects of their personality (e.g., imagination, unconventional ideas) that often result in increased creative output. Therefore, it is likely that high levels of openness to experience will interact with organizational justice to influence creative performance.

Risk Seeking, Organizational Justice, and Creative Performance

Certain perceptions of organizational culture may also impact employee risk seeking behavior. If a culture is perceived to display unjust behavior patterns, it may create an environment where people are willing to behave in unconventional ways. More specifically, individuals may often assume they will observe organizational fairness; if this is not the case, employees may react by behaving in an unconventional fashion or in a manner that is contrary to the norm (Greenberg, 1990c; Kilbourne et al., 1996).

Upon the occasion that individuals perceive that an organization has normalized unjust or unfair behavior they may take this as a cue that unconventional and nonconformist behaviors are acceptable and appropriate. Because of the perceived uncertainty in the environment, and the relationship between uncertainty and risk taking, this type of work environment (e.g., unjust environments) may inadvertently promote risk seeking behavior. Thus, due to varied perceptions of elements of an organizational

culture (e.g., fairness), organizational justice may moderate the relationship between risk seeking and creative performance.

Self-Efficacy, Organizational Justice, and Creative Performance

Self efficacy has been shown to have a positive relationship with creative performance and I assert that aspects of organizational justice may moderate this relationship. Studies have suggested that perceptions of fairness may have a relationship with an individual's belief in their capacity to perform (De Cremer et al., 2005; Koper et al., 1993; Tyler et al., 1996). It is likely that perceptions of justice may also influence an individual's belief in their capabilities with regard to their creative performance.

As stated, research demonstrates that procedural fairness may influence individuals in an organizational setting (Lind & Tyler, 1988). As the group value asserts, "fair procedures lead to positive feelings about oneself because they signify respect by the group or authority who enacts the procedure. In contrast, unfair procedures will lead to negative feelings about oneself for they indicate low regard by the group or authority figure" (Schroth & Shah, 2000, p. 463). Because of this reasoning, the positive relationship between self-efficacy and creative performance should be stronger when fairness is perceived because individuals may feel better about their capabilities and have more faith that their outcomes will be fairly assessed. This belief should enhance their self-efficacy and positively influence their relationship with creativity. Thus, employee characteristics (e.g., self efficacy) may potentially interact with certain perceptions of organizational culture (e.g., assessments of injustice or justice).

In addition, when individuals deem that resources will be fairly distributed, their self-efficacy may be enhanced as they look forward to the continued development of their domain relevant skills, as explained by Amabile's model (1988). Resources (e.g., computer based creativity training) that contribute to an individual's domain relevant skills improve the likelihood that they might produce creative work. Because individuals may believe that it is likely that they will be fairly equipped to perform, their self-efficacy should be enhanced. Being fairly equipped does not translate into being adequately equipped, but it might be an indication to the individual that the organization has intentions to sufficiently arm them with information and resources. Thus, the combination of high self-efficacy levels and fairness perceptions may jointly impact individual output (e.g., creative performance).

CHAPTER III

THEORETICAL FRAMEWORK

This paper extends the creativity literature by utilizing an interactionist approach initially espoused by Woodman and colleagues. Their paper provided a foundation for creativity literature such that macro and micro interest can be better integrated in empirical investigations (Woodman et al., 1993). This study extends knowledge in this area by examining how the combined effects of both personal and contextual factors might influence individual creative performance (Woodman et al., 1993; Zhou & Shalley, 2003).

In this investigation fairness perceptions are gathered at an individual level. As previously discussed, some assert that individual perceptions of environmental factors can be valid representations of contextual factors. There is implicit support for investigating context by utilizing individual's responses and perceptions of environmental fairness or unfairness (Mossholder et al., 1998). Thus, using the interactionist approach, I make an effort to uncover how an additional contextual factor (i.e., perception of organizational justice) might interact with characteristics that predispose employees to produce creative output.

Distributive Justice and Creative Performance

Organizations often make decisions that involve the distribution of resources; employees receive outputs based on these choices. As a result of organizational allocations, employees may or may not obtain supplies, equipment, training opportunities, promotions or even a salary increase (Folger & Cropanzano, 1998). As Amabile's creativity model asserts, there are three elements that impact individual creative output: domain-relevant skills, creativity-relevant skills, and task motivation (1983; 1988). If individuals feel that they will have to struggle to obtain the resources to develop their domain relevant skills, their creative potential could be impacted.

This phenomenon can be further explained by work related to contextual constraints. Contextual constraints have been defined as "features of a work environment that act as obstacles to performance by preventing employees from fully translating their ability into performance" (Klein & Kim, 1998, p. 88). Though an employee may have the ability and motivation to be successful, the perceived lack of materials may cause them to be distracted from their work and feel frustrated by their circumstance. The onset of negative emotions (e.g., frustration) may be compounded when employees perceive a deficit in their receipt of resources versus others (Baron, 1990; Folger & Cropanzano, 1998; Zohar, 1996). Besides the fact that they may lack the optimal level of materials for their work (which may be the case in an unfair environment), the distraction of outcomes as a result of distributive unfairness and the related emotions of frustration can potentially damage their motivation to produce creative output (e.g., individual creativity) (Amabile, 1979; Peters et al., 1985).

The equity theory, which is the theoretical foundation of distributive justice, is a motivational theory that focuses on workers' perceptions of the fairness of their work outcomes and inputs. The equity theory suggests that employees perceive their outcome-input ratio compared to that of a referent other. In doing so, they seek to have a balanced outcome-input ratio. The theory suggests that employees are motivated to maintain or restore equity. As mentioned, outcomes are what an employee receives from an organization and inputs are what an employee contributes to the job (Adams, 1965). According to the equity theory, an employee could experience overpayment inequity, underpayment inequity, or equity. However, experiencing underpayment is what often leads employees to withhold output (Adams, 1965). When individuals encounter perceived underpayment their motivation can be damaged, which may inhibit creativity because of its reliance on intrinsic motivation.

In sum, there are three prominent reasons why employee's perception of distributive injustice could impact creative performance. First, employees may believe that they are receiving unfair resources, which may negatively influence their ability to creatively perform. Secondly, the perception of distributive injustice may result in negative emotions, which could be counterproductive to creative performance. Thirdly, an individual who perceives distributive injustice may consciously withhold creative output in an effort to maintain or restore perceived equity. Therefore, I hypothesize the following:

Hypothesis 1: Perceptions of distributive justice are positively related to creative performance.

Procedural Justice and Creative Performance

The ever changing organizational environment necessitates constant modification to organizational procedures, policies, and allocation of resources as decisions are made to keep up with new missions, objectives, and priorities. In the midst of changing organizational procedures, procedural justice becomes more salient when outcome distributions are not perceived as fair and favorable (Folger & Cropanzano, 1998). The processes used to make decisions that impact employee outcomes are critical to an employee's perception of fairness (Colquitt, 2001). Unfair procedures could potentially negatively influence all three elements espoused by Amabile's model, but the motivation component could be the most severely impacted (Amabile, 1988; Brockner & Greenberg, 1990). An individual's encounter with procedural fairness or unfairness is also relevant because procedural justice speaks to how much they are valued by the organization (Lind & Tyler, 1988). If employees perceive procedural injustice, they may interpret that they are not appreciated and this could diminish their motivation to perform on work task.

Procedural justice generally functions as a process theory that involves work motivation which focuses on workers' perceptions of fairness regarding the procedures used to make decisions about the distribution of outcomes (Folger & Cropanzano, 1998). When unfairness is perceived employees experience unconstructive feelings and may have negative perceptions of the organization which could potentially impact their motivation (Baron, 1990; Folger & Cropanzano, 1998; Zohar, 1996). These factors (i.e., related to emotions) may inadvertently influence creative performance because negative

emotions may distract their motivation to creatively perform (Amabile, 1979). This is problematic because individuals cannot be expected to produce creative output without being intrinsically motivated (Amabile, 1988; Higgins et al., 1992; Isen et al., 1987).

Procedural justice is also associated with voice; this is related to employees feeling that their point of view is being heard (Thibaut & Walker, 1975). If organizations make a point to support voice with regard to policies and procedures as they encourage employees to produce creative output, they could potentially observe increased creative performance. For example, employers could afford support for creative work by providing employees with an opportunity to submit ideas and novel thoughts to a suggestion box (Zhou & Shalley, 2003). Regardless of the avenue afforded for employee input, employees who perceive that they have a voice may feel a sense of empowerment and motivation, which could enhance creativity (Amabile, 1996; Cobb et al., 1995b; Kurtzberg & Amabile, 2001). Therefore, I hypothesize the following:

Hypothesis 2: Perceptions of procedural justice are positively related to creative performance.

Interactional Justice and Creative Performance

Interactional justice is the most recent area of organizational justice to be explained; it deals with how fairly leaders implement change efforts, communicate organizational decisions and display compassion toward their subordinates (Folger & Cropanzano, 1998; Tyler & Bies, 1990). Managers frequently play a symbolic role in organizations because employees often personify an organization by equating the organization with

their supervisor. Thus, employees may assess the fairness of an organization by evaluating the treatment they receive from their manager or supervisor (Cobb, 1992; Covin & Kilmann, 1990; Tyler & Lind, 1992).

Employees frequently evaluate whether distributive choices are based on fair procedures; they also appraise whether or not managers are interpersonally sensitive, provide adequate information, and justify their decisions that impact them (Folger & Cropanzano, 1998). If these criteria are met employees more readily perceive interactions with organizational representatives as fair, whereas if managers do not display these behavior patterns, employees are more apt to deem the observed behavior as unfair (Folger & Cropanzano, 1998). As a result, employees may believe they are not being supported and thereby experience negative feelings that could be counterproductive to performance (Bies & Shapiro, 1987; Tyler & Bies, 1990).

Employee perceptions of justice are important because the literature indicates that positive supportive organizational relationships (e.g., those that are deemed as fair) enhance individual creativity (Clark & James, 1999; Talbot et al., 1992; Zeldman, 1980). Managerial behavior may also have an impact because recent studies have shown that supportive positive interpersonal interactions like informative feedback and encouragement positively impact creative performance (Amabile et al., 1996; Farmer et al., 2003; Madjar et al., 2002; Zhou & George, 2001). Thus, it is reasonable to assert that interactional justice may have a main effect on creative performance. Therefore I hypothesize the following:

Hypothesis 3: Perceptions of interactional justice are positively related to creative performance.

Distributive Justice, Intrinsic Motivation, and Creative Performance

The Cognitive Evaluation Theory provides a theoretical foundation for the relationship between intrinsic motivation and creative performance; it addresses the idea that contextual factors have an informational or controlling component that potentially influences employees (Deci & Ryan, 1980; 1985). This supports the notion that different contextual factors (e.g., issues related to fairness) may positively (i.e., informational conditions) or negatively (i.e., controlling conditions) influence an individual's intrinsic motivation; thereby, potentially impacting their creative performance.

In order for one to produce creative output, some level of intrinsic motivation must be present. As discussed, out of the three components of Amabile's creativity model (i.e., domain relevant skills, creativity relevant skills, task motivation), intrinsic motivation is often considered to be the most critical to producing creative performance (Amabile 1983; 1988). However, intrinsic motivation is not immune to environmental factors (e.g., distributive justice issues). In fact, motivation is thought to result from the combination of individual factors like talents, beliefs, knowledge, and capabilities while also factoring in an individual's surroundings (Kanfer, 1990). As previously discussed, distributive unfairness may function as a contextual constraint, which may be a detriment to an individual's motivation. The unfairness may serve as a distraction for the employee (Amabile, 1979) making it difficult for the individual to translate their ability

and decreasing motivation into the creative performance that they have the potential to produce (Klein & Kim, 1998; Peters et al., 1985).

In addition, one individual difference factor that may also relate to the joint influence of distributive justice and intrinsic motivation on employee creative performance is organizational commitment. Organizational commitment is considered to be the amount of allegiance and attachment that an employee demonstrates toward their employer (Allen & Meyer, 1996; Mathieu & Zajac, 1990). Both organizational commitment and intrinsic motivation have demonstrated a relationship with organizational justice and creativity (Clark & James, 1999; Folger & Cropanzano, 1998).

Scholars have discussed two general types of commitment: affective and continuance (Meyer & Allen, 1991). Continuance commitment has demonstrated a specific relationship with creative performance (Zhou & George, 2001) and is related to the notion that employees will stay at an organization while they are pleased with their outputs (e.g., salary, career opportunities, and benefits) (Meyer & Allen, 1991). As posited by equity theory, which is a motivational theory, employees will wish to have a balance between their inputs and outputs, or even better, have their outputs outweigh their inputs (Adams, 1965). If these employees achieve and maintain equity, it is likely that they will demonstrate commitment to the organization (Folger & Cropanzano, 1998).

Distributive justice may moderate the relationship between intrinsic motivation and creative performance because of employee commitment issues. As stated, continuance commitment is associated with employees remaining loyal to an

organization because of the outputs they receive; thus, those high on continuance commitment are likely to be focused on outputs received from an organization because rewards are a principal motivation for their work (Meyer & Allen, 1991). Their focus on outcomes may cause perceptions of distributive justice issues to be salient and the concentration on external factors could be a distraction that could decrease their intrinsic motivation (Amabile, 1979).

Individuals may also interpret distributive injustice to be a controlling factor that would hinder performance for fear that they would not be properly rewarded for their organizational contributions. For example, if they perceive that distributive outputs (i.e., distributive justice) will be favorable they may be more motivated to maintain their relationship with the organization (as they view the organizational relationship as profitable) and focus on improved performance, while the belief that allocations will be unjust may decrease motivation (due to distraction and feelings of frustration) and thereby performance. Thus, as perceptions of distributive justice increase the relationship between intrinsic motivation and creative performance strengthens, while perceptions of distributive injustice weakens the relationship between intrinsic motivation and creative performance. Thus, I hypothesize the following:

Hypothesis 4a: Perceptions of distributive justice moderate the relationship between intrinsic motivation and creative performance. Specifically, as perceptions of distributive justice increase the relationship between intrinsic motivation and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of distributive injustice decreases the

relationship between intrinsic motivation and creative performance resulting in lower levels of creative performance.

Procedural Justice, Intrinsic Motivation, and Creative Performance

Being creative can be intensely rewarding for those who are intrinsically motivated and it is possible that those who are high in intrinsic motivation may overlook some unattractive aspects of their environment and still be creatively productive (Deci & Ryan, 1980; Zhou & Shalley, 2003). However, some unappealing facets of a situation may be more salient than others and thereby, possibly more difficult to ignore. One relevant example is the process by which creative output is identified and assessed.

Identifying creative performance is often subjective. An organizational authority figure generally functions as a co-worker who deems an employee's output as creative or not creative (Zhou & Woodman, 2003). Creative output is not automatically identified, assessed, and implemented (Amabile, 1988; Woodman, 1995); therefore, those with creative potential may fare better in organizations with consistent (i.e., fair) procedures that creativity judges or assessors must follow. Those likely to be creative may be concerned that their creative output may not be identified in an organization with inconsistent (i.e., unfair) procedures. The belief that organizational procedures tend to be consistent and fair could enhance the motivation of employees; thereby, positively influence their creative work.

As mentioned, there are six elements that should be present for a procedure to be considered fair (Folger & Cropanzano, 1998). If employees feel that their work will not

be judged fair (e.g., by observing a breach in one or more of the six common elements of procedural fairness) with regard to procedures their intrinsic motivation may suffer. This circumstance may result in employees splitting their efforts between their work and organizational processes. They may still enjoy the process of being creative, but the perception of possible unfair procedures may draw attention away from the task to external factors. This is problematic because negative extrinsic factors are known to decrease creative performance (Amabile, 1979). The focus off the task being accomplished, which utilizes an individual's intrinsic motivation, toward an external factor (i.e., worrying about fair procedures) may negatively impact creative performance (Amabile, 1979; Eisenberger & Selbst, 1994). In fact, Amabile stated that when an individual is intrinsically motivated, it is more conducive to the production of creativity; whereas, individuals who are extrinsically motivated or distracted may encounter difficulty in their efforts to be creative (1979). Based on this argument I hypothesize the following:

Hypothesis 4b: Perceptions of procedural justice moderate the relationship between intrinsic motivation and creative performance. Specifically, as perceptions of procedural justice increase the relationship between intrinsic motivation and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of procedural injustice decreases the relationship between intrinsic motivation and creative performance resulting in lower levels of creative performance.

Interactional Justice, Intrinsic Motivation, and Creative Performance

Intrinsically motivated individuals should show deeper levels of involvement in problem-solving and idea generation than individuals who are less intrinsically motivated; therefore, when creative output is desired, protecting employee's motivational levels is vital (Amabile, 1983; 1988). One relevant factor that may influence a highly motivated individual's performance is the type of organizational communication they encounter. Thus, certain aspects of communication may have an important relationship with employee's creative performance (Zhou, 1998), which may be enhanced by other contextual factors (e.g., justice).

As mentioned, much of the work that addresses creative performance and motivation is based on the Cognitive Evaluation Theory (Deci & Ryan, 1980; 1985; Zhou & Shalley, 2003). This theory supports the notion that different contextual factors positively or negatively influence an individual's intrinsic motivation, thereby their creative performance. More specifically, different conditions (i.e., perceptions of interactional justice or injustice) result in two different types of influences: informational or controlling. Thus, a superior may communicate in a feedback style, which is defined as the way that feedback is given to an employee, which may encourage or hinder individual creativity (Zhou, 1998).

As discussed, interactional justice is related to how organizational agents impart information and how sensitive they are with regard to sharing information with employees (Bies & Moag, 1986; Folger & Cropanzano, 1998). Thus, interactional justice may interact with intrinsic motivation with regard to the type of communication (e.g.,

feedback) that employees encounter. As stated, feedback style can be either controlling or informational. Controlling feedback brings focus to external factors like outcomes or rules and is a detriment to creative performance. Informational feedback is considered to be less restraining and does not impose the superior's preferences on the subordinate, which may facilitate creative performance (Amabile, 1979; Zhou & Shalley, 2003). As employees perceive that communication will contain a positive or developmental message their motivation should increase, while the belief that it will be negative or critical should decrease their motivation to perform. Therefore, it is reasonable to assume that interactional justice and motivation may interact via aspects of communication (e.g., feedback) to impact creative performance. Thus, I hypothesize the following:

Hypothesis 4c: Perceptions of interactional justice moderate the relationship between intrinsic motivation and creative performance. Specifically, as perceptions of interactional justice increase the relationship between intrinsic motivation and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of interactional injustice decreases the relationship between intrinsic motivation and creative performance resulting in lower levels of creative performance.

Distributive Justice, Creative Personality, and Creative Performance

Employees with creative personalities can be a contributory asset to an organization that values creative output (Zhou & Oldham, 2001). As mentioned, efforts

should be made to shield individuals with creative personalities because they may be sensitive to external factors that possibly impact their identity like perceptions of distributive justice or injustice (Fiest, 1988; Martindale, 1989). Thus, ensuring that distributions are fair is important because the extent to which individuals perceive that they will be justly rewarded for their contribution may influence their future creative performance (Eisenberger & Selbst, 1994; Zhou & Shalley, 2003).

In addition, employees with creative personalities that do not perceive that they are receiving proper treatment (e.g., distributive justice) may encounter negative emotions, which could potentially decrease their efforts to perform (Higgins et al., 1992). Emotions are complex responses which are linked to preceding circumstances that may or may not impact future events (George, 2000). Research shows that emotions are more volatile for those with personalities that are thought to be more creative (Barron & Harrington, 1981; Martindale, 1989). This is particularly the case for those who have a high level of a creative personality, because their emotions can even cause them to display rebellious behavior (Fiest, 1998; Gough, 1979).

Because distributive injustice can induce negative emotions (e.g., anger, rage) individuals who are more likely to display volatile emotional behavior patterns should be shielded from the fear of unfair allocations (Folger & Cropanzano, 1998). If individuals who are high on a creative personality must focus on containing negative emotions they may not be able to engage in or capitalize on the elements of their personality (e.g., intelligence, ability to identify divergent information) that are positively related to individual creativity (Amabile, 1979; Martindale, 1989; Zhou & Oldham, 2001). Thus,

the distraction of negative emotions could potentially interact with an employee's creative personality, thereby decreasing creative performance. Based on this information I hypothesize the following:

Hypothesis 5a: Perceptions of distributive justice moderate the relationship between creative personality and creative performance. Specifically, as perceptions of distributive justice increase the relationship between creative personality and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of distributive injustice decreases the relationship between creative personality and creative performance resulting in lower levels of creative performance.

Procedural Justice, Creative Personality, and Creative Performance

Theoretically there are two popular approaches to fairness or justice that address procedural issues. First, the instrumental approach to fairness suggests that individuals are concerned about fairness issues to guard their own personal economic and monetary interests (e.g., Folger & Cropanzano, 1998). Second, the interpersonal approach suggests that individuals are concerned about justice issues because it provides information about whether or not they are valued by the group to which they belong. In fact, research has shown that in some circumstances, the treatment that employees receive influences their self-concept (Lind & Tyler, 1988; Tyler & Lind, 1992).

As mentioned, organizations should recognize the importance of an employee's self-concept because individuals with a creative personality are known to be sensitive to

issues concerning their identity. In fact, these individuals may look to environmental circumstances (i.e., assessments of organizational treatment) to validate their creative personality (Farmer et al., 2003; Martindale, 1989). Thus, a breach in expected social norms, like perceptions of procedural injustice, could provide information suggesting that they and their contributions are not valued (Lind & Tyler, 1988).

Therefore, if an employee with a creative personality perceives that they are experiencing procedural injustice their self-concept could be damaged and they may make efforts to protect their self image, which is linked to their creative work, from possible criticism (Farmer et al., 2003; Martindale, 1989). Procedural unfairness may indicate to them that the organization does not appreciate them and their contributions (Lind & Tyler, 1988). Because their self-concept is likely to be damaged by such management, it is likely that they will begin to withdraw their creative efforts to shield themselves from current or future unfair treatment (Farmer et al., 2003; Fiest, 1998; Martindale, 1989).

In a general, if the effort to be creative, for those who are high in creative personality, waned these individuals would not be reprimanded by superiors, because creativity is often considered to be an extra-role output (i.e., not required work) (Amabile, 1988). Thus, management should be consciously careful to not engage in activities that may indicate that they are prone to utilize unfair procedures. However, if procedural unfairness is perceived, it is likely that the organization would not reap the possible benefits of having an employee with a creative personality. Based on this information I hypothesize the following:

Hypothesis 5b: Perceptions of procedural justice moderate the relationship between creative personality and creative performance. Specifically, as perceptions of procedural justice increase the relationship between creative personality and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of procedural injustice decreases the relationship between creative personality and creative performance resulting in lower levels of creative performance.

Interactional Justice, Creative Personality, and Creative Performance

I believe that the association between creative personality and self concept makes organizational feedback (i.e., the manner in which feedback is given) an essential issue; therefore, organizational communication methods among employees are critical. The *how* and *what* with regard to organizational communication styles toward subordinates is associated with interactional justice, because interactional justice can only be observed via some form of communication (Folger & Cropanzano, 1998).

Interactional justice is related to the communication between co-workers and has the capability to influence employee behavior (Folger & Cropanzano, 1998). This may be particularly true for individuals who are thought to have a creative personality. Research supports the notion that justice and some individual factors may work together to influence individual output, possibly individual creativity (Clark & James, 1999; James, 1993). This supports the idea that creative personality, an individual characteristic, and organizational justice could interact to impact creative output.

As discussed, because an individual's self-concept is related to their creative personality, individuals who are high in creative personality may make efforts to protect their self-image from harm (Farmer et al., 2003; Fiest, 1998). Thus, individuals with creative personalities may be susceptible to comments; this is particularly true of messages that are perceived to be controlling. These individuals may also be sensitive to the style and content of communication that is delivered by their superiors (Fiest, 1998; Martindale, 1989). Although individuals with creative personalities are likely to be sensitive to behaviors that threaten their self-image, they are also thought to behave in ways that might be considered counter cultural (Fiest, 1998; Gough, 1979). For example, interactional injustice (e.g., withholding information) toward an employee with a creative personality could prove counterproductive, because individuals with a creative personality have the propensity to rebel (Fiest, 1998).

The perception that they will encounter interactional injustice may tease out this negative aspect of their personality (tendency to rebel), resulting in the possibility that they may begin to withhold creative output (which is often considered to be extra-role output) in retaliation. Thus, the interactional injustice could be perceived to be controlling (which is a detriment to creative work) (Zhou & Shalley, 2003). In addition, these individuals may be more inclined to ignore opportunities to be creative when they believe they will encounter interactional injustice. These factors could negatively influence their desire to pursue creative output. Therefore, interactional justice may interact with creative personality to influence creative performance; thus, I hypothesize the following:

Hypothesis 5c: Perceptions of interactional justice moderate the relationship between creative personality and creative performance. Specifically, as perceptions of interactional justice increase the relationship between creative personality and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of interactional injustice decreases the relationship between creative personality and creative performance resulting in lower levels of creative performance.

Distributive Justice, Openness to Experience, and Creative Performance

As discussed, individuals who are high in openness to experience are coveted within organizations because they are thought to be more creatively productive than those who are not high on openness to experience (George & Zhou, 2001). Individuals high in openness to experience possess unique traits (e.g., imaginative, curious, original) that distinguish them from their peers (Costa & McCrae, 1997). However, it seems that these individuals possess attributes that may make them susceptible to issues related to distributive justice. For instance, individuals who have personalities that are related to high levels of creative potential tend to be sensitive to factors that may damage their self-concept or identity (Farmer et al., 2003; Fiest, 1998). They are also thought to be quite curious (Costa & McCrae, 1992; George & Zhou, 2001).

Because research indicates that individuals who are high on openness to experience have a high level of curiosity, it is possible that their inquisitiveness may compel them to scan their environment for information (James & Mazerolle, 2002). As

they gather information about the organizations patterns of fair or unfair distributions, it is likely that they will develop presumptions of how they may be treated with regard to allocations. If they believe that they may encounter distributive unfairness, they may have to contend with contextual constraints. One type of contextual constraint is materials or outcomes (Peters et al., 1985). For example, when employees believe that they will not obtain a fair distribution of materials this circumstance has become a potential obstacle to their performance (Klein & Kim, 1998; Peters et al., 1985).

As they contend with the perception of distributive unfairness, the distraction could induce negative emotions. This is particularly true for individuals who have creative potential, because of their sensitivity to external factors (Fiest, 1998). The disruption of negative emotions related to fears of injustice (i.e., a situational factor) could damage employees desire to capitalize on their characteristics (e.g., unconventional perspectives, imagination) that cause them to have high creative potential (Amabile, 1979). However, as they perceive that they will not encounter contextual constraints, but that they will have fair allocations and the proper materials (e.g., training) (which can potentially help to equip their domain relevant skills) to achieve their desired output, they may feel free to capitalize on aspects of their personality (e.g., imagination, curiosity) that are positively related to creative output.

Therefore, I believe that individuals who are high on openness to experience are more prone to become aware of unfair organizational distributions. Their pursuit of knowledge related to organizational allotments suggests that these employees, according to equity theory, will continue to evaluate their input(s) and output(s) in comparison to a

relevant other. If these employees discover that the organization is prone to be unfair, they may focus their attention toward ensuring that their inputs-outputs are balanced (Adams, 1965; Folger & Cropanzano, 1998). Their focus on balancing this equation, as they manage their expectations of unfairness or fairness may act as a distraction from their creative work which may have them focus more on extrinsic factors rather than their intrinsic motivations to perform. As a result of contextual constraints, negative emotions, and distractions their efforts to produce creative output could diminish (Amabile, 1979). Based on this argument I hypothesize the following:

Hypothesis 6a: Perceptions of distributive justice moderate the relationship between openness to experience and creative performance. Specifically, as perceptions of distributive justice increase the relationship between openness to experience and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of distributive injustice decrease the relationship between openness to experience and creative performance resulting in lower levels of creative performance.

Procedural Justice, Openness to Experience, and Creative Performance

As discussed, organizations often function in fast changing environments. To keep up with the volatility associated with corporate changes organizations may frequently modify policies and procedures. An organization may implement changes that some employees are not equipped to handle because they do not adapt well to change and as a result, their performance may suffer. However, those who are high on openness

to experience are thought to be quite adaptable to change, and are thus potentially better performers with regard to organizational modifications (Costa & McCrae, 1992; James & Mazerolle, 2002). Therefore, the output (e.g., creative performance) of individuals who are high in openness to experience may function as a source of productivity for organizations during times of change. Thus, organizations should be aware of fairness issues which could serve as a counterproductive distraction for those high on openness to experience. Organizations should be especially alert to fairness issues during times of change (e.g., organizational mergers), where individuals with creative tendencies are likely to be key contributors to organizational success.

As stated, individuals high in openness to experience are more adaptable than their peers, which equips them to better manage activities and circumstances that involve change (Costa & McCrae, 1992; James & Mazerolle, 2002). However, research has suggested that these individuals are also more willing to challenge the status quo. One can then posit that if these individuals observe procedural injustice, unlike their peers who may go along with the status quo, they may be more apt to challenge the state of affairs (Costa & McCrae, 1992; McCrae & Costa, 1997). The perception that an organization utilizes unfair procedures to reward them would indicate that they may not have high value within the organization (Lind & Tyler, 1988). Thus, their perception that they are being devalued along with their tendency to challenge the status quo could cause them to engage in counterproductive behavior. For example, they may begin a campaign to modify unfair procedures. The attention toward external issues (i.e.,

focusing on procedural unfairness) is thought to hinder creative performance (Amabile, 1979). Thus, based on this argument I hypothesize the following:

Hypothesis 6b: Perceptions of procedural justice moderate the relationship between openness to experience and creative performance. Specifically, as perceptions of procedural justice increase the relationship between openness to experience and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of procedural injustice decrease the relationship between openness to experience and creative performance resulting in lower levels of creative performance.

Interactional Justice, Openness to Experience, and Creative Performance

As mentioned, Cognitive Evaluation Theory suggests that individuals can be impacted by informational or controlling feedback (Deci & Ryan, 1980). Both the type (i.e., positive or negative) and method of how feedback is given (i.e., feedback style) are known to potentially impact creative performance (Zhou & Shalley, 2003). Just as interactional justice is related to managerial styles of communication. It is possible that *how* (i.e., informational or controlling, feedback style) a manager communicates could interact with *what* (i.e., fair or unfair messages) they communicate, which could influence an employee's response. As an example, the influence of these relationships could be enhanced for individuals who are high on openness to experience because they are likely to challenge the status quo (Costa & McCrae, 1992; McCrae & Costa, 1997).

The perception that these individuals may encounter interactional injustice could enhance their tendency to choose behaviors that are contrary to productive norms. They are also more likely than those low in openness to experience (who may be more accepting of organizational infractions) to put energy behind responding to unjust interactional treatment. The focus on these types of external factors could negatively impact their creative performance (Amabile, 1979). Conversely, as a result of information obtained due to their curious nature (James & Mazerolle, 2002), these individuals may be more motivated to perform if they perceive high levels of interactional justice within the organization. As stated, high levels of interactional justice (which could be perceived as helpful and informational) could enhance their self-concept and identity. In this type of circumstance individuals may feel freer to pursue positive unconventional outcomes (e.g., creative performance). Based on this argument I hypothesize the following:

Hypothesis 6c: Perceptions of interactional justice moderate the relationship between openness to experience and creative performance. Specifically, as perceptions of interactional justice increase the relationship between openness to experience and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of interactional injustice decrease the relationship between openness to experience and creative performance resulting in lower levels of creative performance.

Distributive, Procedural, and Interactional Justice, Risk Seeking, and Creative Performance

As discussed, risk propensity refers to the tendency of a decision maker to take or avoid risks in certain situations; some people are risk seekers who actively seek risk and enjoy the challenge of risk, some are indifferent about risk, and others are risk-averse (i.e., actively avoid risk) (Sitkin & Pablo, 1992; Wiseman & Gomez-Mejia, 1998). An individual's risk propensity is important because risk taking tendencies are thought to increase the likelihood of creative behavior (Barron & Harrington, 1981; Shalley et al., 2004).

Risk propensity is also significant because the level of tolerance that an individual has for risk plays an important role in how an individual responds to justice concerns (Lind & Van den Bos, 2002). Thus, environmental factors (e.g., justice issues) may interact differently with individuals who have varied levels of risk propensities, in fact, Colquitt and colleagues suggest that “though risk levels are, to a large extent, driven by situational characteristics, highly risk-averse individuals view and react to those situations differently than less risk-averse individuals” (Colquitt et al., 2006, p. 115). Thus, individuals who are high in risk seeking may perceive environmental factors differently than risk averse individuals. The variation in their perceptions could cause the organizational context to have a different influence on them; thereby, resulting in dissimilar organizational outputs (Colquitt et al., 2006).

In addition, organizational justice matters could be associated with volatility and uncertainty within an organization (Colquitt et al., 2006; Folger & Cropanzano, 1998).

For example, in response to issues of injustice and unfairness employees may seek to be engaged in lawsuits against the organization (Dunford & Devine, 1998), respond negatively to layoffs (Brockner et al., 1994), and have decreased levels of trust and satisfaction (Colquitt et al., 2001). Thus, perceptions of injustice may contribute to a disorderly or uncertain organizational environment. In fact, procedural injustice is thought to be correlated with the amount of uncertainty that employees perceive (Colquitt et al., 2006; Sweeney & McFarlin, 1993).

An atmosphere that does not adhere to social norms and generally accepted standards of justice may negatively impact the performance of many employees (Folger & Cropanzano, 1998). However, the uncertainty associated with a volatile environment may provide a productive context for a risk seeking individual. Risk taking individuals are thought to more readily take chances and pursue unorthodox approaches to solving a problem (Amabile, 1988; Ruscio et al., 1998). This tendency may be enhanced in an environment that seems to scoff at social norms. Therefore, I believe that risk seeking individuals may flourish in an environment perceived to be unjust because they may assume that unconventional behavior, to some extent, would be supported.

Research has indicated that the pursuit of creative output is often accompanied by uncertainty and unconventional work. How individuals manage the uncertainty related to their task is thought to be associated with their creative efforts (Amabile, 1988; Zhou & George, 2003). I believe that the perceptions of an unjust environment that does not adhere to the social norms of fairness (e.g., consistency) may combine with the traits of a risk seeker to result in increased creative performance. Individuals who are high in

risk seeking may capitalize on perceptions of uncertainty (by feeling freer to engage in risk taking behaviors) in an inconsistent organization which could enhance individual creativity. I assert that this reasoning holds for all three aspects of justice: distributive, procedural, and interactional. Based on this argument I hypothesize the following:

Hypothesis 7a: Perceptions of distributive injustice positively moderate the relationship between risk seeking and creative performance. Specifically, as perceptions of distributive injustice increase the relationship between risk seeking and creative performance is strengthened resulting in higher levels of creative performance.

Hypothesis 7b: Perceptions of procedural injustice positively moderate the relationship between risk seeking and creative performance. Specifically, as perceptions of procedural injustice increase the relationship between risk seeking and creative performance is strengthened resulting in higher levels of creative performance.

Hypothesis 7c: Perceptions of interactional injustice positively moderate the relationship between risk seeking and creative performance. Specifically, as perceptions of interactional injustice increase the relationship between risk seeking and creative performance is strengthened resulting in higher levels of creative performance.

Distributive Justice, Self-Efficacy, and Creative Performance

Research demonstrates that individuals with varied levels of self-efficacy respond differently toward varied situations (Chen et al., 2001; Duffy et al., 2000). In fact, the relationships between varied levels of self-efficacy and work outcomes are inconsistent (Eden & Aviram, 1993; LePine & VanDyne, 1998). Thus, perceptions of different environmental factors (e.g., organizational justice) may provide insight as to why varied self-efficacy levels result in various levels of performance.

Equity theory provides an explanation for why individuals with high self-efficacy may be less creatively productive when a negative environmental circumstance like distributive injustice exists. As mentioned, the equity theory asserts that individuals manage an equation consisting of inputs and outputs in an effort to maintain parity with others (Adams, 1965). Self-efficacy can be considered an input that facilitates an employee's contribution to organizational tasks. If individuals with high self-efficacy perceive that they will encounter distributive injustice their self-efficacy could be negatively influenced. These individuals may believe that the unfair distribution may be related to their ability to perform a task (i.e., they may deem they are being compensated unfairly because of substandard work). Their waning belief in their abilities to perform, as they perceive distributive unfairness, may weaken the relationship between self-efficacy and productive outputs.

Furthermore, the lack of desired materials, as a result of distributive injustice, may function as a contextual constraint (Klein & Kim, 1998; Peters et al., 1985). The constraint of distributive unfairness, that could result in limited materials, may cause

individuals who have the ability to succeed to experience a decrease in their belief that that they can succeed in their efforts to perform. Thus, the joint impact of distributive injustice and waning self-efficacy could lead to a decrease in output, potentially creative performance. Conversely, the combined impact of distributive justice and increased levels of self-efficacy, when distributions are perceived to be fair, may lead to higher individual creativity. Based on this argument I hypothesize the following:

Hypothesis 8a: Perceptions of distributive justice moderate the relationship between self-efficacy and creative performance. Specifically, as perceptions of distributive justice increase the relationship between self-efficacy and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of distributive injustice decrease the relationship between self-efficacy and creative performance resulting in lower levels of creative performance.

Procedural Justice, Self-Efficacy, and Creative Performance

As mentioned, procedural fairness models like the group-value model assert that people are concerned about procedural justice issues because processes speak to how much employees are respected and valued by authority figures endorsing organizational procedures (Lind & Tyler, 1988). As a consequence, if employees believe that the organizations procedures tend to be fair, employees may assess that the authority figures are more trustworthy and may also feel a greater sense of identity and self worth (Tyler, 1989; Tyler & Smith, 1999). Whereas, the perception that procedures tend to be unfair

may deflate an individual's self-efficacy resulting in diminished outputs. Individuals may interpret the perception of procedural injustice to be commentary from the organization about how valuable they are to the company. When these individuals encounter and believe that they will continue to encounter procedures that devalue them, their self-efficacy could be weakened. Thus, the joint influence of self efficacy (as related to their self concept) and organizational procedural justice issues could impact creative performance.

Individuals who have a high level of self-efficacy are also thought to have the ability to successfully cope with challenging situations (Bandura, 1986). Coping abilities may be beneficial in attempts to be creative because of its strong relationship with uncertainty. Uncertainty generally accompanies creativity and coping abilities may assist an individual in efforts to overcome this uncomfortable circumstance (Bandura, 1986; Zhou & George, 2003). Their efforts to capitalize on this strength may decrease as they pursue creative output when procedural unfairness is perceived, because perceptions of procedural unfairness may distract their work endeavors (as they split their efforts between dealing with procedural unfairness and efforts to produce creative output) (Amabile, 1979). Based on these arguments, I assert that negative perceptions of an organizational environment (e.g., procedural injustice) could have an interaction with self-efficacy that may negatively impact creative performance, while positive perceptions of procedural justice might possibly interact with self-efficacy to improve creative performance. Therefore, I hypothesize the following:

Hypothesis 8b: Perceptions of procedural justice moderate the relationship between self-efficacy and creative performance. Specifically, as perceptions of procedural justice increase the relationship between self-efficacy and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of procedural injustice decrease the relationship between self-efficacy and creative performance resulting in lower levels of creative performance.

Interactional Justice, Self-Efficacy, and Creative Performance

Individuals with different levels of belief about their capacity to perform in a business setting may take precautionary actions to maintain their sense of worth and value regarding organizational functions and interactions (Chen et al., 2001; Jones et al., 1981). In fact, some individuals may make efforts to shield themselves from potentially negative information (e.g., seeking out their salary as compared to peers and discovering that they are paid less). However, there are some factors that employees can avoid (e.g., comparing their salaries) and others that they cannot (e.g., how their managers communicate with them).

Thus, to function in their organizational role it is likely that employees will have to communicate with their superior (i.e., employees can not always shield themselves from potentially negative interactions). As mentioned, employees who have high self-efficacy are not immune to counterproductive environmental influences (Chen et al., 2001; Duffy et al., 2000); therefore, the manner in which superiors speak with

subordinates could negatively influence an individual's self-efficacy. The messages from the superior could be perceived as constraining and controlling; these types of perceptions are thought to hinder creative work, even for those who have creative potential (Deci & Ryan, 1980; Zhou & Shalley, 2003). Thus, when superiors have a tendency to engage in interactional unfair behaviors, individuals' belief in their capabilities may decrease. Therefore, perceptions of interactional injustice may join with self-efficacy issues and potentially decrease creative performance. Conversely, perceptions of interactional justice may combine with self-efficacy to increase individual creativity. Therefore, I hypothesize the following:

Hypothesis 8c: Perceptions of interactional justice moderate the relationship between self-efficacy and creative performance. Specifically, as perceptions of interactional justice increase the relationship between self-efficacy and creative performance is strengthened resulting in higher levels of creative performance, just as perceptions of interactional injustice decrease the relationship between self-efficacy and creative performance resulting in lower levels of creative performance.

CHAPTER IV

EMPIRICAL STUDIES

The previously discussed hypotheses were tested in a laboratory setting. Two pilot studies were conducted prior to the laboratory study. The first pilot study was an effort to ensure that the measures in the laboratory investigation had appropriate psychometric properties and to validate the functionality of a web based survey tool. The second pilot study was to ensure that the laboratory protocol sufficiently manipulated the six justice conditions (i.e., distributive justice, distributive injustice, procedural justice, procedural injustice, interactional justice, and interactional injustice). Both of the pilot studies were designed to test fundamental ideas developed in Chapter III in order to provide the confidence required to proceed to hypotheses testing in the actual laboratory investigation. Therefore, pilot study one and two will be described, which will be followed by a detailed description of the laboratory methodology, results, and discussion.

Method

Pilot Study One

Research Setting and Participants. A pilot study was conducted with 121 participants. The subjects were undergraduate students who were recruited from an

introductory business course in a large southwestern university. The subjects were given extra credit points in exchange for their participation in the study.

The pilot study was conducted in two phases. Participants filled out a web based online-survey for phase one of the study. The online survey asked participants questions about the five individual differences discussed in previous chapters: intrinsic motivation, creative personality, risk propensity, openness to experience, and self-efficacy. After approximately two weeks, phase two of the study was conducted in a laboratory setting. Participants were brought into the laboratory and were asked to complete a creativity in-basket exercise. As mentioned, the focus of pilot study one was to ensure that the proposed independent measures and dependent measure had strong psychometric properties. The pilot study also provided an opportunity to validate the functionality and usefulness of the web based online survey.

Measures. All measures used in this study are shown in the appendix.

Independent Variables

Intrinsic Motivation. Intrinsic motivation was measured by a five item, 6-point scale (Tierney et al., 1999). The items assessed the extent of pleasure or enjoyment that individuals experience while producing new ideas. On a 6-point scale, subjects indicated the extent to which they agreed or disagreed with each of the five items, ranging from 1, strongly disagree, to 6, strongly agree. The scores on each item were averaged to attain participants' level of intrinsic motivation. The Cronbach's alpha was .80 for the 5-item intrinsic motivation scale.

Creative Personality. Creative personality was assessed utilizing the 30-item Creative Personality Scale (CPS) (Gough, 1979). Subjects were presented with 30 adjectives, and were asked to select each adjective that most accurately described them. Eighteen of the items described highly creative people and 12 adjectives described less creative people. As proposed by Gough (1979), a value of +1 was assigned to adjectives that described creative people (e.g., confident, clever) and a value of -1 was assigned to adjectives that described less creative people (e.g., interests narrow, cautious). The values were then summed to form a CPS index. The reliability of this index was calculated using a weighted composite technique (Lord & Novick, 1968). The Cronbach's alpha was .70.

Openness to Experience. Openness to experience was measured using twelve items from a scale developed by Costa and McCrae (1992). These items take a broad approach with regard to this particular construct. The items in this scale ask participants about foreign foods, poetry, daydreaming, art, nature, and so on. This measure utilizes a five point Likert scale ranging from 1, strongly disagree, to 5, strongly agree. The Cronbach's alpha was .72.

Risk Propensity. The scale utilized to measure risk propensity is a ten item scale developed by Jackson (1976). These items investigate how people respond to risk taking. They are related to how individuals might react to risk taking opportunities in various circumstances. This particular measure utilizes a five point Likert scale from 1, strongly disagree, to 5, strongly agree. The Cronbach's alpha was .86.

Self-Efficacy. To measure participants' self-efficacy, Chen et al. (2001) scale was utilized. This scale consists of eight items from Chen et al. self-efficacy scale (2001). The participants were asked to indicate the extent to which they agreed or disagreed with each statement on a 5-point Likert scale ranging from 1, strongly disagree, to 5, strongly agree. The Cronbach's alpha was .90.

Dependent Variable

Creative Performance. Participants worked on an in-basket exercise to provide information for the dependent variable (i.e., creative performance). The responses were analyzed using a consensual assessment method that was developed by Amabile (1983). The consensual assessment technique is often used in laboratory research that investigates creativity (e.g., Shalley, 1991; 1995; 2001; Zhou, 1998). Four business graduate students functioned as the creativity judges. Each judge was asked to independently assess the overall creativity of each memo solution on a 7-point Likert scale (1-not at all creative; 7-extremely creative). The creativity score was calculated for each participant as the mean of the creative ratings of the four judges across the seven memos to be described later in this text. The interrater reliability of the judges' ratings was computed using r_{wg} (James et al., 1984), the average was $r_{wg(7)}=0.89$.

Pilot Study Two

Research Setting and Participants. A second pilot study was conducted with 71 participants to ensure the laboratory manipulations function as designed (Kerlinger & Lee, 2000). The subjects were undergraduate students who were recruited from upper

division business courses in a large southwestern university. The subjects were given extra credit points for their participation in the investigation. The overall goal of this pilot study was to ensure that the moderation variables (i.e., distributive justice, distributive injustice, procedural justice, procedural injustice, interactional justice, and interactional injustice) could be properly manipulated in the laboratory.

This phase was conducted in a behavioral laboratory. The students were randomly assigned to one of six mutually exclusive justice conditions: distributive justice, distributive injustice, procedural justice, procedural injustice, interactional justice, and interactional injustice. The subjects experienced a different manipulation depending on which condition they were assigned. The subjects did not know that multiple conditions were executed; they were only presented with information shared in their randomly assigned condition.

As students entered the behavioral laboratory they were welcomed and asked to participate in a task where it would be difficult to determine whether or not they performed well. The ambiguous nature of the task allowed for the manipulation of the justice conditions while minimizing subject suspicions. Thus, the students were asked to complete an anagram task that would be immediately evaluated by the primary investigator. The subjects were given three words and given one minute to generate as many derived words as possible for each given word. Regardless of their assigned condition, the subjects were also told that their performance on this anagram task would determine the number of extra credit points that they would receive.

After completing the anagram task all of the students were asked to complete a small set of questions. They were informed that their performance on the anagram task would be graded while they responded to these additional questions. The subjects would also receive a feedback form that would indicate the number of points that they would receive in exchange for their participation in the study. They were reminded that the number of points that they would receive depended on their performance on the anagram task.

The students were asked to remain silent and not share the number of words that they generated for their performance on the anagram task. Once they were given feedback on their performance, they were asked not to indicate to anyone the number of extra credit points that they received. They were also asked not to share any comments written on their feedback sheet with the other participants. It is important to note that the individuals in the distributive justice, distributive injustice, procedural justice and procedural injustice received individual feedback with their name and the total number of extra credit points that they were to receive. Individuals in the interactional justice and interactional injustice condition received individual feedback that included their name, total number of extra credit points that they would receive, as well as comments from the primary investigator about their performance. The exact wording utilized in the laboratory investigation for these six independent conditions is detailed in the Procedure and Manipulations section.

The experimenter then individually manipulated the six different justice conditions. The conditions were mutually exclusive, they were not conducted as a cross

designed. In the distributive justice and distributive injustice conditions the students were given individual feedback forms (i.e., that included their names and number of extra credit points that they would receive). In the distributive justice condition (N = 11) all of the participants were told that they would receive the maximum number of extra credit points that their professor promised. In the distributive injustice condition (N = 15) all of the participants were told that they would receive one half of the number of extra credits that their professor promised. After receiving this information, the students responded to justice and manipulation check items.

In the procedural justice and procedural injustice conditions the students were given individual feedback forms (i.e., that had their names and number of extra credit points that they would receive). In the procedural justice condition (N = 9) all of the participants were told that they would receive the maximum number of extra credit points that their professor promised. They were also told that all of their items were reviewed and graded, consistent criteria was used, their work was evaluated objectively, their work was reviewed without bias, and they would be able to appeal the assessment of their work at the end of the session.

In the procedural injustice condition (N = 7) all of the participants were told that they would receive the maximum number of extra credits that their professor promised. However, they were also told their work was not judged using consistent criteria, the criteria used to assess their work was subjective, the criteria used to evaluate their work may vary from one participant to another, there might have been some bias in the assessment of their work, and they would not be able to appeal the assessment of their

work at the end of the session. After receiving the information about how their work was evaluated, the students (i.e., those who were in the procedural justice and procedural injustice conditions) responded to justice and manipulation check items.

As mentioned, subjects in the interactional justice and interactional injustice conditions were given individual feedback forms that included their names, the amount of extra credit points that they earned (i.e., in which they were told depended on their performance on the anagram task), and written comments about their performance.

In the interactional justice condition ($N = 14$) the subjects were given the maximum number of points offered by their professor. They were also told that, “It seems as though you completed the anagram task with great care and focus. Your individual contribution is appreciated.” In the interactional injustice condition ($N = 15$) the subjects were given the maximum number of points offered by their professor. They were also told that, “It seems as though your work is inferior. You appear to be an underachiever.” In both of the interactional justice conditions, after receiving the information about how their work was evaluated, the students responded to justice and manipulation check items.

The manipulations for the six conditions proved to be successful. Each of the six conditions was individually tested in mutually exclusive experimental groups. Thus, the emphasis was to ensure that the corresponding justice and injustice condition were significantly different on the manipulation check items. Three items were used to determine whether or not the distributive justice condition was significantly different from the distributive injustice condition. The items were, “I will get all of the promised

extra credit points regardless of how many words I identified on the anagram task,” “I will not get the full extra credit points that were previously promised to me,” and “I will receive the maximum number of extra credit points in exchange for my participation.” The t-test for the distributive justice and distributive injustice conditions demonstrate that they were significantly different $t(24) = 2.168, p < .05$.

Eleven items were used to determine whether or not the procedural justice condition was significantly different from the procedural injustice condition on the manipulation check items. The items were, “All of the words that I identified for the anagram task were graded,” “I was not asked to give my opinion about this task,” “I was given the opportunity to suggest how this task might be improved,” “The procedure that was used to decide my extra credit points was fair,” “My work was evaluated objectively,” “The experimenter did not review all of the solutions that I provided to determine my grade,” “I will not be able to appeal the evaluation of my work,” “My work was evaluated without bias,” “My work was assessed using consistent criteria,” “I will be able to appeal the assessment of my work at the end of this session,” and “My work was not evaluated using consistent criteria.” The t-test for the procedural justice and procedural injustice conditions demonstrate that they were significantly different $t(14) = -6.173, p < .001$.

An effort was made to also determine whether or not the interactional justice condition was significantly different from the interactional injustice condition on the manipulation check items. Three items were used to determine whether or not the conditions were significantly different, “The experimenter stated that my work on the

anagram task was greatly appreciated,” “The experimenter’s comments were rude,” and “The experimenter stated that my anagram task performance was inferior.” The t-test for the interactional justice and interactional injustice conditions demonstrate that they were significantly different $t(27) = -17.250, p < .001$. Thus, the pilot study results provided the assurance required to move forward to the actual laboratory investigation.

Sample and Procedure

Sample

Two hundred and twenty five undergraduate students were recruited from a large university in the southwestern United States using a college subject pool. More than half of the participants were male 65% (N = 147) and 94% of participants were between 18 and 22 years of age. The majority of the respondents 83% (N = 186) were White, 11% (N = 24) were Latino, 4% (N = 8) were Asian, and 2% (N = 5) were African American. Approximately one-half of the participants were employed (50%) at the time of this study. In addition, the classification of the subjects was observed to be 1% (N = 2) Freshman, 40% (N = 91) Sophomore, 40% (N = 91) Junior, and 18% (N = 41) Seniors. Students were given extra credit points for their participation in the study.

Procedure and Manipulations

This investigation was conducted in two phases. In the first phase, participants completed a web based questionnaire containing demographic and control variables. They also answered questions related to the individual difference variables (i.e., intrinsic

motivation, openness to experience, creative personality, risk propensity, and self-efficacy) that are essential to the model. Approximately one month later, the same individuals from phase one participated in phase two in which they received the justice manipulations and completed a creative performance in-basket exercise.

Six individual justice conditions were manipulated to test the hypotheses. The manipulations were not a cross designed, the conditions were mutually exclusive. During the second phase of the study, subjects were randomly assigned to one of the six different justice conditions. As students entered the laboratory they were welcomed and given a consent form and scantron. All of the participants were told the following:

Today you will be asked to answer some questions and participate in two activities. The first activity involves anagrams. Anagrams are words or phrases formed by reordering the letters of another word/ phrase or finding words that can be derived from the given word. An example would be rearranging satin to stain. Another example would be identifying lie from the word vile. The second activity involves creative performance.

The first task (i.e., anagram task) is critical because the amount of extra credit points that you receive will depend on your performance on this task. In sum, in exchange for your participation you can receive the maximum number of extra credit points offered by your professor toward your management class grade, but the actual number of points you'll receive will depend on your performance on the anagram task. In other words, you may receive the maximum amount of extra

credit points, or you may only receive $1/4$, $1/2$, or $2/3$ of the offered points, depending on your performance.

The researcher then passed out the first packet, which contained three anagram tasks. The students were asked to keep the packet closed until everyone received one. At this point, students were instructed to place their identification information on the front of the packet. The researcher then informed them that they would have one minute to complete each of the three anagram tasks. The investigator then kept time using a stop clock that was visible to the students and gave the students one minute to complete each anagram task. Once the task was completed, the researcher immediately retrieved all of the packets and asked the students to continue to remain silent. The participants were then told the following:

Thank you for completing this initial task. I now ask that you complete a small set of questions. Please do not begin completing these questions until the experimenter indicates that it is time to do so. I would like for everyone to begin answering the questions at the same time. While you are completing these questions I will be reviewing and grading the anagram task.

The students were given packet two which had several sections. The first section included filler questions that were designed to keep the students focused while the experimenter graded their anagram task. In reality, their individual feedback form had already been completed with information that aligned with the justice condition to which they were randomly assigned. However, while they complete the filler questions the researcher reviewed the individual feedback forms that were to be distributed to the

participants. The researcher ensured that students who had failed to appear for the laboratory experiment (i.e., phase two of the study) did not have their individual feedback forms returned. Attempting to return individual feedback forms to participants who were not present would bring possible suspicion to the manipulations (i.e., students might discern that the individual feedback was predetermined). At this point, individuals received different information about their graded anagram task which was dependent on the justice condition to which they have been randomly assigned.

The participants assigned to the distributive justice condition ($N = 43$) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. Once again, I ask that you do not share your grade with anyone. In addition, please hold any questions or comments associated with this information until the end of the task.

As indicated on their individual grade sheet, all students in this condition were given the maximum number of extra credit points that was promised to them by their professor.

The participants assigned to the distributive injustice condition ($N = 42$) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. Once again, I ask

that you do not share your grade with anyone. In addition, please hold any questions or comments associated with this information until the end of the task.

As indicated on their individual grade sheet, all students in this condition were given one half of the number of extra credit points promised to them by their professor.

The participants assigned to the procedural justice condition ($N = 27$) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. I reviewed and graded all of the items that you identified on this task. To determine your performance, your work was judged using consistent criteria. The criteria that was used to assess your work was objective. Thus, all of your work was reviewed without bias. You will also be able to appeal the assessment of your work at the end of this session.

I graded all identified items to determine your performance. Lastly, we want to know how this task could have been better presented. Please write down any comments or suggestions on the sheet that has been provided. You will have additional time at the end of the session to document any of your ideas or methods for improvement. Your comments/suggestions will be thoroughly reviewed by myself and my research team. We look forward to implementing your suggestions. Once again, I ask that you do not share your grade with

anyone. In addition, please hold any questions or comments associated with this information until the end of this session.

As indicated on their individual grade sheet, all students in this condition were given the maximum number of extra credit points that was promised to them by their professor.

The participants assigned to the procedural injustice condition ($N = 24$) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. To determine your performance, your work was not judged using consistent criteria. The criteria that was used to assess your work was subjective. The criteria used may vary from one participant to another. Thus, it is possible that there might have been some bias in the assessment of your work. Also, you will not be able to appeal the assessment of your work at the end of this session.

For most participants, I grade all identified items to determine their performance. Unfortunately for today, time does not permit me to thoroughly review all of the words that you may or may not have derived from the anagram. Therefore, I quickly spot checked three of the words that you derived from each of the anagrams. In addition, in the other sessions that were conducted the participants and I have discussed the best procedure with regard to administering and grading this task. I have implemented many of their suggestions. However, I will not be able to receive input during this session. Once again, I ask that you do

not share your grade with anyone. In addition, please hold any questions or comments associated with this information until the end of this session.

As indicated on their individual grade sheet, all students in this condition were given the maximum number of extra credit points that was promised to them by their professor.

The participants assigned to the interactional justice condition (N = 46) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. Once again, I ask that you do not share your grade with anyone. In addition, please hold any questions or comments associated with this information until the end of this session.

As indicated on their individual grade sheet, all students in this condition were given the maximum number of extra credit points that was promised to them by their professor.

The students in this condition also had the following information written on their individual feedback form, “It seems as though you completed the anagram task with great care and focus. Your individual contribution is appreciated.”

The participants assigned to the interactional injustice condition (N = 43) were told the following:

As stated, I have graded the anagram task. Of course, some of you did better than others. As mentioned at the beginning of this session, your extra credit points are based on your performance on this anagram task. Once again, I ask

that you do not share your grade with anyone. In addition, please hold any questions or comments associated with this information until the end of this session.

As indicated on their individual grade sheet, all students in this condition were given the maximum number of extra credit points that was promised to them by their professor. The students in this condition also had the following information written on their individual feedback form, “It seems as though your work is inferior. You appear to be an underachiever.”

After the justice condition was administered (which varied depending on the condition to which the students were randomly assigned), all of the students were told the following:

After you have reviewed your grade sheet I ask that you turn to the next page in packet two. It is now time to complete another small set of questions and the final activity. Please stop when the packet indicates that you should do so. Please look up when the packet states to wait for the experimenter.

This portion of the packet asked the students to respond to a set of questions that were related to the moderating justice variables and manipulation check items. After all of the students had completed the questions, they were then prompted to begin the creativity task. The researcher stated the following information:

The creativity task includes information about a steel company. You will play the role of an HR director. As the HR director, you are to resolve issues related to the problem memos that are documented in your packet. You need to review the

memos that are described in the packet and come up with some creative solutions to the various organizational problems. A creative solution is defined as a solution that is both novel and useful. In other words, if a solution is only novel but not useful, or only useful but not novel, the solution will not be considered creative.

So, you are to respond to these problem memos as an HR director who is attempting to resolve organizational issues with a creative (i.e., novel and useful) solution. The creative solutions that you generate must be legal. Please carefully read the instructions in the packet. You may now begin to complete the creativity activity in the packet.

After completing the creativity task, students were debriefed and thanked for their participation. Subjects were encouraged to refrain from speaking about the study with any other students who take courses in the business school.

Measures

All of the measures used in the laboratory study are presented in the appendix.

Dependent Variable

The students worked on a complex-heuristic (Shalley, 1991) task in the form of an “in-basket exercise,” used commonly in creativity laboratory studies (e.g., Shalley, 1991, 1995; Shalley & Perry-Smith, 2001). This was utilized to measure the dependent variable (i.e., creative performance).

Each participant was assigned the role of a human resource director of a steel company who is responsible for responding to several organizational issues. The packet given to each participant included a description about the organizations background, information about the role to which they had been assigned, and six problem memos. The memos represented common issues a human resource director might encounter during a workday. Subjects were asked to be creative in generating a solution to each problem presented in the six memos. They were informed that creative solutions are defined as novel and useful solutions that are appropriate, and thus, participants were asked to generate solutions that were applicable, original, and legal.

All participants' responses on the memo task were analyzed using a consensual assessment technique developed by Amabile (1983). This technique is often used in creativity research when using problem memos to measure creativity in a laboratory investigation (e.g., Shalley, 1991; Zhou, 1998). To determine the participant's level of creativity four creativity judges assessed the generated solutions. The creativity judges were business doctoral students who had knowledge about creativity research.

The creativity judges (business doctoral students) were asked to independently assess the overall creativity of each given solution on a 7-point Likert scale (1—not at all creative; 7—extremely creative). The creativity score was calculated for each participant as the mean of the creative ratings of the four judges across the solutions to the memos. The interrater reliability of the judges' ratings was computed using $r_{wg(6)} = .83$ (James et al., 1984). The inter-judge reliability is important in validating this measure because it is the extent to which the ratings were in agreement.

Independent Variables

Intrinsic Motivation. Intrinsic motivation was measured by a five item, 6-point scale (Tierney et al., 1999) that is described above as a part of pilot study one. The Cronbach's alpha was .79 for the 5-item intrinsic motivation scale.

Creative Personality. Creative personality was measured with a 30-item Creative Personality Scale (CPS) (Gough, 1979) that is described above as a part of pilot study one. The Cronbach's alpha is .56 for the adjectives.

Openness to Experience. The scale utilized to measure the openness to experience construct contains twelve items from the NEO PI scale developed by Costa and McCrae (1992) that is described above as a part of pilot study one. The Cronbach's alpha is .68.

Risk Propensity. The scale used to measure risk propensity is a ten item scale developed by Jackson (1976) that is described above as a part of pilot study one. The Cronbach's alpha is .81 for the ten item scale.

Self-Efficacy. To measure participants' self-efficacy, Chen et al. (2001) scale was utilized, it is described above as a part of pilot study one. The Cronbach's alpha is .87.

Control Variables

The control variables for this study are skill and gender. Research has indicated that gender could potentially influence an individual's perception of fairness (Cohen-Charash & Spector, 2001; Kohlberg, 1981). Therefore, the study controlled for subjects' gender and it was coded as 1 for women and 2 for men. Skill level is thought to have a

relationship with creative performance (Amabile, 1983; 1988) and an attempt was made to control for this factor. Subjects self reported grade point average was used to represent skill in this investigation.

Manipulation Check Items

The questionnaire packet included sets of items to help determine whether or not the distributive, procedural, and interactional justice and injustice manipulations were successful. First, the questionnaire included three items as a check to determine whether or not the distributive justice and distributive injustice manipulations influenced the participant's distributive justice perceptions. The items were, "I will get all of the promised extra credit points regardless of how many words I identified on the anagram task," "I will not get the full extra credit points that were previously promised to me," and "I will receive the maximum number of extra credit points in exchange for my participation." These three distributive justice items demonstrated acceptable reliability ($\alpha = .76$). The results of the difference between these two justice conditions as well as the following four justice conditions (i.e., procedural justice, procedural injustice, interactional justice, and interactional injustice) will be detailed in the following Results section.

Second, the questionnaire included eleven items as a check to determine whether or not the procedural justice and procedural injustice manipulations were successful in influencing the participant's procedural justice perceptions. The items were, "All of the words that I identified for the anagram task were graded," "I was not asked to give my opinion about this task," "I was given the opportunity to suggest how this task might be

improved,” “The procedure that was used to decide my extra credit points was fair,” “My work was evaluated objectively,” “The experimenter did not review all of the solutions that I provided to determine my grade,” “I will not be able to appeal the evaluation of my work,” “My work was evaluated without bias,” “My work was assessed using consistent criteria,” “I will be able to appeal the assessment of my work at the end of this session,” and “My work was not evaluated using consistent criteria.” These eleven procedural justice items demonstrated acceptable reliability ($\alpha = .84$).

Third, the questionnaire included three items as a check to determine whether or not the interactional justice and interactional injustice manipulations effectively influenced the participant’s interactional justice perceptions. The items were, “The experimenter stated that my work on the anagram task was greatly appreciated,” “The experimenter’s comments were rude,” and “The experimenter stated that my anagram task performance was inferior.” These three interactional justice items demonstrated acceptable reliability ($\alpha = .71$).

CHAPTER V

RESULTS

Manipulation Checks

Three sets of independent t-test analysis were conducted to further determine whether or not the justice manipulations were successful. Participants responded to the manipulation check items for all of the justice conditions using a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). The three-item distributive justice manipulation check showed that participants in the distributive justice condition agreed more with the statements that they were given the distributive rewards that were promised to them and that their distributions were fair ($M = 5.75$, $SD = .99$) than those in the distributive injustice condition ($M = 3.94$ $SD = 2.13$). The means are significantly different, $t(83) = 5.02$, $p < .001$. The mean comparisons for the manipulation check questions indicate that the manipulation of distributive justice and distributive injustice was successful.

The eleven-item procedural justice manipulation check indicate that participants in the procedural justice condition agreed more with the statements that the procedures used to determine their distribution outcomes were fair ($M = 5.83$, $SD = .87$) than those in the procedural injustice condition ($M = 2.38$ $SD = .95$). The means are significantly different, $t(49) = -13.594$, $p < .001$. The mean comparisons for the manipulation check

questions indicate that the manipulation of procedural justice and procedural injustice was successful.

The three-item interactional justice manipulation check showed that participants in the interactional justice condition agreed more with the statements that they were treated with interactional fairness when they interacted with the individual (i.e., researcher) who was an authority figure during this investigation ($M = 6.79$, $SD = .39$) at a higher level than those in the interactional injustice condition ($M = 2.98$, $SD = 1.18$). The means are significantly different, $t(87) = 20.62$, $p < .001$. The mean comparisons for the manipulation check questions indicate that the manipulation of interactional justice and interactional injustice was successful. Table 1 reports the means and standard deviations for the six justice conditions.

Table 1
Means and Standard Deviations for Justice Manipulation Check Items

Justice Conditions	M	SD
Distributive Justice	5.75	.99
Distributive Injustice	3.94	2.13
Procedural Justice	5.83	.87
Procedural Injustice	2.38	.95
Interactional Justice	6.79	.39
Interactional Injustice	2.98	1.18

Hypotheses Testing

Means, standard deviations, and correlations for the variables used in this investigation are presented in Table 2. Correlations between variables do not indicate causality (Kerlinger & Lee, 2000). However, findings (e.g., correlations) observed in this investigation do offer useful insights towards confirming relationships. For example, the correlation table did demonstrate that openness to experience and creative personality (i.e., individual differences known to precede individual creativity) are significantly correlated with individual creative performance ($r = .175, p < .05$) and ($r = .164, p < .05$), respectively. In addition, an examination of the correlation table demonstrates that skill is indeed positively related to creative performance ($r = .144, p < .05$). This provides empirical support, in addition to the previously presented reasoning presented for why skill (e.g., grade point average) should be controlled.

I conducted Ordinary Least Squared (OLS) regression analysis to test the stated hypotheses. The moderated hypotheses were tested via the standard means of assessing moderated models using regression analysis (e.g., Barron & Kenny, 1986). Variables involved in the moderation calculation were centered to reduce multicollinearity resulting from the use of interaction terms. As discussed by Aiken and West (1991), the centering of the variables (e.g., independent continuous variables involved in the moderation calculation) manages the possible high correlations between each of the main effect variables and the interaction terms.

Table 2
Means, Standard Deviations, and Correlations

Variables	<u>M</u>	SD	Gender	Skill	Intrinsic Motivation	Risk Propensity	Openness to Experience	Creative Personality	Self-Efficacy	Distributive Justice	Distributive Injustice	Procedural Justice	Procedural Injustice	Interactional Justice	Interactional Injustice	Creative Performance
1. Gender	1.65	.48	-													
2. Skill	2.90	.43	-.004	-												
3. Intrinsic Motivation	3.88	.63	.171*	.190**	-											
4. Risk Propensity	3.20	.60	.306**	-.045	.222**	-										
5. Openness to Experience	3.38	.46	-.142*	.146*	.424**	.068	-									
6. Creative Personality	6.03	3.21	.083	.074	.466**	.321**	.391**	-								
7. Self-Efficacy	4.08	.49	.176**	.020	.328**	.355**	.106	.416**	-							
8. Distributive Justice	.191	.394	-.002	-.121	-.057	-.083	-.015	-.047	.058	-						
9. Distributive Injustice	.187	.390	-.058	.066	.086	.129	.011	-.008	-.051	-.233*	-					
10. Procedural Justice	.120	.326	-.047	.053	.139*	.112	.157*	.193**	.139*	-.179**	.177**	-				
11. Procedural Injustice	.107	.309	.131	.029	.060	.044	-.003	.104	.021	-.168*	-.166*	-.128	-			
12. Interactional Justice	.204	.404	-.048	.004	-.141*	-.206**	-.026	-.060	-.099	-.246**	-.243**	-.187**	-.175**	-		
13. Interactional Injustice	.191	.394	.045	-.013	-.046	.039	-.096	-.125	-.038	-.236**	-.233**	-.179**	-.168*	-.246**	-	
14. Creative Performance	4.32	.43	-.207**	.144*	.092	.093	.175**	.164*	.075	-.096	.053	.184**	-.008	-.030	-.068	-

*p < .05

**p < .01

The data utilized in this laboratory investigation included one level of analysis that was empirically investigated as related to the testing of the proposed hypotheses. Hypothesis one, two, and three all propose a positive main effect relationship with the three different components of justice and creative performance. I asserted that distributive justice, procedural justice, and interactional justice would all have a positive main effect relationship with creative performance. The results demonstrate marginal support for hypotheses two. The findings suggest a significant main effect relationship between procedural justice and creative performance. In Step 1, individual creativity was regressed on the control variables gender and skill. This step did not demonstrate significance ($R^2 = .05$). In Step 2, individual creativity was regressed on procedural justice, this step was marginally significant ($R^2 = .11$, $\Delta R^2 = .06$). Thus, hypothesis two was supported. Table 3 summarizes the regression results for this hypothesis. No empirical support was found for the main effect relationship between distributive justice and individual creative performance. Similarly, no support was found for a main effect relationship between interactional justice and creative performance. The results for the non-significant regression models can be found in the appendix.

Table 3
*Regression of Main Effect of Procedural Justice and Individual Creativity
(Hypothesis 2 Supported)*

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.093	.105†	.059†
	Procedural Justice (PJ)	.125		
		.199†		

* $p \leq .05$

** $p < .01$

† $p < .10$

The tests of whether or not distributive justice, procedural justice, or interactional justice moderates the relationship between intrinsic motivation and individual creativity were posited in Hypothesis 4a, 4b, and 4c. No empirical evidence was found to support the suggestion that distributive, procedural, or interactional justice moderates the effects of intrinsic motivation on individual creativity. Similarly, the tests of whether or not distributive justice, procedural justice, or interactional justice moderates the relationship between creative personality and individual creativity that were presented in Hypotheses 5a, 5b, and 5c failed to demonstrate any empirical support. The results for the non-significant regression models related to justice and intrinsic motivation and creative personality can be found in the appendix.

The test of Hypotheses 6a, 6b, and 6c have been conducted for this investigation. These hypotheses propose that distributive justice, procedural justice, and interactional justice will moderate the relationship between openness to experience and creative performance. The results for hypotheses 6a are significant suggesting that distributive justice does indeed moderate the relationship between openness to experience and creative performance. This moderation is consistent with the posited hypothesis. In Step 1, I controlled for gender and skill. This step was significant ($R^2 = .09$). In Step 2, I regressed individual creativity on distributive justice and openness to experience. The results indicate that this step is not significant ($R^2 = .12$, $\Delta R^2 = .03$). In Step 3, the interaction between the distributive justice and openness to experience (Distributive Justice * Openness to Experience) were regressed against the dependent variable individual creative performance. As predicted, the interaction between distributive

justice and openness to experience was significantly related to individual creativity ($R^2 = .18$, $\Delta R^2 = .07$). Table 4 summarizes the regression results for Hypothesis 6a. Figure 2 illustrates the interaction effect between the perception of distributive justice and openness to experience on individual creativity. However, there is no empirical evidence to support the notion that procedural or interactional justice significantly moderates the effects of openness to experience on individual creativity; thus, hypotheses 6b and 6c were not supported. The results for the non-significant regression models can be found in the appendix.

Contrary to what was suggested in Hypothesis 7a, 7b, and 7c, the regression analysis conducted to determine whether or not distributive justice, procedural justice, or interactional justice moderated the relationship between risk propensity and individual creativity produced no significant results. There is no empirical evidence to support the notion that distributive, procedural, or interactional justice moderates the effects of risk propensity on individual creativity. Likewise, the tests of whether or not distributive justice, procedural justice, or interactional justice moderates the relationship between self-efficacy and individual creativity that were presented in Hypotheses 8a, 8b, and 8c failed to provide empirical support. The results for the non-significant regression models related to justice and risk propensity and self-efficacy can be found in the appendix.

Table 4
Regression of Interaction Between Distributive Justice and Openness to Experience on Individual Creativity (Hypothesis 6a Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154	.087*	
	Skill	.248*		
2	Gender	-.119	.118	.031
	Skill	.211 †		
	Distributive Justice (DJ)	-.086		
3	Openness to Experience (OE)	.159	.183*	.066*
	Gender	-.103		
	Skill	.186†		
	Distributive Justice (DJ)	.074		
	Openness to Experience (OE)	-.074		
	(DJ) x (OE)	.543*		

* $p \leq .05$

** $p < .01$

† $p < .10$

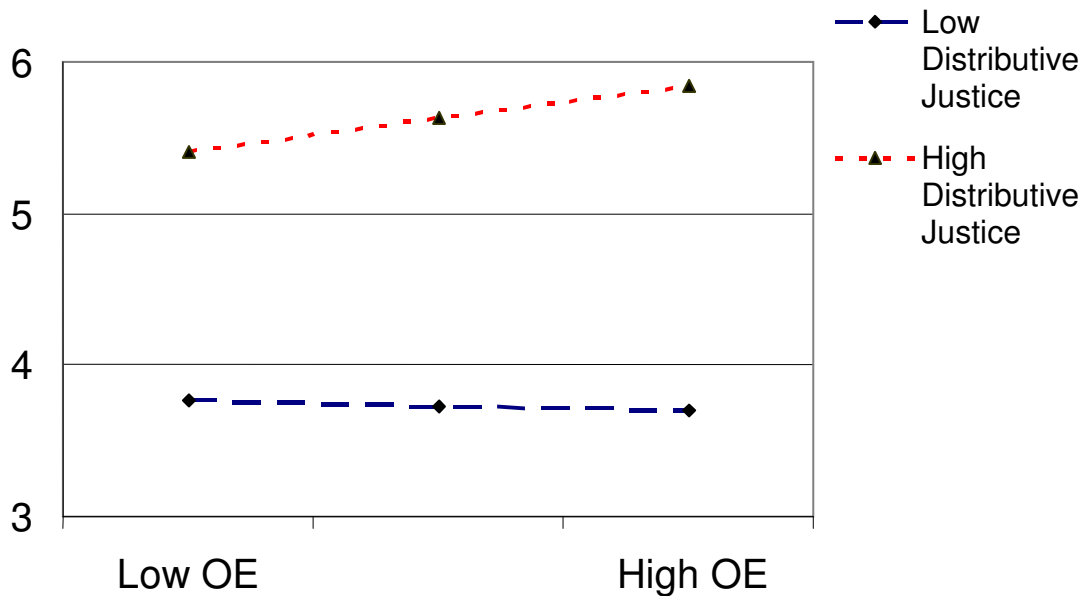


Figure 2. Interaction of distributive justice (DJ) and openness to experience (OE) on individual creativity

CHAPTER VI

DISCUSSION AND CONCLUSIONS

In this investigation, I asserted that three factors of organizational justice (i.e., distributive, procedural, and interactional) moderate the relationship between antecedents to individual creativity (i.e., creative personality, intrinsic motivation, openness to experience, risk seeking, and self-efficacy) and creative performance. I also posited that the three primary factors of organizational justice (i.e., distributive, procedural, and interactional) have a main effect relationship with creative performance.

Overall, this investigation provides some initial evidence that aspects of organizational justice may moderate the relationship between antecedents to individual creativity and individual creative performance. The analyses affirm that procedural justice has a main effect relationship with creative performance. The findings also indicate that distributive justice has a moderating relationship between the personality factor openness to experience and individual creative performance. As a result, this section will begin with an explanation of the results related to procedural justice and distributive justice, followed by a discussion of some additional findings and an overall summary of the results. Lastly, practical implications, study limitations, and future research will be discussed.

Findings Related to Procedural Justice

Consistent with the theory development, the findings indicate a marginally significant main effect relationship between procedural justice and creative performance. The regression analysis suggests a positive relationship between the constructs in support of hypothesis two. The regression results demonstrate that when individuals experience a high level of procedural justice, their individual creative performance is increased. The correlation observed in Table 1 also demonstrates a positive relationship between the two variables since procedural justice and creative performance are significantly correlated ($r = .184, p < .01$). Procedural justice has been shown to have an important relationship with many organizational outcomes (e.g., organizational commitment, job satisfaction) (Colquitt et al., 2001). However, this is the first laboratory investigation that provides empirical evidence to determine whether or not procedural justice has a direct relationship with individual creative performance.

The finding that creative performance is enhanced as procedural justice increases aligns with the tenants of the group-value model. As scholars suggest, “perceptions of procedural fairness are dominated by three types of relational judgments about authorities: standing, neutrality, and trust” (Lee et al., 1999, p. 856). In an effort to meet these requirements, the procedural justice laboratory manipulation was designed to treat the participants with fairness and without bias. As hypothesized, the subjects responded favorably to the fairness of the observed procedures and produced increased levels of creative performance.

The group value model also suggests that fair procedures can be an antecedent to positive work outcomes (e.g., organizational citizenship behavior, organizational commitment) (Lind & Tyler, 1988; Tyler et al., 1996). When fair procedures are perceived individuals may be more motivated to contribute to the group because the procedures are an indication that the authority figure respects and values the individual as well as their contributions (Lind & Tyler, 1988). The motivation to perform as a result of perceived fair procedures is critical when creative performance is desired because one cannot expect to produce creative work without a high level of motivation (Amabile, 1988).

Literature indicates that controlling factors imply that external forces are what determine an individual's level of creative output rather than a competent self-motivated individual (Deci, 1980; Zhou & Shalley, 2003). As a result, individuals tend to be more productive when developmental feedback is perceived as opposed to controlling feedback (Deci & Ryan, 1980; 1987). In this investigation, the feedback provided to the subjects seemed to serve as an encouragement or validation of their work. The evidence suggests that participants perceived that the procedural fairness was informative and developmental (which could enhance their creative work) rather than controlling (which could hinder their creative work). Thus, fairness may have motivated them and increased their level of concentration and focus, which may have positively influenced their creative performance (Amabile, 1988; Deci & Ryan, 1985; Zhou, 1998).

The subjects were also afforded the opportunity to voice their comments. They were then given the indication that their comments would be seriously considered and

possibly implemented in future work (see Appendix C), which provided further positive validation of their contributions. This was vital in manipulating procedural fairness because Folger and Bies state that “when employees express their viewpoints to managers, they expect such views to be examined seriously and thoroughly—for giving consideration to worker viewpoints is at the core of procedural justice in that workers hope to influence the manager” (1989, p. 82).

As discussed, procedural justice was manipulated in the laboratory to determine whether or not a main effect relationship existed between the two variables. As previously described, individuals in the procedural justice condition were also given the amount of extra credit points that their professor promised to them. Though Lind and Tyler suggest that fair procedures may improve self worth regardless of received outcomes (1988), the acquisition of the full distribution of extra credit may have magnified their sense of fairness. Thus, there may have been an increase in their esteem that could have contributed to their increased level of creative output. In fact, scholars state that, “Although procedures are an important source of information in determining one’s status within a group, the actual outcome also provides important information for this purpose. Moreover, equity theorists have also demonstrated the importance of outcomes in people’s perception of their self-worth” (Schroth & Shah, 2000, p. 469). Thus, the fair procedures may have lead to increased creative performance because the individual’s self worth may have been enhanced. Self worth may have improved their creativity because it has demonstrated a positive relationship with individual creativity (Bandura, 1997; Tierney & Farmer, 2002).

Lastly, uncertainty accompanies the production of individual creative output, which is an outcome that cannot be guaranteed (Amabile, 1988; Zhou & George, 2003). However, even though there is uncertainty in producing creative work, it seems as if the subjects were able to take solace in the cues that procedural justice provided. Though they could not be certain that they would produce creative work, because their initial task was evaluated with procedural justice, it seems that they inferred that they could trust that their creative output would be evaluated in a similar (procedurally fair) manner. The uncertainty related to creative work, which may be unsettling or distracting for some, may have been reduced or made easier to manage when fairness was perceived. In fact, Lind and Van den Bos state that there is an important relationship between fairness and uncertainty suggesting that fairness “helps people cope with the uncertainty that arises from the external business environment” (2002, p. 216). Thus, as uncertainty was reduced, due to perceived procedural fairness, their efforts to produce creative work may have flourished.

Findings Related to Distributive Justice

The findings related to distributive justice as a moderator between openness to experience and individual creativity are consistent with the reasoning presented for hypothesis 6a. The data demonstrates that individuals who are high on openness to experience generate a high level of creative performance when they perceive distributive justice. Individuals who are high on openness to experience are considered to be highly imaginative, open to new ideas, independent thinkers, and tend to take pleasure in

uniqueness (Costa & McCrae, 1992; James & Mazerolle, 2002). The findings support the notion that as individuals who are high on openness perceive that they work in an environment that tends to distribute rewards justly they are better able to capitalize on the aspects of their personality that are positively related to individual creativity. An explanation may reside in the notion that fair allocations provide encouraging input suggesting that the individual's work outcomes are valuable (Eisenberger, 1992; Eisenberger & Selbst, 1994).

The findings suggest that fair rewards seem to function as constructive information indicating that the individual has produced useful work. These results are particularly beneficial because researchers have found that the perception of reward distribution produce varied results (sometimes being positively related to individual creativity and other times being negatively related to individual creativity) with regard to creative performance (Shalley et al., 2004). Thus, these findings provide support for one of the two viewpoints that have been espoused that relate to the allocation of rewards and creativity - the viewpoint espoused by Eisenberger and colleagues stating that rewards may have a positive association with individual creative performance (Eisenberger, 1992; Eisenberger & Selbst, 1994).

Amabile and colleagues suggests that individuals produce lower levels of creativity when they believe that their rewards are dependent on their creative performance (1979). The literature suggests that the reward functions as a constraint when individuals believe that the reward is contingent upon their creative output because it negatively influences their intrinsic motivation, essentially stating that the rewards act

as a distraction (even if the rewards are considered to be fair) (Amabile, 1979; Amabile et al., 1986; Deci & Ryan, 1980). On the other hand, some researchers suggest that rewards are positively related to originality because rewards can provide helpful information about the individual's outputs as well as provide a positive message about the individual's skill sets, which may encourage creativity (Eisenberger, 1992; Eisenberger & Armeli, 1997).

Therefore, the findings of this study help to clarify how distributions influence creative behavior. More specifically, when individuals have a personality with creative potential (i.e., openness to experience) and they perceive that they work with an organization that allocates fairly, the rewards are interpreted as a positive message that positively influences their potential to creatively perform. In this context, the distribution of rewards did not function as a distraction, but as important information about their performance. It would seem as though the fair rewards functioned as developmental feedback that helped to encourage creative work, rather than functioning as a constraint that stifled creative output.

Individuals may have produced lower creative work when distributive injustice was perceived, because unfair outcomes may have been perceived as a distraction. The distraction of unfair rewards has been thought to negatively influence an individual's ability to focus on the creative task (Amabile, 1979). When individuals perceived distributive injustice (i.e., the loss of half of their promised reward) they may make efforts to rectify (balance their inputs and outputs) the situation. The focus on rectifying the perceived inequity may have drained the individual's focus from the creativity task

toward contemplating how they might restore the balance between their inputs (e.g., participation in the laboratory investigation) and outputs (e.g., extra credit points received) (Adams, 1965); thus, not allowing their creative output to substantially flourish. This further supports the notion that individuals who are high on openness to experience have high creative potential, but the proper context must be present to allow creativity to be produced (George & Zhou, 2001; Martindale, 1989; Shalley et al., 2004).

The perception that rewards will be fair may also enhance creative work because individuals may believe that the resources will be available to pursue their creative work. As Amabile's model asserts there are three components to the creative model: domain relevant skills, creativity relevant skills, and motivation (1988). Although just rewards do not equate with adequate rewards, the fair rewards might provide an indication that the required resources to maintain or enhance domain skills will be available. For example, literature indicates that training may help individuals be more productive. In an organizational setting, fair rewards may come in the form of training, which could enhance their skill level (domain relevant skills) resulting in increased creative performance (Amabile, 1988; Basudur et al., 1990).

Personality and Creative Performance Correlations

It is interesting to note that the two personality variables demonstrated a significant correlation relationship with creative performance: openness to experience ($r = .175, p < .01$) and creative personality ($r = .164, p < .05$). It is important to note that the findings of this investigation also support the notion that though openness to

experience and creative personality are highly correlated ($r = .391, p < .01$) they are meaningfully and theoretically distinct. For example, the relationship between openness to experience and individual creativity was moderated by certain justice perceptions (distributive justice), while no such significant relationship was found for those who are high in creative personality.

Personality traits do not solely or directly cause or impede creative performance. However, the findings demonstrate that under certain circumstances (perceived distributive justice) individuals who are high on openness to experience do produce greater levels of creative performance, while this was not the case for individuals who were high on creative personality. Thus, individuals who were high in openness to experience and creative personality may have both had creative potential, regardless of whether or not they perceived justice or injustice; however, it may be that those high on creative personality may have chosen not to produce creative work due to some unknown factor that should be explored (Shalley et al., 2004).

In addition, because the measure of creative personality had a low Cronbach alpha ($\alpha = .56$) additional work was done to improve the reliability of this measure. To improve the Cronbach alpha for the Creativity Personality Scale, two of the 18 adjectives that describe highly creative people were dropped: informal and snobbish. Three of the twelve adjectives that are thought to describe less creative people were also dropped: dissatisfied, interest narrow, and suspicious. The elimination of these adjectives generated the optimal scale for this set of data ($\alpha = .67$). After generating this modified scale, the regressions for the justice (i.e., distributive, procedural, interactional)

conditions were run again. The higher Cronbach alpha for the Creative Personality Scale did not generate any additional significance. Thus, further analysis should be conducted to determine under what circumstance justice or injustice may interact with creative personality to impact individual creativity.

Overall Findings

Previous research failed to provide any substantial experimental support for how the different factors of organizational justice may or may not individually have a relationship with individual creative performance. This investigation is the first to provide such empirical evidence. Although the supported findings were limited, the emerged relationships between the facets of organizational justice and individual creativity should not be dismissed. Most apparently, it is evident that procedural justice plays an important role with individual creativity. Distributive justice also seems to have a role in the relationship between personality and creative performance that should also not be overlooked.

Unfortunately, the results indicate no significant results as related to interactional justice. Contrary to expectations, perceptions of high or low interpersonal justice did not have a significant moderating relationship with variables known to precede creative performance and individual creativity. One possible explanation could be that the one time interaction with the temporary authority figure (i.e., experimenter) may not have been enough to elicit a significant response. The strong desire to obtain the additional points for their course may have caused these individuals to be motivated by self-interest

and only concerned with obtaining their reward (i.e., extra credit) without regard to how they were treated (e.g., interactional justice). It seems that distributive justice and procedural justice are more closely related to outcomes (Folger & Cropanzano, 1998), which in this case are extra credit points (i.e., student's primary purpose for participating). Thus, it may be more likely that participants would be more sensitive to issues related to these two contextual constructs, which would explain why there was no significance related to interactional justice.

Practical Implications

The findings of this investigation have implications for organizations as related to coveted creative output and perceived organizational justice. If creative output is an important organizational goal, the findings of this study suggest that just reward distributions (e.g., compensation packages) should be closely evaluated to ensure fairness. The lack of just allocations could negatively influence individuals (e.g., those high in openness to experience) who have a propensity to produce creative output. Organizations should also look to ensure that salaries are just as well as seek to ensure fairness as related to benefits, training, vacations and other forms of distributions within organizations. By doing so, the company would be making efforts to provide a context that indicates employees will be treated fairly with regard to allocations. The perception that the organization adheres to fair behavioral norms and values could positively influence those who have creative potential and positively impact their creative performance.

The findings also suggest that organizations should be concerned with procedures and processes that management utilizes to make decisions about outcomes for their employees. For example, from a human resource management perspective it may be important to ensure that performance appraisals are perceived to have a high level of procedural justice. Because all employees, in general, receive periodic performance appraisals it is an opportunity to ensure that employees perceive fairness; thus, it would be critical that employees perceive a low level of bias, believe that the methods of the evaluation are consistent, and observe that the appraisals are based on accurate information and so on.

Procedural fairness issues also remain prevalent because of the sophistication of technology systems utilized in organizations. For instance, contemporary human resource benefit systems are often complex making it difficult for employees to ascertain the procedures and processes that have been utilized to determine their coverage and rewards (e.g., health benefits). In efforts to help employees perceive fairness organizations may want to make strong efforts to ensure that processes employed to determine distributions clearly follow the six attributes that are commonly utilized to assess the fairness of procedures. For example, in addition to providing comprehensive human resource presentations that explain the health care benefits given to employees, organizations may want to walk through how the benefits are being applied consistently, without bias, and objectively. Overall, procedures should be evaluated since these findings indicate that procedural justice plays a role in whether or not employees produce creative work.

Limitations

This investigation was conducted in a laboratory setting, which contrived an artificial environment in order to test the proposed hypotheses. Due to the lack of external validity associated with this type of investigation, this methodological approach is considered a limitation. However, there are key benefits associated with this area of study (i.e., creative performance) and a laboratory experiment. First, laboratory investigations allow the experimenter to better influence constructs that are being analyzed while controlling for factors that are not important to the investigation. Second, laboratory investigations have a greater propensity to determine causality (e.g., the effect of the independent variable on the dependent variable) and are thought to have a higher level of internal validity as opposed to a field study. Third, laboratory investigations allow the researcher to separate varied constructs (e.g., distributive, procedural, and interactional justice) (Kerlinger & Lee, 2000; Zhou & Shalley, 2003). For example, I controlled for gender because it was not a focus of this investigation yet the correlation table suggests that it had a significant relationship with many of the variables (i.e., intrinsic motivation, risk seeking, openness to experience, self-efficacy, and creative performance).

Due to the relative infancy of creativity research, as compared to other areas of study in organizational behavior, the benefits associated with a laboratory investigation are appealing for research conducted on issues related to creative performance (Zhou & Shalley, 2003). This point is further substantiated because previous work has failed to

provide empirical evidence for a relationship between organizational justice factors (i.e., distributive, procedural, and interactional justice) and creative performance. Laboratory studies, such as this one, have strong internal validity and are helpful to determine whether or not it is worth spending precious time and resources pursuing this area of research in a potentially more complicated and expensive field setting (Kerlinger & Lee, 2000; Zhou & Shalley, 2003).

Another limitation of this investigation is related to outcome favorability. As stated, distributive justice is related to when an individual has their reward expectations met (Folger & Cropanzano, 1998). While outcome favorability speaks to when an individual profits from their outcomes and believes that the outcomes are legitimate (Brockner et al., 2003; Gilliland & Chan, 2001). In five of the six justice conditions, subjects were given the maximum number of extra credit points that were offered by their professor. It may be that this aspect of the manipulation could be interpreted as a representation of outcome favorability rather than distributive justice. Thus, in future investigations a higher standard of precision and exactness would need to be utilized in order to properly tease out the differences between these two similar constructs and provide insight on how they might relate to creative performance.

Lastly, this study was also limited because the study was short term and only had two points of data collection. More variance could have been captured if information had been gathered in a longer term investigation. In addition, because the subjects were students the investigation could not instigate a severe level of unfairness (e.g., termination practices toward qualified individuals because of sexism) which may have

generated greater variance in participant responses. Thus, the contrived laboratory setting may have been too weak to solicit significant varied responses from the subjects. In sum, although this study was designed to concisely determine the influence of different justice conditions on the relationship between individuals who are creatively inclined and creative performance, the manipulations may have been too brief and weak to allow for the observation of the differences that may really exist with regard to their interaction with distributive, procedural, or interactional justice.

Future Direction

Due to the limitations associated with this laboratory investigation it seems that there is a lot to be gained from future research on creativity and justice in a field setting. Fortunately, results from this study provide confidence that a field study would be worth pursuing. Even though the investigation was conducted in a contrived context (i.e., laboratory investigation), significant relationships were observed. However, due to reasons explained above the laboratory context may not have allowed for the full presentation of the possible interactions among the studied variables and a field investigation would help remedy this drawback (Kerlinger & Lee, 2000).

Alternatively, researchers may want to take an additional step with regard to justice and creativity research and investigate the united effects of two or more different factors of justice on individual creativity. Though it is possible for an employee to encounter one form of unfairness in isolation (e.g., distributive injustice), it is also plausible that an employee might concurrently perceive more than one justice infraction

(e.g., procedural and distributive injustice). If this is the case, it would be interesting to investigate how this perception may or may not influence their creative performance. Because investigations that involve both justice concerns and individual creativity are in their infancy stage, it may be best to conduct this type of investigation in the laboratory, where conditions can be tightly controlled, and then move to investigate the impact of this phenomenon in a field setting (Zhou & Shalley, 2003).

Researchers have suggested that work should be done to discover under what other conditions individuals choose to or choose not to be creative within an organizational setting (Shalley et al., 2004). Considering that some of these findings suggest that those who are generally known to be creatively productive did not produce significant levels of creativity, it would seem that some individuals may have had the ability to be creative, but for some reason chose not to pursue a high level of creative output. This area of study would benefit if additional investigations helped to determine under what other circumstances some individuals would volitionally choose to withhold creative output when dealing with different perceptions of justice or injustice.

In addition, it would seem that a longitudinal study or a lengthier one time investigation would provide a better context for observing how the three different factors of justice may interact with individual differences that are known to precede individual creativity. Lastly, it might prove beneficial to conduct a laboratory investigation where individuals experience injustice first and then determine whether or not perceived justice enhances creativity outcomes. An encounter with perceived injustice might cause

individuals to have a higher appreciation for just treatment; thus potentially increasing their individual output (i.e., creativity).

Conclusion

Even though the majority of the hypotheses are not supported, this research demonstrates that factors of organizational justice have a role in determining whether or not an individual will produce creative work. Because of the potential benefits of individual creativity, investigations have been conducted to determine how individual and contextual factors might improve or inhibit creative performance (see Shalley et al., 2004). However, this investigation is the first to provide empirical evidence that additional contextual factors (e.g., distributive justice) have a relationship with antecedents to individual creative performance; thereby, individual creativity. Hopefully, this investigation will help facilitate further work on this vital, but neglected area of study.

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APPENDIX A
INVESTIGATION MEASURES

Independent Variables

Intrinsic Motivation – Completed by participants during Phase I.

1. I enjoy finding solutions to complex scenarios.
2. I enjoy coming up with new ideas.
3. I enjoy engaging in analytical thinking.
4. I enjoy creating new procedures for work tasks.
5. I enjoy improving existing processes or products.

(Tierney et al., 1999)

Openness to experience – Completed by participants during Phase I.

1. I don't like to waste my time daydreaming. *
2. Once I find the right way to do something, I stick to it. *
3. I am intrigued by the patterns I find in art and nature.
4. I believe letting students hear controversial speakers can only confuse and mislead them.*
5. Poetry has little or no effect on me.*
6. I often try new and foreign foods.
7. I seldom notice the moods or feelings that different environments produce.*
8. I believe we should look to our religious authorities for decisions on moral issues.
9. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.
10. I have little interest in speculating on the nature of the universe or the human condition.*
11. I have a lot of intellectual curiosity.
12. I often enjoy playing with theories or abstract ideas.

*Reversed Items

(Costa & McCrae, 1992).

Creative Personality – Completed by participants during Phase I.

_____ phony	_____ intelligent
_____ capable	_____ interests narrow
_____ cautious	_____ interests wide
_____ clever	_____ inventive
_____ commonplace	_____ mannerly
_____ confident	_____ original
_____ conservative	_____ reflective
_____ conventional	_____ resourceful
_____ dissatisfied	_____ self-confident
_____ egotistical	_____ sexy
_____ honest	_____ sincere
_____ humorous	_____ snobbish
_____ individualistic	_____ submissive
_____ informal	_____ suspicious
_____ insightful	_____ unconventional

(Gough, 1979)

Risk Propensity – Completed by participants during Phase I.

Enjoy being reckless.

Take risks.

Seek danger.

Know how to get around the rules.

Am willing to try anything once.

Seek adventure.

Would never go hang-gliding or bungee-jumping.*

Would never make a high risk investment.*

Stick to the rules.*

Avoid dangerous situations.*

* Reversed Items

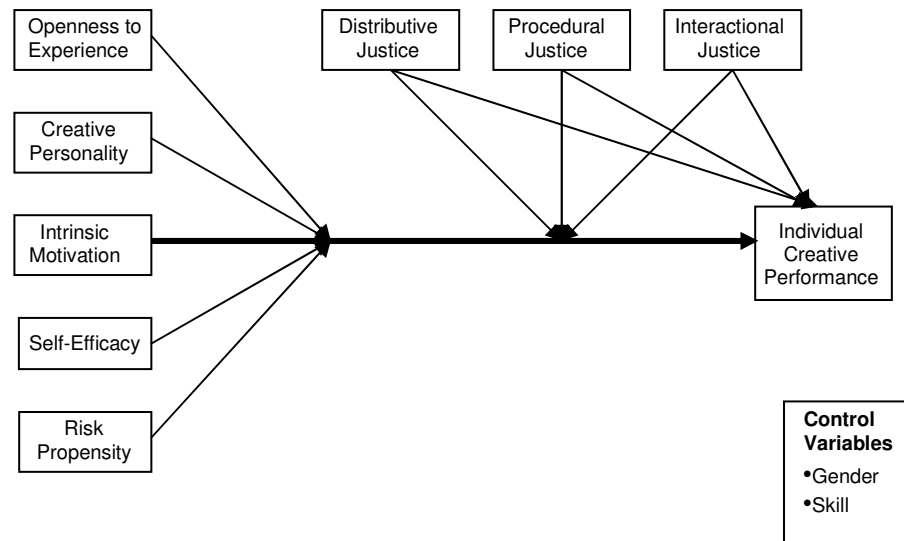
(Jackson, 1976)

Self-efficacy – Completed by participants during Phase I.

- 1 I will be able to achieve most of the goals that I have set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.

(Chen et al., 2001)

APPENDIX B
CONCEPTUAL MODEL



Conceptual Model

APPENDIX C
PROCEDURAL JUSTICE MANIPULATION

Evaluating Your Performance on this Task

This document is to inform you about the manner in which your performance on the anagram task will be assessed. This information is important because the extra credit points that you receive will be based on the assessment of your performance on this task. Please read it carefully.

- I reviewed and graded all of the items that you identified on this task.
- Your work was judged using consistent criteria.
- The criteria that was used to assess your work was objective. Thus, all of your work was reviewed without bias.
- You will be able to appeal the assessment of your work at the end of this session.

Please Note: We want to know how this task could have been better presented. Please write down any comments or suggestions on the sheet that has been provided. You will have additional time at the end of the session to document any of your ideas or methods for improvement. Your comments/suggestions will be thoroughly reviewed by myself and my research team. We look forward to implementing your suggestions.

Evaluating Your Performance on this Task

This document is to inform you about the manner in which your performance on the anagram task will be assessed. This information is important because the extra credit points that you receive will be based on the assessment of your performance on this task.

Please read it carefully.

- Your work was not judged using consistent criteria.
- The criteria that was used to assess your work was subjective.
- The criteria used may vary from one participant to another. Thus, it is possible that there might have been some bias in the assessment of your work.
- You will not be able to appeal the assessment of your work at the end of this session.

APPENDIX D
REGRESSION MODELS FOR NON SUPPORTED HYPOTHESES

Table 5
Regression of Main Effect of Distributive Justice and Individual Creativity
(Hypothesis 1 Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154*	.087*	
	Skill	.248		
2	Gender	-.150*	.096	.009
	Skill	.228		
	Distributive Justice (DJ)	-.085		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 6
Regression of Main Effect of Interactional Justice and Individual Creativity
(Hypothesis 3 Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.249*	.082	.000
	Skill	.049		
	Interactional Justice (IJ)	.012		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 7
Regression of Interaction Between Distributive Justice and Intrinsic Motivation on Individual Creativity (Hypothesis 4a Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154	.087*	
	Skill	.248*		
2	Gender	-.168†	.120	.033
	Skill	.173		
3	Distributive Justice (DJ)	-.072	.120	.000
	Intrinsic Motivation (IM)	.114		
	Gender	-.168†		
	Skill	.170		
	Distributive Justice (DJ)	-.073		
	Intrinsic Motivation (IM)	.103		
	(DJ) x (IM)	.019		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 8
Regression of Interaction Between Distributive Justice and Risk Propensity on Individual Creativity (Hypothesis 7a Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154	.087*	
	Skill	.248*		
2	Gender	-.230*	.162*	.075*
	Skill	.227*		
3	Distributive Justice (DJ)	-.032	.184	.023
	Risk Propensity (RP)	.185*		
	Gender	-.209*		
	Skill	.211†		
	Distributive Justice (DJ)	-.043		
	Risk Propensity (RP)	.077		
	(DJ) x (RP)	.208		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 9
Regression of Interaction Between Distributive Justice and Self Efficacy on Individual Creativity (Hypothesis 8a Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154	.087*	
	Skill	.248*		
2	Gender	-.197*	.142	.055
	Skill	.188		
	Distributive Justice (DJ)	-.109		
	Self Efficacy (SE)	.179*		
3	Gender	-.206*	.148	.006
	Skill	.207†		
	Distributive Justice (DJ)	-.106		
	Self Efficacy (SE)	.248†		
	(DJ) x (SE)	-.126		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 10
Regression of Interaction Between Distributive Justice and Creative Personality on Individual Creativity (Hypothesis 5a Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.154	.087*	
	Skill	.248*		
2	Gender	-.173†	.126	.039
	Skill	.206†		
	Distributive Justice (DJ)	-.082		
	Creative Personality (CP)	.022		
3	Gender	-.173†	.126	.000
	Skill	.207†		
	Distributive Justice (DJ)	-.080		
	Creative Personality (CP)	.022		
	(DJ) x (CP)	.000		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 11
Regression of Interaction Between Procedural Justice and Intrinsic Motivation on Individual Creativity (Hypothesis 4b Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.111	.109	.063
	Skill	.135		
	Procedural Justice (PJ)	.188		
	Intrinsic Motivation (IM)	.048		
3	Gender	-.089	.116	.006
	Skill	.128		
	Procedural Justice (PJ)	.214 [†]		
	Intrinsic Motivation (IM)	.108		
	(PJ) x (IM)	-.130		

* $p \leq .05$

** $p < .01$

[†] $p < .10$

Table 12
Regression of Interaction Between Procedural Justice and Risk Propensity on Individual Creativity (Hypothesis 7b Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.194	.131	.085
	Skill	.168		
	Procedural Justice (PJ)	.160		
	Risk Propensity (RP)	.130		
3	Gender	-.191	.133	.001
	Skill	.162		
	Procedural Justice (PJ)	.167		
	Risk Propensity (RP)	.161		
	(PJ) x (RP)	-.053		

* $p \leq .05$

** $p < .01$

[†] $p < .10$

Table 13
Regression of Interaction Between Procedural Justice and Self Efficacy on Individual Creativity (Hypothesis 8b Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.052	.109	.062
	Skill	.116		
3	Procedural Justice (PJ)	.219 [†]		
	Self Efficacy (SE)	-.063		
	Gender	-.035	.115	.007
	Skill	.140		
	Procedural Justice (PJ)	.237 [†]		
	Self Efficacy (SE)	.024		
	(PJ) x (SE)	-.153		

* $p \leq .05$

** $p < .01$

[†] $p < .10$

Table 14
Regression of Interaction Between Procedural Justice and Creative Personality on Individual Creativity (Hypothesis 5b Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.112	.112	.066
	Skill	.152		
3	Procedural Justice (PJ)	.185		
	Creative Personality (CP)	.014		
	Gender	-.104	.121	.009
	Skill	.141		
	Procedural Justice (PJ)	-.050		
	Creative Personality (CP)	-.009		
	(PJ) x (CP)	.033		

* $p \leq .05$

** $p < .01$

[†] $p < .10$

Table 15
Regression of Interaction Between Procedural Justice and Openness to Experience on Individual Creativity (Hypothesis 6b Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.151	.046	
	Skill	.138		
2	Gender	-.088	.140	.094
	Skill	.125		
	Procedural Justice (PJ)	.168		
3	Openness to Experience (OE)	.158	.160	.020
	Gender	-.088		
	Skill	.123		
	Procedural Justice (PJ)	.188		
	Openness to Experience (OE)	.299		
	(PJ) x (OE)	-.244		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 16
Regression of Interaction Between Interactional Justice and Intrinsic Motivation on Individual Creativity (Hypothesis 4c Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.247*	.082	.000
	Skill	.051		
	Interactional Justice (IJ)	.012		
3	Intrinsic Motivation (IM)	-.006	.097	.015
	Gender	-.242*		
	Skill	.047		
	Interactional Justice (IJ)	.034		
	Intrinsic Motivation (IM)	-.068		
	(IJ) x (IM)	.168		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 17
Regression of Interaction Between Interactional Justice and Risk Propensity on Individual Creativity (Hypothesis 7c Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.244*	.083	.001
	Skill	.047		
3	Interactional Justice (IJ)	.005		
	Risk Propensity (RP)	-.025		
	Gender	-.237*	.085	.001
	Skill	.052		
	Interactional Justice (IJ)	.001		
	Risk Propensity (RP)	.014		
	(IJ) x (RP)	-.066		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 18
Regression of Interaction Between Interactional Justice and Self Efficacy on Individual Creativity (Hypothesis 8c Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.256*	.086	.004
	Skill	.045		
3	Interactional Justice (IJ)	.008		
	Self Efficacy (SE)	-.061		
	Gender	-.263*	.097	.011
	Skill	.042		
	Interactional Justice (IJ)	-.005		
	Self Efficacy (SE)	.081		
	(IJ) x (SE)	-.220		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 19
Regression of Interaction Between Interactional Justice and Creative Personality on Individual Creativity (Hypothesis 5c Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.243*	.100	.018
	Skill	.035		
3	Interactional Justice (IJ)	.005		
	Creative Personality (CP)	.019		
	Gender	-.237*	.113	.013
	Skill	.019		
	Interactional Justice (IJ)	.184		
	Creative Personality (CP)	.038†		
	(IJ) x (CP)	-.033		

* $p \leq .05$

** $p < .01$

† $p < .10$

Table 20
Regression of Interaction Between Interactional Justice and Openness to Experience on Individual Creativity (Hypothesis 6c Not Supported)

Step	Variables	β	R^2	ΔR^2
1	Gender	-.250*	.082	
	Skill	.049		
2	Gender	-.245*	.084	.002
	Skill	.041		
3	Interactional Justice (IJ)	.010		
	Openness to Experience (OE)	.034		
	Gender	-.243*	.087	.003
	Skill	.043		
	Interactional Justice (IJ)	.045		
	Openness to Experience (OE)	-.023		
	(IJ) x (OE)	.095		

* $p \leq .05$

** $p < .01$

† $p < .10$

VITA

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EDUCATION

09/02 - 12/06 Ph.D., Organizational Behavior, Texas A&M University
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CONFERENCE PRESENTATIONS

Umphress, E.E., Boswell, W.R., Simmons, A.L., & Triana, M. (2006). Managing discrimination in selection: The impact of accountability and social dominance orientation. To be presented at the Annual Meeting of the Academy of Management, Atlanta, Georgia.

Simmons, A.L., Triana, M., & Boswell, W.R. (2005). Selection, obedience, and social dominance orientation: Complexities of pursuing a diverse workforce. Poster presented at the Annual Meeting of the Academy of Management, Honolulu, Hawaii.

Umphress, E.E., See, K.E., Barsky, A., Gogus, C.I., Ren, R., & Simmons, A.L. (2005). Be Careful What You Wish For: Goals Influencing Ethical Behavior in Organizations. Presented at the Annual Meeting of the Academy of Management, Honolulu, Hawaii.

Simmons, A.L. & Ren, R. (2004). Risk propensity and creative performance. Poster presented at the Annual Meeting of the Academy of Management Conference, New Orleans, Louisiana.

Porter, C.O.L.H., Gogus, C., Simmons, A.L., & Yu, R. (2004). The role of goal orientation in the management of goal-performance discrepancies in teams. Poster presented at the Annual Meeting of the Academy of Management Conference, New Orleans, Louisiana.

AWARDS

Mays Business School Tuition Scholarship - 2003, 2004
Regents' Fellowship Award - 2002, 2003, 2004
Mays Business School Deans Dissertation Grant - 2005
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PROFESSIONAL AFFILIATIONS AND ACTIVITIES

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KPMG PhD Project, Academy of Management, Society for Industrial and Organizational Psychology

Reviewer for the Annual Meeting of Academy of Management - 2004, 2005, 2006

Reviewer for the Southern Management Association - 2006