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ORGANIZATIONAL JUSTICE AND WORKPLACE DEVIANCE: THE ROLE OF ORGANIZATIONAL STRUCTURE, POWERLESSNESS, AND INFORMATION SALIENCE

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Management in the College of Business Administration at the University of Central Florida

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ABSTRACT

The purpose of this study is to investigate both individual and structural factors in predicting workplace deviance. Deviant workplace behavior is a prevailing and costly phenomenon in organizations. It includes a wide range of negative acts conducted by employees to harm the organization and its members. In the first section, I conducted a comprehensive literature review. In the review, I first review the current state of research on the relationship between organizational justice and workplace deviance by presenting the various theoretical frameworks, as well as empirical findings. Next, I summarize existing research patterns and identify research challenges that must be overcome in order to advance our understanding of this topic. Finally, I offer future directions researchers should undertake in justice-deviance research. Specifically, I suggest the development of more comprehensive models that include potential moderators and mediators that may better explain how and why justice judgments can lead to deviant behaviors and when the negative effect is most damaging. In the second section, I developed a theoretical model that proposes the relationship between organizational justice, organizational structure (centralization and organicity), employee perceived powerlessness, information salience about each type of justice, and workplace deviance. In the third section, I tested the model and presented the findings. Results of HLM analysis show that (1) organizational justice, perceived powerlessness, and centralization exert direct effects on workplace deviance, (2) organicity exerts direct effects on justice information salience; (3) perceived powerlessness partially mediates the relationship between centralization and organizational deviance; (4) information salience of procedural justice strengthens the effects of

procedural justice on interpersonal deviance. Conclusions are drawn from the theory and findings, highlighting implications for future workplace deviance and organizational behavior research.

KEYWORDS: organizational justice, workplace deviance, organizational structure, powerlessness, information salience

Dedicated with love to my husband Michael, and our children Alexis and Benjamin.

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CHAPTER ONE: ORGANIZATIONAL JUSTICE AND WORKPLACE DEVIANT BEHAVIORS: A REVIEW

Abstract

Workplace deviant behavior is a prevailing and costly phenomenon. It includes a wide range of negative acts conducted by employees to harm the organization and its members. Research indicates that organizational justice is a dominant predictor of workplace deviant behavior. Specifically, the justice perspective proposes that workplace deviance is a reaction to the unfairness perceived by employees in their organizational life. A rich body of research has investigated the relationship between employees' fairness perceptions and various forms of workplace deviance behaviors. Yet, to date, a comprehensive review of the literature is unavailable that summarizes and integrates this stream of research. In this paper, I seek to fill this gap. First, I review the current state of research as to the relationship between justice and deviance by presenting the various theoretical frameworks, as well as empirical findings. Next, I summarize existing research patterns and identify research challenges that must be overcome in order to advance our understanding of this topic. Finally, I offer future directions researchers should undertake in justice-deviance research. Specifically, I suggest the development of more comprehensive models that include potential moderators and mediators that may better explain how and why justice judgments can lead to deviant behaviors and when the negative effect is most damaging.

Introduction

Decades of organizational justice research show that fairness perceptions can substantially contribute to various attitudinal, cognitive, emotional, and behavioral outcomes among organizational members. A rich body of research, both theoretical and empirical, demonstrates that deviant workplace behaviors can be a reaction to the unfairness perceived by employees in their work life. When employees feel that they are treated unfairly, they tend to experience feelings of anger, outrage, frustration, and a desire for retribution (Bies & Tripp, 1996; Greenberg, 1990). Under certain circumstances, these negative feelings can manifest into deviant behaviors (Robinson & Bennett, 1995).

Workplace deviant behavior entails a constellation of employee behaviors that deviate from organizational norms espoused by the dominant administrative coalition (Robinson & Bennett, 1997). Such behaviors are counterproductive or destructive to organizational effectiveness. To date, our understanding of employee deviance includes a wide range of negative behaviors including subtle expressions of rebellion, such as gossiping and taking unapproved breaks, to more destructive actions, such as aggression and violence (Bennett & Robinson, 2003). As the dark side of organizational behavior, workplace deviance is one of the most serious problems facing organizations today (See Bennett & Robinson [2003] for a review). To address this issue, researchers have identified a multitude of factors that contribute to employee deviance. Among those, research shows that organizational justice/injustice plays a significant role in predicting employee deviance.

The purpose of this article is to review and integrate the research on the relationship between organizational justice and workplace deviant behaviors in the current literature. In conducting this review, I searched academic online databases PsychINFO and ABI/INFORM.

Considering that workplace deviance is a relatively new domain in management studies, and that a comprehensive review on the relationship between organizational justice and deviance has yet to be published, I did not specify any limit on the time period in the searches. I also reviewed major journals in the field, including *Academy of Management Journal, Journal of Applied Psychology, Organizational Behavior and Human Decisions Process, Journal of Management, Journal of Organizational Behavior,* and *Personal Psychology*, in order to identify the trends and coverage in the mainstream research outlets for the topic under review. These overlapping searches should provide comprehensive coverage of the justice and deviance literature.

Considering the wide scope of behaviors that fall under the employee deviance domain, I used the combination of keywords "organizational justice or fairness" and "workplace justice or fairness" with 32 keywords (see table 2) that describe the various forms of deviant behavior found in the literature (from Absenteeism to Withdrawal). A total of 305 partially overlapped abstracts were identified. After reviewing the abstracts of all possible leads identified by the searches, I limit my review to *published empirical* studies that (a) have included measures of any or all type(s) of organizational justice and deviant outcomes, (b) have used samples from normal, adult populations, and (c) assess variables that have clear implications for organizations. After applying these guidelines, the resulting sample consisted of 29 studies conducted from 1993 to 2006. Table 1 summarizes these studies.

In the following text, I first introduce theories and conceptualizations that propose the relationship between justice and deviance. In terms of organizational justice, the literature emphasizes the multidimensionality of the justice construct. That is, each justice component (distributive, procedural, and interactional) can contribute to the variance in deviant outcomes together or separately. In addition, justice components also interact to predict deviance. In terms of the concept of workplace deviance, the emphasis is the diversity of the forms of deviant behaviors. Deviant outcome variables range from specific forms, such as sabotage and theft, to aggregated forms that are termed as workplace deviance or withdrawal. Empirical studies show that the effect of organizational justice on deviant work behaviors can take place either: 1) directly, 2) moderated by other variables, or 3) mediated by other variables. Therefore, I will organize the review of empirical studies based on these three research frameworks. First, I will review studies that investigate the main effects of organizational justice on various forms of workplace deviant behaviors. Second, I will review studies that include moderators and/or mediators in the research models. Based on the review, I conclude with what we currently know about the relationship between justice and deviance. The final section of the article suggests a number of new directions for future research.

Background

Workplace Deviant Behaviors

Research in Workplace Deviant Behavior (WDB) is said to be the "latecomers to the discipline of organizational behavior. Once these phenomena were recognized, though, research proceeded quite rapidly" (O'Leary-Kelly & Griffin, 2004: 462-463). During the last twenty

years, numerous journal articles and book chapters have presented different models and approaches that conceptualize a wide array of deviant behavior as well as identify its causes and consequences (Bennett & Robinson, 2003; Neuman & Baron, 1998; Robinson & Bennett, 1997; Robinson & Greenberg, 1998).

One unique characteristic of deviant work behavior research is the wide diversity of the behavioral conducts, and the associated definitions and operationalizations of these conducts. Each deviant conduct differs in scope and form and yet shares similar characteristics, antecedents, and consequences. Robinson and Greenberg (1998) identified six categories of negative work behaviors based on previous research. The categories they identified include workplace deviance, antisocial behavior, organizational aggression, retaliatory behavior, organizational misbehavior, and organization-motivated aggression. Other labels of workplace deviance include workplace violence, sabotage, vandalism, revenge, destruction, dishonesty, incivility, employee theft, absenteeism, and withdrawal (see Robinson & Greenberg [1998] for a review). Each of these can be matched to the categories outlined by Robinson and Greenberg (1998).

As research interest in employee deviance behaviors grows, a number of literature review articles and meta analyses studies have emerged to document research on workplace deviance regarding its conceptualization and operationalization, antecedents and consequences, and empirical findings (Bennett & Robinson, 2003; Berry, Ones, & Sackett, 2007; Griffin & Lopez, 2005; Hershcovis, Turner, Barling, Arnold, Dupre´, Inness, LeBlanc, & Sivanathan, 2007; Robinson & Bennett, 1997; Robinson & Greenberg, 1998). The focus of my review will be on

the relationship between organizational justice and various forms of work-related deviant behaviors.

Because prior research has examined deviance using numerous terms, this review will incorporate a broad spectrum of such terms. Specific forms of deviant behaviors in the workplace include absenteeism, abusive supervision, incivility, legal claim, negative creativity, sabotage, sexual harassment, theft, and vandalism. Aggregate forms of deviant behaviors include aggression and violence, counterproductive/counterwork behavior, workplace deviance, retaliation, revenge, and withdrawal.

Organizational Justice

Organizational justice refers to employees' perceptions of fairness in the workplace. The conceptualization of the justice construct has evolved over four decades of study. Although current justice theories and models differ in the elements they emphasize, justice researchers acknowledge that individuals evaluate organizational fairness based primarily on three components: outcomes, processes, and interpersonal interactions.

Justice research originally began with an interest in the fairness of the outcome referred to as distributive justice (Adams, 1963). Perceptions of distributive justice result from situations where individuals form a judgment of an unfair outcome (e.g., lack of pay raise, promotions, or opportunities for training). It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963). Greenberg (1996) defined equity restoration as an attempt to increase the level of reward in order to compensate for an outcome that was deserved but not received. Research on distributive justice has primarily focused on the

effect of outcome fairness on individuals' responses. Later, scholars extended the justice construct by conducting extensive research on procedural justice. Procedural justice represents the process aspect of justice, and concerns individual's perceptions of the fairness of formal procedures governing decisions. The third type of justice, interactional justice (Bies & Moag, 1986), focuses on the quality of the interpersonal treatment people receive during the implementation of procedures and outcomes. More recently, Greenberg (1990, 1993a) distinguishes between the structural and social sides of interactional justice. *Interpersonal justice* represents the social side, specifically, the social sensitivity (e.g., politeness, dignity, and respect) rendered by authorities. *Informational* justice represents the structural side and reflects the extent to which decision makers explain and provide adequate justification for their decisions (Greenberg, 1993a). A Meta-analysis conducted by Cohen-Charash and Spector (2001) validated a three-dimensional (distributive, procedural, and interactional) justice construct with interactional justice as a third component of the justice construct. A Meta-analysis conducted by Colquitt, Conlon, Wesson, Porter, and Ng (2001) validated the distinction of distributive, procedural, and interactional justice, as well as the distinction of interpersonal and informational aspects of interactional justice. So far, researchers have adopted either the 3-dimension or the 4dimension configuration in their studies, depending on the context of their studies.

Research Patterns on the Relationship between Justice and Deviance

Theories on distributive, procedural, and interactional justice postulate that unfair treatment of employees not only can evoke negative work attitude and emotions, but can also lead to deviant work behaviors. The literature is replete with empirical evidence testing these

arguments. Because justice matters to individuals for a variety of psychological, economic, socioemotional, and moral reasons, these different motivations make certain aspects of justice more or less salient depending on specific times and situations (Cropanzano, Rupp, Mohler, & Schminke, 2001). Current justice theories and models differ in the elements they emphasize and largely depend on the research context. Under the general theoretical frameworks that will be reviewed in detail in the next section, scholars take multiple approaches to study the relationship between organizational justice and deviant workplace behaviors. Specifically, investigations range from a single component or measure of justice as the predictor, and a specific form of deviant act as the outcome variable, to multiple justice components as predictors, and an aggregated measure of workplace deviance as the outcome variable. Overall, the following three research patterns can be discerned.

First, in order to detect the role of the justice construct in determining the deviant behavior in question, some studies focused on the effect of one type of justice on deviant behaviors (e.g., Blader, Chang, & Tyler, 2001; Burton, Mitchell, & Lee, 2005; Gellatly, 1995; Jones & Skarlicki, 2005; Judge, Scott, & Illies, 2006; Rudman, Borgida, & Robertson, 1995; Shaw & Gupta, 2001). Some others developed a general justice measure to capture individual perceived equity (e.g., DeMore, Fisher, & Baron, 1988) and fairness (Clark & James, 1999). Because early research in procedural justice did not distinguish between procedural and interpersonal dimensions of justice, some measures of procedural justice tend to include items later identified as measures for interactional justice (see Colquitt et al., 2001 for a detailed discussion).

Second, justice is a multidimensional construct (Colquitt et al., 2001). As such, some researchers adopted a multidimensional justice perspective to probe the unique relationship between each component of justice and deviant behavior. In these studies, scholars attempt to delineate the relative predictive power of the different components of justice on different forms of deviant behavior outcomes. In other words, they test whether different forms of workplace deviance (e.g., organizational deviance and interpersonal deviance) are the result of specific justice components (e.g., Ambrose, Seabright, & Schminke, 2002; Aquino, Lewis, & Bradfield, 1999; Greenberg & Barling, 1999). Other studies included two or three types of justice as predictors of a single form of deviance (e.g., Blau & Andersson, 2005; Colquitt, Scott, Judge, & Shaw, 2006; Fox, Spector, & Miles, 2001; Henle, 2005; Kennedy, Homant, & Homant, 2004).

Third, justice is not only a multidimensional construct, but also each dimension interacts with each other (Brockner & Wiesenfield, 1996). Some work has been devoted to investigating the interactional effects of multiple justice components on deviant work behaviors and has yielded productive, consistent findings (e.g., Goldman, 2003; Greenberg, 1993b; Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999).

In the next section, I will present the theoretical frameworks that guided research on the justice-deviance relationship.

Justice and Deviance: A Theoretical Framework

The justice framework of deviant behavior argues that individuals' perceptions and experience of organizational justice significantly relate to deviant behaviors, and that the effects of justice on deviant behavior can be influenced by a variety of organizational, contextual, and

personal characteristics. This framework is based on theories related to distributive, procedural, and interactional justices. Researchers suggest that organizational justice plays an important role in employees' work life for a variety of reasons. Specifically, three models explicitly outline why fair or unfair treatment can influence employees' work attitudes, emotions, and behaviors. First, the instrumental perspective indicates that justice is influential in fulfilling employees' economic needs. Unfair treatment motivates individuals to take action to improve the compensation for their work input. Second, the relational perspective emphasizes that fair treatment affirms one's identity within valued groups. Unfair treatment prompts individuals to take actions to protect their social standing. Third, the moral virtue perspective argues that fair treatment signifies organizational adherence to prevailing moral standards (Cropanzano et al., 2001; Folger, 1998, 2001; Folger, Cropanzano, & Goldman, 2005). Violations of moral principles can trigger deontic anger, which may prompt retaliatory behaviors even when such actions are not rational (Folger, Cropanzano, & Goldman, 2005).

Employees evaluate organizational fairness based on outcomes, procedures, and personal interactions. To the extent employees perceive their work environment as unfair, they may develop negative attitudes and emotions such as job dissatisfaction, anger, frustration, and mistrust, leading to deviant acts against the organization and other employees (Bies & Tripp, 1996; Folger & Skarlicki, 1998; Greenberg & Alge, 1998). Below I will review these theoretical arguments in detail and discuss how they relate to deviant work behavior.

Distributive Justice and Deviance

Distributive justice has primarily been studied from the equity theory perspective. Equity theory (Adams, 1963) suggests that individuals need to maintain a view of their social and organizational worlds as just and predictable places. People assess the fairness of outcome distribution by comparing their contributions and outcomes against that of a referent (Adams, 1965; Cropanzano & Greenberg, 1997; Deutsch, 1985; Homans, 1961; Kulik & Ambrose, 1992). Inequitable outcome allocation provokes perceptions of injustice, which not only creates psychological distress, but also evokes behavioral responses among individuals. In other words, people not only express dissatisfaction over the violation of distributive justice norms, but also react in some way. Deviant behaviors are one such reaction. The act can either be carried out directly (e.g., stealing) or symbolically (e.g., personal attack) (Greenberg & Alge, 1998).

Early research on distributive justice shows that inequity in resource allocation is a primary motivation for various types of deviant acts. As mentioned earlier, distributive justice results from situations where individuals form a judgment of an unfair outcome. It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963). For example, in semi-structured interviews with retired garment workers, Sieh (1987) found that distributive injustice was an essential cause for workers to commit theft, sabotage, or mutilation, as workers felt that the organization owed them. Hollinger and Clark (1982) found that perceived inequities result in employee property and production deviance in a variety of industries.

Due to its focus on outcome fairness, distributive justice was found to relate to certain behavioral outcomes, such as work performance and withdrawal, actions shown to be effective in restoring equity. Therefore, distributive justice should have implications for behavioral reactions. Although equity theory has contributed a great deal to justice and deviance research, the theory focuses on the economic aspect of fairness, and thus is limited in explaining how people form fairness evaluation. Specifically, equity theory does not consider the effects of procedural and interpersonal aspects of fairness evaluations. Further, it lacks the ability to predict behavioral responses to unfair treatment (Colquitt et al., 2001; Folger & Cropanzano, 1998). Greenberg and Alge (1998) suggest that distributive justice is a necessary but not sufficient condition to motivate deviant behavior such as aggression. Overall, equity theory has been criticized for being too narrow by only considering the outcomes people receive, which are typically material or economic in nature (Folger & Cropanzano, 2001).

Procedural Justice and Deviance

Research in justice proliferated after the introduction of procedural justice. Procedural justice theory suggests that individuals form fairness judgments not only based on the outcomes received, but also based on the procedures used to determine these outcomes. Specifically, Lind and Tyler (1988) suggest two models of procedural justice that explain the importance of fair procedures on people's fairness perceptions and its outcomes. First, the self-interest or instrumental model asserts that process control is seen as influential in achieving desired outcomes. By controlling procedures, individuals can maximize the favorability of such outcomes in the long term. The second model, the group-value or relational model (Lind & Tyler, 1988; Tyler & Lind, 1992) proposes that a fair procedure indicates one's positive, full-status relationship with authority and promotes within-group relationships, and thus has

implications for a person's self-esteem and identity. With procedural justice, the focus is on the individual's evaluation of events that precede the distribution (Leventhal, 1980). A procedure is judged to be unfair if it indicates a negative relationship with authority or low status group membership (Tyler & Lind, 1992).

Research has shown that procedural justice can have a strong impact, independent of distributive justice, on a variety of attitudinal and behavioral outcomes (Sweeney & McFarlin, 1993). Evidence shows that unfair decision-making processes can lead to various negative consequences such as lower performance, higher turnover intentions, theft, and low organizational commitment (Cropanzano & Greenberg, 1997; Folger & Skarlicki, 1998).

Procedural justice is suggested to be a more important predictor of behaviors in response to judgments about the organization than is distributive justice (Materson, Lewis, Goldman, & Taylor, 2000). Employees perceive organizations as the source of justice or injustice because organizations establish formal rules and policies that regulate people's behavior and dictate the allocation of outcomes. In effect, if individuals perceive that the rules and regulations are inequitable, they may feel that it is impossible to get fair outcomes for their performance input. In light of these, some scholars suggest that actions taken in response to procedural injustice should be intended toward organization-focused outcomes such as low organizational commitment and physical property destruction (Aquino, Lewis, & Bradfield, 1999).

Interactional Justice and Deviance

Interactional justice focuses on individuals' perceptions of the quality of the interpersonal treatment received during the execution of organizational decisions. Researchers

initially suggested that interactional justice would be an important predictor of employee responses to judgments about the supervisor. However, investigations showed that, beyond the person-focused outcomes such as conflict, low performance, and poor attitudes (Folger & Cropanzano, 1998), interactional justice has notable ability in predicting behavioral outcomes including organizational citizenship behaviors (OCBs), withdrawal, and counterproductive behaviors (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). According to Bies and Moag (1986), insensitive or impersonal treatments are more likely to provoke intense emotional and behavioral response than other types of injustice. Violations of interpersonal justice tend to evoke the strongest emotional responses, ranging from anger to moral outrage (Bies, 1987), and revenge is usually accompanied by intense anger (Buss, 1961).

As an intermediate step between the enactment of organizational procedure and the decision, interactional concerns may be more salient to individuals when they form judgments of fairness than either the outcome or the structural characteristics of the procedure. For example, Petri, and Tanzer (1990) investigated the systematic difference of justice evaluations on negative incidents between the individuals who cause the negative incident and the individuals who suffer from the incident. They found that violation of interactional justice was relevant to all types of relationships. Their results suggest that people attach more importance to violations of interactional justice than they do to violations of procedural or distributive justice. Victims of interactional injustice are likely to engage in behaviors that help even the score with the offender (Folger & Cropanzano, 1998). Similarly, Bensimon (1994) reported that a rigid, authoritarian workplace could frequently contribute to workplace violence. In her report, disgruntled workers

who became violent reported that the dehumanizing way the action was carried out compelled their actions, rather than the fact that they were demoted, terminated, or laid off.

Multiple Dimensional Perspective of Justice and Deviance

Once research established the pattern in the relationships between justice judgments and work outcomes, scholars began to delineate the relative predictive power of the different types of justice on different work outcomes. Research conducted under the multiple dimensional perspective of justice framework reflected such a trend by focusing on the unique relationship between each component of justice and different forms of deviant behavior.

Researchers suggest that each dimension of justice represents a different facet of the relationship between the individual and his or her work environment. Therefore, each justice component should have different effects on a variety of organizational outcomes (Ambrose, Seabright, & Schminke, 2002; Neuman & Baron, 1998; Robinson & Greenberg 1998; Rupp & Cropanzano, 2002). According to social exchange theory (Blau, 1964), each justice component represents a source of a unique social exchange relationship such that interactional justice contributes to the relationship between individuals and their supervisor and that procedural justice contributes to the relationship between individuals and their organization. Based on the principles of social exchange, employees' attitudes and behaviors are outcomes of exchange relationships between employees, supervisors, and the organization (Cropanzano et al., 2001).

Applying a social exchange framework, deviant behavior may be viewed as the outcome of an adverse, or ill-fated, exchange relationship between employees, their supervisors, and the organization. Specifically, researchers (e.g., Cropanzano, Prehar, & Chen, 2002; Rupp &

Cropanzano, 2002) indicate that employees attribute their fairness treatment primarily to two sources and their behavioral responses tend to correspond to the perceived source of the justice. The two sources of justice include an employees' immediate supervisor and their organization as a whole. This is because both the supervisor and the organization have authority over employees and both are capable of justice or injustice in determining important outcomes. For example, organizations establish formal policies and procedures and thus are more likely to be the source of procedural justice. Supervisors are more likely to initiate interactional justice because they determine the quality of interpersonal treatment as the administrator of the procedures and decisions. However, due to their agent role, supervisors may be seen as the source of procedural justice as well and thus impact behaviors that are directed to both the organization and the supervisor.

These arguments suggest that employees differentiate their attitudes toward their supervisors versus their organizations, depending on the fairness experienced with both. A few studies empirically explored the association between certain justice components and the target of the deviant behavior (Ambrose et al., 2002; Aquino et al., 1999; Greenberg; Greenberg & Barling, 1999).

Interaction among Justice Components and Deviance

Research shows that not only do justice components influence employee attitude and behavior directly; they also interact to affect how individuals react to their perceptions of organizational justice. For example, procedural justice has a stronger impact when an outcome is unfair, and distributive justice has a stronger impact when a procedure is unfair. A robust

outcome and process interaction has been well documented in the literature (See Brockner & Wiesenfeld [1996] for a review).

In deviant behavior research, scholars note that people's motivation to seek revenge and other behavioral reactions are likely to be the strongest when individuals perceive multiple unfair events (Folger & Skarlicki, 1998; Tripp & Bies, 1997). Folger and Cropanzano (1998) indicate that employees' resentment, anger, or frustration will be most intense if they believe that not only are outcomes inequitable, but also if the procedure used to determine the outcome allocation is unfair, and the procedures/outcomes are carried out in an insensitive and disrespectful manner. While the presence of multiple aspects of injustice could trigger the most intense behavioral responses, the effect of one type of injustice can be mitigated by perceptions of other fairness aspects. For example, high perceptions of interactional justice can mitigate the effects of distributive injustice. In a study of performance appraisal, Folger and Konosky (1989) reported that employees who perceived their supervisors used fair performance appraisal procedures were more likely to have higher levels of pay satisfaction, loyalty, and trust for their supervisor regardless of the amount of pay or the perceived fairness of that pay. Similarly, when outcomes are fair, individuals are less affected by interpersonal injustice. Greenberg (1993) reported that employees did not respond to insensitive and disrespectful personal treatment when they perceive the outcome to be fair. Scholars further tested a three-way interaction of justice dimensions in a number of studies involving workplace deviance (Goldman, 2003; Skarlicki, & Folger, 1997). The studies are reviewed in detail in the next section.

Under the theoretical frameworks presented above, researchers empirically tested the effect of fairness perceptions on deviant work behaviors. In this section, I will review the

empirical studies published in sources identified in those listed in the introduction. I will organize the studies into two groups: those that tested the direct relationship between organizational justice and deviant behavior outcomes; and those that included moderators and/or mediators in the justice-deviance relationship.

Direct Relationship

A numbers of studies tested the direct relationship between justice and various forms of deviant behaviors, including incivility, sexual harassment, sabotage, theft, organizational retaliatory behavior, revenge, workplace aggression and violence, and withdrawal.

One study explored the effects of three types of justice on *workplace incivility*, a unique form of interpersonal mistreatment at work. Andersson and Pearson (1999: 457) define incivility as "low-intensity deviant behavior with ambiguous intent to harm the target, in violation of workplace norms for mutual respect. Uncivil behaviors are characteristically rude, discourteous, displaying a lack of respect for others." Instigated workplace incivility is distinct from interpersonal deviance in the way that it is of lesser intensity. Examples are "made an obscene comment at work" and "repeated a rumor or gossip about your boss or co-workers." These items were investigated, but not included, by Bennett and Robinson (2000) in their development of a workplace deviance scale (Andersson & Pearson, 1999).

Blau and Andersson (2005) conducted a longitudinal study among 221 employees from a number of different organizations over a four-year period. They measured the effects of distributive, procedural, and interactional justice, along with job satisfaction and work exhaustion, on instigated incivility. Path analyses and hierarchical analyses showed that

perceptions of distributive justice at time 1 were negatively related to incivility at time 2. They did not find a significant effect of procedural and interactional justice on incivility.

Clark and James (1999) extended research on justice to creativity by testing the effect of justice climate (measured by distributive and procedural justice perceptions) on both positive and negative creativity outcomes. The authors conducted an experiment using a sample of 95 undergraduate students. They found unfair treatment had a significant effect on individual negative creativity, measured by actions that deviously communicate negative information to harm another individual and his or her organization. This study showed that unfairness promoted individuals to develop ideas that may harm the organization and its employees while fairness encourages individuals to make positive contributions to the organization and its employee.

Chory-Assad and Paulsel (2004) extended justice research to the education domain by investigating the role of classroom justice (perceptions of fairness regarding outcomes or processes that occur in the instructional context) on students' aggression and hostility toward their instructors and resistance to their instructors' requests (revenge and deception). Data were collected from 154 undergraduate students. Hierarchical multiple regression analyses indicated that procedural justice significantly predicted all three antisocial communication behaviors among the students. However, distributive justice did not have significant effects on students' behavioral outcomes. In addition, results also failed to support the predicted interactive effects of procedural justice and distributive justice on behavioral outcomes. Their findings highlight the importance of procedural justice in determining student compliance and civility in classroom.

Kennedy, Homant, and Homant (2004) examined the association between perceptions of three types of justice and individuals' support for eight *aggressive behaviors*. Workplace

aggression refers to any form of behavior by employees that is intended to harm employees of an organization or the organization itself (Baron, Neuman, & Geddes, 1999). Workplace aggression and violence differ with respect to the nature of harm imposed on a victim (Greenberg & Barling, 1999). Workplace violence is a serious form of aggression that causes physical harm on the victim. Aggression is a broad concept, including violence as well as verbal and indirect behaviors that are intended to harm others, whether physically or emotionally (Neuman & Baron, 1998).

In the Kennedy et al. (2004) study, 139 college students participated in a study where they were presented with four scenarios representing different levels and types of an injustice situation. They were then asked to indicate their support for aggressive behaviors across the four scenarios. Results show a general pattern in that the higher the levels of perceived injustice, the stronger support for aggressive behaviors. Specifically, a procedural justice scenario was perceived as the most unfair and was correlated with the most support for aggression.

Interactional and distributive injustice scenarios were seen as equally unfair yet interactional injustice received significantly more support for aggression than did distributive injustice. Again, this result underlines the importance of treating employees in a respectful and considerate manner at the workplace.

Dietz, Robinson, Folger, Baron, and Schulz (2003) extended aggression and violence research to societal domain, suggesting that as far as an organization is embedded in, and shaped in part by, its environment, then violence in the surrounding community might affect aggression in the organization. This study addressed two possible causes of workplace aggression: societal violence in the community where an organization resides and an organization's procedural

justice climate. The authors collected longitudinal data from a sample of 250 plants of a large organization from different sources. Negative binomial regression analyses showed that the procedural justice climate was not a significant predicator of workplace aggression, although the level of violence in the community surrounding an organization was.

One of the behavioral responses of individuals who believe they are being treated unfair is to reduce input at work, such as lowering effort levels, performance, or attendance. Withdrawal entails work behaviors that reduce job inputs, such as tardiness, lateness, absenteeism, and turnover (Hulin, 1991). Organizational injustice has been linked to withdrawal behaviors directly or indirectly through job satisfaction and organizational commitment. A few studies established the relationship between injustice and withdrawal behaviors. In one study, Barling and Phillips (1993) examined how three types of justice affect different organizational outcomes. The authors conducted a study using a vignette manipulation among 213 full-time university students. MANCOVA results indicate that interactional justice influenced trust in management, affective commitment, and withdrawal behavior (measured by increased absenteeism and tardiness). Procedural justice influenced trust in management, but not withdrawal, while distributive justice did not have a significant effect on any of the outcome variables.

In another study, Gellatly (1995) examined whether absenteeism was affected by perceptions of interactional justice, age, organizational tenure, affective and continuance commitment, and the perceived absence norm in the employees' work unit or department. One hundred and sixty-six nursing and food services employees in a mid-size chronic care hospital provided attitudinal and perceptual data on an employee survey. Absence data (absence

frequency and total days absent) were collected during the 12-month period immediately following the employee survey. The author tested the hypothesized relationship between the various individual- and group-level factors and employee absenteeism in a structural model using LISREL. The results supported a significant effect of interactional injustice on absenteeism.

Two studies linked justice perceptions to the report rate of sexual harassment of the victims. Sexual harassment is a pervasive problem that disrupts the working environment for many individuals. Sexual harassment exacts high psychological and economic costs for both victims and organizations (Rudman, Borgida & Robertson, 1995). How organizations handle sexual harassment incidents has an important impact on the victims' perceptions of the organizational work environment and their work attitudes. In one study, Adams-Roy and Barling (1998) examined procedural justice, interactional justice, and personal assertiveness as predictors of women's decisions to confront or to report sexual harassment. They collected data from a sample of 142 female employees from seven Canadian organizations, who indicated they had been sexually harassed. ANOVA results show that personal assertiveness predicted the decision to confront the harasser. The effect of procedural justice was significant, yet contrary to the prediction, low levels of perceived procedural justice were associated with the decision to report sexual harassment through formal channels. The authors speculated such results could be due to the postdictive nature of the data. Interactional justice did not have a significant effect in reporting sexual harassment through formal channels.

In another study, Rudman, Borgida, and Robertson (1995) expected that high levels of perceived procedural justice should increase the reporting rate of sexual harassment because low procedural justice would discourage people from reporting due to uncertainties about the

neutrality and fairness of the process. They conducted a survey among 115 women and 3 men in a large public research university. Logistic regression analysis showed that the perception of low levels of procedural justice was a superior explicator of reporting rate for sexual harassment incidents to gender socialization. In other words, respondents who had doubts that filing a complaint would resolve their problems were significantly less likely to report the incident than those who were less skeptical of the fairness of the system.

One study by Ambrose et al. (2002) adopted a multidimensional perspective on justice to investigate how three types of injustice affect the goal, target, and severity of sabotage behavior. Workplace sabotage is behavior intended to "damage, disrupt, or subvert the organization's operations for the personal purposes of the saboteur by creating unfavorable publicity, embarrassment, delays in production, damage to property, the destruction of working relationships, or the harming of employees or customers" (Crino, 1994: 312). In their study, Ambrose et al. (2002) analyzed data recorded in 132 sabotage case interviews and showed that: (1) distributive injustice prompted employees to engage in sabotage behavior aimed at restoring equity; (2) when the source of injustice was procedural, saboteurs were more likely to target organizations rather than individuals; (3) when the source of injustice was interactional, employees were more likely to engage in sabotage acts that retaliate against both the organization and other employees; and (4) there was an additive effect of distributive, procedural, and interactional justice on the severity of sabotage. This study suggests that not only is injustice a dominate antecedent of sabotage, but also that each type of justice has relative importance for the saboteur to determine the target of sabotage behaviors.

Aquino et al. (1999) tested a comprehensive model that investigates the unique relationship between each type of justice and two forms of *workplace deviance*. Robinson and Bennett (1997: 6) defined workplace deviance as "voluntary behavior that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both." The workplace deviance construct includes two dimensions: organizational deviance and interpersonal deviance. Robinson and Bennett's definition of deviance represents an aggregated form of deviance behavior.

In their study, Aquino et al. (1999) hypothesize that: (1) distributive justice (pay, workload) is a significant predictor of interpersonal deviance, but not of organizational deviance; (2) procedural justice (promotions, performance evaluations, pay raises, termination, and discipline and grievance expression) is a predictor of behavior aimed against the organization as an institution, but not behavior aimed against individuals; and (3) interactional justice (courtesy and respect, truthfulness, explanation of decisions, and information sharing) has the strongest effect on workplace deviance targeting both the organization and individuals. Based on a survey among 245 employees, the results supported their hypotheses regarding the effects of distributive justice and interactional justice, but failed to support a significant connection between procedural injustice and organizational deviance.

Employee theft is often viewed as the expression of a grievance or a specific reaction to underpayment inequity. Greenberg (1990, 1993b) conducted a series of studies to investigate the effect of pay inequity on employee theft. In the first study (1990), he conducted a field experiment in manufacturing plants during a period of temporary pay deduction. Among the workers, those who experienced pay cuts had significantly higher theft rates that those who did

not experience pay cuts. Further, adequate explanations about the pay cuts reduced feelings of inequity and theft rate. In a follow-up study (1993b), the author conducted a test under a controlled experimental condition in which distributive justice (pay equity) and interactional justice (the amount of information provided and the level of sensitivity in which information was conveyed about the pay inequity) were manipulated. Results indicated that distributive justice had a direct effect of theft. Interpersonal injustice had no main effect on theft when the outcome distribution was fair. However, under the condition of pay inequity, interactional injustice interacts with distributive justice to lead to higher level of theft than distributive injustice alone. Together, these findings support the prediction that distributive unfairness can lead to deviant behavior, and that high levels of interactional justice can mitigate the negative effect of low distributive fairness and thus reduce deviance incidents.

Skarlicki and Folger (1997) defined *organizational retaliatory behaviors (ORBs)* as behavioral responses of disgruntled employees to perceived unfair treatment. They created a composite measure for the ORB construct that includes 17 retaliatory behaviors observed in the workplace. Examples include purposefully damaging equipment, taking supplies home without permission, and gossiping about the boss. Their survey of 240 manufacturing employees showed that ORBs had approximately equal correlations with distributive, procedural, and interactional justice. Their most important finding was that three types of injustice interacted to predict higher levels of ORBs. Specifically, ORBs were strongest when distributive, procedural, and interactional justices were low. Distributive justice alone did not affect retaliation; however, it did affect retaliation when both procedural and interactional justices were low. Their findings suggest that procedural and interactional justices are capable of functioning as substitutes for

each other. The authors also raised concern that a statistical model allowing only for the test of main effects and two-way interactions between distributive justice and procedural justice or distributive justice and interactional justice might run the risk of being misspecified.

Summary. The above studies made an important contribution to the literature of justice and deviance by empirically demonstrating consistent, significant effects of all types of justice on individual's negative behaviors in the workplace. A significant main effect of organizational justice (one or multiple components) on deviant behaviors existed in a majority of the studies. The outcomes studied include a range of deviant acts. It also provides a foundation for scholars to extend their research to develop more comprehensive models to study the justice-deviance relationship.

Moderators and Mediators

Researchers indicate that predicting deviant behaviors is a complex process, as numerous personal and environmental factors are interwoven to influence and determine how individuals react to a certain situation. For example, based on the results of their justice Meta analysis, Colquitt et al. (2006: 110) note "Although organizational justice has been shown to have behavioral consequences, there remains a surprising amount of variation in how individuals react to fair and unfair treatment." The authors further suggest that moderators could explain much of the variation. This demand is reflected in research that investigates moderators and mediators of the justice-deviance relationship. Out of the studies that included moderators, personal traits and emotions (agreeableness, alcohol consumption, history of aggression, impulsivity, negative affectivity, risk aversion, self esteem, sociality, trait anger, trait hostility, trust, and propensity)

are the variables that were mostly researched. Other moderators studied include national culture (power distance, nationality), perceived control, job autonomy, financial needs, justice climate strength, and social cues. Mediators include state anger, negative emotion, organizational identification, perceived organizational support, and job satisfaction. Below I will review each of these studies.

Personal Traits. A few studies suggest that personal traits influence the effect of justice on workplace deviance. Judge, Scott, and Ilies (2006) tested a model that examined the effects of emotions (trait hostility and state hostility) and interpersonal justice on job satisfaction and workplace deviance. They measured workplace deviance using the scale developed by Bennett and Robinson (2000) but did not distinguish between organizational and interpersonal dimensions of deviance. Sixty-four full-time employees and their supervisors and significant others (e.g., spouses) completed surveys via a website. Hierarchical linear modeling was used to analyze variables at both within- and between- individual levels. The results show that hostility, interpersonal justice, and job satisfaction significantly predicted within-individual workplace deviance. Trait hostility moderated the interpersonal justice-state hostility relation such that perceived injustice was more strongly related to state hostility for individuals high in trait hostility.

Henle (2005) investigated the interaction between organizational justice (distributive, procedural, and interactional) and personality (socialization and impulsivity) on *workplace deviance* among 151 undergraduate students who were employed. Multiple regression analysis indicates that interactional injustice was significantly related to workplace deviance (measured with a 19-item scale by Bennett and Robinson [2000]). Furthermore, socialization and

impulsivity moderated this relationship such that employees who scored low on socialization had a higher frequency of deviance at work when they perceived low interactional justice. Similarly, impulsive employees were more likely to engage in deviance when they perceived low interactional justice.

Fox, Spector, and Miles (2001) describe *counterproductive behavior* as behavior that is intended to have a detrimental effect on organizations and their members. It can include overt acts such as aggression and theft or more passive acts, such as purposely failing to follow instructions or doing work incorrectly. Their conceptualization of counterproductive behavior is consistent with Robinson and Bennett's (1995) taxonomy of workplace deviance (Fox & Spector 2001). Empirically, Fox et al. (2001) assessed relations among job stressors, perceptions of injustice, and CWB within the framework of job stress theory. The authors conceptualize injustice as a form of perceived work stress. They surveyed 292 employees at a variety of organizations and found that distributive justice was significantly related to organizational counterproductive work behavior but not personal counterproductive work behavior. Procedural justice was related significantly to both organizational CWB and personal CWB. And these relationships were mediated by negative emotions.

Colquitt, Scott, Judge, and Shaw (2006) developed a comprehensive model integrating three theories in the justice literature—fairness heuristic theory, uncertainty management theory, and fairness theory, to investigate the interactive effects between justice dimensions and personality traits on *counterproductive behavior*. They predicted that three traits moderate the effects of procedural, interactional, and distributive justice on task performance and counterproductive behavior. In their experiment among 238 undergraduate students, they

manipulated levels of procedural and distributive justice. Counterproductive behavior was measured by taking pens from pens holders when told not to. Multiple regression analysis revealed that trust propensity moderated the relationship between interactional justice and counterproductive behavior; risk aversion moderated the relationship between both procedural justice and interactional justice, and counterproductive behavior, respectively.

In an extension of their study of *organizational retaliatory behaviors*, Skarlicki, Folger, and Tesluk (1999) examined the interaction of personality and fairness perceptions on retaliatory behaviors among workers. They found that a person-by-situation interaction explained variance in ORBs beyond the variance explained by fairness perceptions alone. Specifically, negative affectivity and agreeableness were found to moderate the relationship between fairness perceptions and retaliation.

Burton, Mitchell, and Lee (2005) examined the concept of *organizational retaliation* behavior (Skarlicki & Folger, 1997) from an individual and situational perspective. They conducted two experiments among 152 college students to examine the role of interactional justice in potential retaliation. Both studies found that individuals intended to retaliate against perceived interactional injustice. Further, personality moderated the effects of interactional injustice on retaliation such that individuals with high self-esteem were most likely to respond to perceived injustice with retaliatory acts. Also, they found that information about the boss one received from the group members can influence the perceptions of injustice and the subsequent retaliatory actions.

Goldman (2003) extended the examination of a three-way interaction of justice components to *legal claims* filed by terminated employees. Filing legal claims is different from

typical workplace deviance because it is an action taken by employees "outside" the company. Nevertheless, it is also similar to ORB as a type of punitive, retaliatory action to resolve perceived injustice (Goldman, 2003). The author surveyed 583 recently laid-off individuals who intended to file legal claiming against their formal employers. The results showed that three types of justice interacted to predict discrimination legal-claiming. The author also examined the role of personality in legal-claiming action and found that state anger partially mediated the relationship between the three-way justice interaction and legal claiming, and that trait anger moderated the relationship between the three-way justice interaction and legal-claiming.

Greenberg and Barling (1999) investigated personal attributes and workplace factors as a predictor of *workplace aggression*. The authors asked 136 male, full-time employees in a Canadian university to report their aggression behavior at work. They found that procedural justice (including both procedural and interactional justice aspects) and surveillance were significantly related to aggression against a supervisor, but not aggression against a subordinate or a coworker. Distributive injustice was not significantly related to aggression against either a supervisor or a subordinate or a coworker. Further, procedural justice interacted with alcohol consumption in predicting both aggression against a coworker and aggression against a subordinate. Procedural justice also interacted with history of aggression in predicting aggression against a subordinate. In view of the results, the authors concluded that it is important to understand that employees' aggression is target specific and that organizations should consider both personal behaviors and workplace factors in an attempt to curb potential aggressive behaviors.

National culture. In a cross-nation study of absenteeism, Lam, Schaubroech, and Aryee (2002) surveyed 215 Hong Kong Chinese and 180 American bank tellers of a large multinational bank. Results of regression analysis show that the effects of distributive justice and procedural justice have significant effects on absenteeism across different cultures, and such effects were moderated by power distance, a distinct dimension of societal culture that represents the extent to which less powerful members of institutions and organizations expect and accept that power is distributed unequally.

Blader, Chang, and Tyler (2001) examined the cross-national generality of procedural justice effect on *organizational retaliatory behaviors* between an American and a Taiwanese sample. Results indicated that national culture (measured by nationality) moderated the relationship between procedural justice and retaliation such that the influence of procedural justice was slightly lower among the Taiwanese sample. In addition, they found that organizational identification fully mediated the effects of procedural justice on retaliation among the Taiwanese sample.

Financial need. Shaw and Gupta (2001) conducted a longitudinal study among 651 employees of 5 U. S. mid-western organizations. Pay fairness was found to be a significant predictor of absenteeism and turnover. Financial needs moderated the pay fairness effect.

Justice climate strength. Research also considered justice climate as a group level predictor of workplace deviance. Naumann and Bennett (2000) defined procedural justice climate as a distinct aggregate-level cognition of how a group as a whole is treated. In other words, justice climate represents organization members' shared perceptions of workplace fairness. Dietz, Robinson, Folger, Baron, and Schulz (2003) suggest that procedural justice

climate may be linked to workplace aggression through two mechanisms. First, a poor procedural justice climate instigates collective negative reactions by creating an aversive and unjust work environment. Second, procedural justice climate may influence organizational norms for aggression. When employees collectively believe they are not treated fairly, they perceive the presence of disrespect to them as a whole (Folger, 1993; Lind & Tyler, 1988). For example, Adnersson and Pearson (1999) note that experience or observation of repeated acts of disrespect often erodes organizational norms for respectful and civil behavior

Colquitt, Noe, and Jackson (2002) examined antecedents and consequences of procedural justice climate in a sample of manufacturing teams, including a total of 1,747 employees working in 88 teams from 6 different plants of an automobile parts manufacturing firm. The results showed that climate level (i.e., the average procedural justice perception within the team) was significantly related to *team absenteeism*. Procedural justice climate strength interacted with justice climate. Although Dietz et al. (2003) did not find a main effect of justice climate on workplace violence, the Colquitt et al. (2002) study showed the importance of justice climate as a contributor to team absenteeism.

Perceived control. DeMore, Fisher, and Baron (1988) developed a model predicting that vandalism is most likely where there are low perceived equity (perceived lack of fairness in one's social or environmental arrangements) and low to moderate perceived control (perceived inability to effectively modify outcomes and arrangements). Fifty-eight university students were given questionnaires that measured perceived equity and control over factors related to their university and to their dormitory living. Students who felt they were unfairly treated by

authorities resorted to vandalism in order to reduce perceived inequity. Low level of control intensified the propensity to engage in vandalistic acts.

Social cues. Jones and Skarlicki (2005) applied fairness heuristic theory framework to examine the relationship between interactional justice, social cues (peer evaluation on authority's fairness reputation), and retaliation behaviors, among 105 student participants. In their experiment, the researchers manipulated an authority's reputation (fair, unfair, or absent) and the authority's fairness behavior (fair vs. unfair) in the interactions between the participants and the authority. Results showed that prior knowledge about the authority based on peers' comments about the authority biased how participants interpret and react to the authority's fairness behavior. Specifically, interactional justice mediated the effect of social cues on retaliatory behavior. Social cues moderated the authority behavior to predict retaliation. Among the individuals who were treated unfairly, those who perceived and expected the authority to be fair retaliated more than those who had no prior knowledge about the authority.

A study conducted by Aquino, Tripp, and Bies (2006) focused on the moderator between justice and revenge. *Revenge* refers to an effort by the victim of harm to inflict damage, injury, discomfort, or punishment on the party judged responsible for causing the harm. Acts of revenge are often intended to inflict pain on the offender, with the goal of elevating the victim to a superior position (Aquino et al., 2001; Stuckless & Goranson, 1992). Research indicates that revenge occurs routinely in organizations (Bies & Tripp, 1996), and has been cited as one of the major reasons for aggressiveness (Brown, 1986), employee theft (Terris & Jones, 1982), and industrial sabotage (Crino, 1994).

Specifically, Aquino et al. (2006) studied the influence of power and status of the victim and procedural justice climate on the choice of coping responses of the victims of workplace offense in a field survey from 129 employees in a large public utility organization and a laboratory experimental among 148 MBA students. Across both studies, procedural justice climate showed clear and strong influence to moderate the effects of both absolute and relative hierarchical status on the victim's response behavior toward workplace offense (revenge, forgiveness, reconciliation, or avoidance behaviors). Their results suggested that victims of workplace offense chose to enact revenge not only to protect their work outcomes and their social esteem, but also to pursue justice itself, an argument consistent with that of deontic justice (Folger et al., 2005). Their findings also highlight the effect of procedural justice climate in channeling the desire for revenge into less revenge and into more forgiveness and reconciliation.

Summary. The above studies contribute to the literature by identifying and testing moderators and mediators that influence the effect of justice on deviant behaviors. Scholars have long acknowledged that workplace deviance is a product of both situational and individual factors. In their review on justice research, Colquitt and Greenberg (2003) emphasize that, in order to better map out the complex relationship between organizational justice and its outcomes, it is important to include moderators and mediators in the research models. These suggestions should apply to the study of deviance work outcomes as well. Because the same kind of injustice experience may direct people toward different reactions in different situations, knowledge about the boundary conditions will help us better understand when a specific form of deviant response will be most likely to occur. Meanwhile, the knowledge of the intervening mechanisms will help us better understand the process of why and how fairness perceptions are related to different

outcomes. Such knowledge would also have practical benefits for organizations to design interventions to improve justice perceptions and behavioral outcomes effectively (Colquitt & Greenberg, 2003). The above studies, albeit limited in quantity, echo the need for developing comprehensive models to delineate the relationship between justice and deviance. In the next section, I will summarize research accomplishments and discuss research gaps that remain.

Summary

Research on the relationship between justice and deviance has been growing in recent years. Several trends emerged from this review. First, organizational justice—distributive, procedural, and interactional—has shown consistent, significant effects on workplace deviant behaviors. Research found significant main effect of justice (one or multiple components) on deviant behaviors in a majority of the studies. Such a pattern provides strong support for justice theories that postulate that perceptions of injustice can lead to negative behavioral outcomes among employees. It also contributes to deviance research by identifying organizational justice as a critical predictor of deviant behaviors.

Second, research progressed to develop comprehensive models by incorporating moderators for the justice-deviance relationship. Studies have identified and tested a number of important moderators in the justice-deviance relationship. Out of 29 studies, 15 studies included moderators and found significant interactive effects between certain moderators and justice components in predicting deviant behavioral outcomes. Such practice is promising in furthering our understanding of the complexity of the justice and deviance relationship. In comparison, the study of mediators was scarce. Out of 29 studies, only 4 of them suggested mediators. Compared

to the research of moderators and mediators devoted to studying the relationship between justice and positive work outcomes in the organizational behavior literature, a more in-depth research of potential moderators and mediators is imperative.

Third, despite its theoretical plausibility, empirical studies linking justice dimensions to different negative outcomes is somewhat muddied. For example, in three studies that tested the notion that employees' deviant behaviors were target specific, the specific link between the justice component and the target of deviance was not consistent. Ambrose et al. (2002) found that procedural injustice was significantly linked to sabotage behavior targeting the organization, and interactional injustice preceded sabotage behavior targeting both the organization and its members. Aquino et al.'s (1999) study failed to establish a significant link between procedural justice and workplace deviance that target the organization, while their findings on interactional justice agreed with that of the Ambrose et al. study. Greenberg and Barling's (1999) study of aggression showed that procedural and interactional justice were associated with aggression against a supervisor.

As such, questions still remain whether justice dimensions have different levels of associations with various behavioral outcomes, and if so, which has the strongest unique effects on certain outcomes. Treating each type of justice as a distinct phenomenon may contribute to the understanding of specific justice-criterion relationships, but it tends to underestimate the similarity among justice dimensions and ignore the interwoven relationship among them (Cropanzano & Ambrose, 2001). As indicated by Cropanzano and Ambrose (2001), the distinction between procedural justice and distributive justice is more semantic than practical. Their "monistic view" of organizational justice posits that procedural justice and distributive

perceptions both emanate from individuals' expectations about two types of outcomes: economic and socioemotional. That is, both "process" and "distribution" have to do with the allocation of these two types of outcomes. Further, the same event can be seen as an economic outcome in one context and a socioemotional outcome in another. In addition, some scholars are concerned that studies using a multifoci justice approach to predict various organizational outcomes tend to ignore the implications of their multivariate relationship. Decades of justice research, as summarized in numerous review papers (e.g., Colquitt & Greenberg, 2003; Cropanzano et al., 2001) and a number of meta-analyses (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Hauenstein, McGonigle, & Flinder, 2001; Viswesvaran & Ones, 2002), show that, while different justice dimensions contribute a substantial unique variance in various work outcomes, they are highly correlated (the correlation indexes range from r = .42 to r = .63 between them). In view of this, Hauenstein et al. (2001) assert that justice-criterion conclusions are problematic because they are likely to capture common variation in outcomes. Therefore, the discrepancy among the findings could be due to the difference in the theoretical perspectives difference, the limitation of the methodology adopted, or the difference in the particular deviant behaviors under investigation. Further research is definitely needed to clarify and to validate the multiple dimensional perspective justice and deviance research.

Fourth, research on the effects of justice interactions on deviant behaviors is consistent with other work outcomes such as organizational commitment, job satisfaction, and perceived organizational support (Brockner & Weisenfield, 1996). The significant justice interactive effect in predicting organizational retaliatory behaviors, theft, and legal claim should provide the ground work to extend interaction predictions to other forms of deviant behavior.

Future Directions

So far, I have reviewed the current literature in the relationship between organizational justice and deviance outcomes. I have summarized research accomplishments attained and identified the research challenges ahead. I believe that future advancement of justice and deviance research depends in large part on the clarification of the concepts of interest and the development of better theories and methods that guide future empirical testing. Below I will discuss a number of paths researchers can undertake in the future to address new inquires in this research area.

As revealed in the above review, research has strived to identify predictors of employee deviant behaviors and have had fruitful findings. It is especially encouraging to observe the rise of comprehensive models in recent justice and deviance literature. Future research should continue to conduct more in-depth research in this area by incorporating moderators and mediators. In this section, I suggest a number of variables that warrant further investigations. Some of them are extensions based on the current literature reviewed above; some of them have been researched in other areas of organizational behavior but are new to the justice-deviance literature. Specifically, moderators already researched but warrant further expansion include personality, national culture, perceived powerlessness. Variables new to the justice-deviance relationship include organizational structure and ethics. I also suggest attribution and trust as possible mediators that channel the effect of organizational justice on deviant behavior outcomes.

Moderators

Organizational structure. Organizational structure refers to an organization's internal pattern of relationships, authority, and communication (Thompson, 1967). It is considered to be the enduring allocation of work roles and administrative mechanisms that allow organizations to conduct, coordinate, and control their work activities (Jackson & Morgan, 1982). Organizational structure provides a social context in which individuals acquire and process social information, activate cognitive activity, and develop social interactions and interpersonal relationships (Galbraith, 1973). Structure influences the flow of information as well as the context and nature of human interactions (Miller, 1987). Social interaction and interpersonal relationships, in turn, have the ability to influence productivity efficiency, turnover, and work satisfaction (Blau, 1964).

Scholars indicate that structural differences can produce systemic difference in employees' attitude and behavior (Conger & Kanungo, 1988; Kemper, 1966). Organizational structure should affect the impact of justice perception on work outcomes because justice perception is highly contextually specific. Colquitt and Greenberg (2003: 198) note that "justice perceptions are socially constructed, derived from a complex process of social comparison and normative influences." Ambrose and Schminke (2001) indicate that the notion that different procedural rules prevail in different situations is embedded in procedural justice theories. The authors analyze each of Leventhal's (1980) six procedural justice rules when people make fairness judgments and conclude that the application of justice rules are highly contextually specific. In particular, they suggest that a mechanistic organizational structure is more relevant than an organic organizational structure when employees apply five of Leventhal's rules—

consistency, bias suppression, accuracy, correctability, and representativeness, in making fairness judgments.

In an empirical study, Ambrose and Schminke (2003) hypothesize that organizational structure can moderate the relationship between procedural justice and interactional justice and their respective social exchange relation outcomes. They argue that in mechanistic settings, procedural justice becomes the norm by which individuals evaluate organizational fairness, whereas in organic settings, interpersonal influences should increase the weight of interactional justice in individual outcomes. Their findings show that under mechanistic conditions, procedural fairness has a stronger relationship with employees' perceived organizational support, as opposed to conditions found in organic settings. Under organic structural conditions, interactional justice has a stronger relationship with employees' trust in their supervisors, than in mechanistic organizations.

Despite the fact that organizational contexts are known to influence the behavior and attitudes of employees, researchers know surprisingly little about how the contextual situation affects the importance of injustice perception in behavioral outcomes. In concluding their meta analysis on organizational justice, Cohen-Charash & Spector (2001: 309) precisely express such a concern by stating: "We should also improve our knowledge about the importance of context on perceived justice ... Context may influence not only the importance of kind of justice, but also the importance of various principles within each kind of justice." According to this perspective, it is possible that structural characteristics alter individuals' perceptions of their treatment while also shaping the behavioral reactions triggered by those perceptions. The Ambrose and Schminke (2003) study clearly shows that organizational context, specifically,

organizational structure, matters in justice-outcome relations. Based on this evidence, research should extend the framework to explore the effect of structure on the relationship between justice and workplace deviance. Would organizational structure have the ability to reduce the effect of justice perception on deviant behavior? How do different structural characteristics affect the predicting power of each type of justice on the outcome?

Ethics. An ethical framework consists of an essential makeup of organizational context and has significant implications for the study of workplace deviance (Peterson, 2002). Schminke, Ambrose, and Noel (1997) note a similar distinction people draw between process and outcome as they make judgments on justice and ethics. Similar to the principles of distributive justice and procedural justice, respectively, utilitarian principle tends to be outcome-based, while formalist principle tends to be rules- or process-based. Their empirical study demonstrates that ethics orientation moderates the impact of distributive justice and procedural justice on their respective fairness perceptions. Extending this line of research, could it be possible that, depending on one's ethics orientation, distributive justice and procedural justice may be differentially important for certain individual behaviors? Specifically, could we expect a stronger relationship between distributive justice and deviant behavior that is instrumental in equity restoration (e.g., theft) among utilitarian individuals than among formalist individuals, and a stronger relationship between procedural justice and deviant behavior that is expressive (e.g., aggression) among formalist individuals than utilitarian individuals?

Information about justice. The study by Jones and Skarlicki (2005) provided direct initial evidence showing that social cues moderate the effect of authority justice behavior on retaliatory behavior. One variable germane to justice judgment is the information processing style in

organizations. Ashford and Cummings (1983) noted that individuals are proactive information seekers interested in assessing where they stand and how they are doing. Social information processing (SIP) theory (Pfeffer & Salancik, 1978) asserts that work attitudes and behaviors are, to a large degree, the result of the processing of information from the social environment rather than individual predispositions. This theory states that socially derived information plays an important role in developing attitudes and behaviors of an individual. It emphasizes the importance of contextual factors rather than individual perceptions (e.g., organizational justice) in predicting work attitudes and behaviors. "SIP assumes that individuals are adaptive organisms who change their attitudes, behaviors, and beliefs to their social context and to the reality of their own past and present behavior and situation" (Pfeffer & Salancik, 1978: 226). As a result, Pfeffer and Salancik argue that individual behavior can best be understood by studying the "informational and social environment within which that behavior occurs and to which it adapts."

According to the social information processing framework, individuals differ in the extent to which they perceive and apply justice principles in different contexts (Lind & Tyler, 1988). First, justice effects are open to the influence of various contextual variables, including organizational structure mentioned above. That is, people develop their fairness perceptions through a process of social comparison and normative influences (Greenberg, 1990; Tyler, & Bies, 1990). For example, Kulik and Ambrose (1992) suggest that organizational contexts influence the relevance of the referent and the availability of information which individuals use to form their fairness perceptions. Umphress, Labianca, Brass, Kass, and Scholten (2003) suggest that the ambiguity of justice concepts make justice effects open to the influence of social

processes such as network relations. Van den Bos (2001) emphasized that contextual information is critical to individuals' fairness judgment and their reactions to decisions of the authority. The study by Jones and Skarlicki (2005), and Burton et al. (2005) provided further evidence showing that social cues moderate the effect of authority justice behavior on retaliatory behavior. These arguments indicate that social information and social interactions play an important role in determining people's fairness judgments and their reactions to work outcomes.

An underlying question in the study of organizational fairness is how employees acquire information about their employers (Moorman, 1991; Skarlicki & Folger, 1997). It is common in organizations that individuals do not always have, or actively seek, information about all aspects of justice. Instead, information with certain characteristics, such as availability, ease of understanding, or perceptions of relevance and importance to one's well-being, may stand out as the primary parameter for the evaluation of the relationship employees have with their organizations and supervisors. As far as individuals rely on not-so-perfect information to assess organizational fairness, it is likely that their reactions would vary accordingly as well. Among individuals who experience unfair treatment, the information they gather about the fairness practices of the organization and supervisor should influence how they would react to the unfair experience.

National Culture. Another important contextual variable that lies beyond the organizational context is national culture. In an internationally collaborated study, Brockner et al. (2001) tested national culture as a moderator of justice effects in four independent studies. They found that the negative effect of low levels of voice was stronger in counties characterized as low in power distance (the United States and Germany) than in countries and regions characterized as

high in power distance (China, Mexico, and Hong Kong). In nations low on power distance, people expect a higher level of participation in the decision-making process (Hofstede, 2001). As voice provides the opportunity for individual input in decision-making; low level of, or lack of, voice is seen as a violation of procedural justice principles. In comparison, in nations high on power distance, people are more tolerant of an authoritarian management style and thus respond less negatively to the lack of voice in decisions.

In another study, Lam, Schaubroeck, and Aryee (2002) examined the role of cultural values on the relationship between organizational justice (procedural and distributive) and employee work outcome. Specifically, they found that power distance moderated the relationships between perceived justice and satisfaction, performance, and absenteeism. The effects of perceived justice on these outcomes were stronger among individuals scoring lower on the power distance index. However, justice effects on work outcomes did not differ across individuals with different levels of individualism.

National culture has been well examined and demonstrated as an important variable in organizational behavior research including work motivation and workplace justice. Some initial studies showed that national culture could moderate the effect of justice on deviance (Lam et al., 2002; Blader et al., 2001). However, researchers have yet to fully investigate its role on negative work behaviors. I suggest this to be another potential research path to pursue. Indeed, crosscultural research has provided us with a rich array of tools that we can apply in justice-deviance research. For example, a well-known paradigm for understanding differences in individual attitudes and behavior across cultures and nations is Hofstede's (2001) five-dimension framework. These five cultural dimensions are *individualism-collectivism* (the degree that

members of a society give precedence to the individual or the group), power distance (the degree to which unequal distribution of power and wealth is accepted in society), uncertainty avoidance (the way in which different societies deal with uncertainty about the future and the need for control), masculinity-femininity (tendency to focus on task achievement, goal accomplishment, assertiveness, and self interest), and Confucian or time-orientation (the degree that organizations distinguish between a long-term and short-term orientation toward life and work). Research has yet to discover how these differences might influence the justice-deviance relationship. For instance, in a collectivistic and high-power distance culture, people rely heavily on their relations with their social groups and the authority in formulating their self-identity. Their values emphasize respect, affiliation, dependency, and social obligation, more so than in an individualistic culture. Under this premise, it is conceivable that fair interpersonal treatment may be particularly salient to one's self-perception of the work environment. As such, we would expect a stronger relationship between interactional justice and employee deviance that between other types of justice and deviance.

Personality. Personal traits were the most researched moderators in the justice-deviance relationship reviewed above. Indeed, in the area of organizational behavior, the effect of personality on behaviors is one of the most robust findings in behavioral research (see Barrick & Mount [1991] for a review). Scholars stress that personality is an important predictor of workplace deviance (Bennett & Robinson 2003; Giacalone & Knouse, 1990). In addition to the studies demonstrating the moderating effect of personality factors the justice-deviance relationship, some researchers took a further step to investigate the unique relationship between

certain personality traits and the deviance target. Their results showed that the effects of personality traits differed for deviant behaviors that target the organization versus individuals.

For example, Liao, Joshi, and Chuang (2004) examined the relationship between personality and both forms of workplace deviance. Applying a social exchange framework, the authors suggested that interpersonal deviance could be seen as an outcome of the exchanges between an employee and other individuals within the organization; and that organizational deviance as an outcome of the exchange between an employee and the organization. They hypothesized that personality differences could influence the perceived nature of social exchange relationships and thus influence the target of deviance. Analysis of data collected from 286 employees from 26 restaurant chain stores showed that agreeableness and openness to experience were significantly associated with organizational deviance, while conscientiousness and extraversion were significantly associated with interpersonal deviance. In addition, perceived organizational support partially mediated the relationship between agreeableness and organizational deviance.

In another study, Lee, Ashton, and Shin (2001) found, among 267 Korean workers, socially-oriented traits such as agreeableness and extraversion were more strongly associated with antisocial behavior toward individuals than those toward the organization, whereas work-oriented traits such as conscientiousness showed the opposite pattern.

Based on this research, the fact that personality differences may contribute to the specific link between justice dimensions and the target of employee reactions may provide another domain for us to explain the complex nature of justice-deviance relations.

Powerlessness. Perceived powerlessness refers to the lack of work control and job autonomy. It shares a common theoretical background with perceived control. Previous research has reported a positive association between lack of control and destructive behaviors (Allen & Greenberger, 1980; Ambrose & Schminke, 2003; Bennett, 1998; Storms & Spector, 1987).

Both justice and powerlessness are related to the concepts of power and perceived control and are suggested to be antecedents of deviance (Ambrose et al., 2002; Bennett, 1998). Theories in both the justice and powerlessness literature explore, explain, and predict human activities that are motivated by the fundamental need of people to control and to influence their social environment as well as the process through which their desired outcomes are attained and maintained. Despite their common theoretical background in the importance of control, justice and powerlessness have generally been studied separately as plausible causes of deviance.

Based on the theoretical implications, I suggest research further explore powerlessness as a potential moderator to the justice-deviance relationship. As we know, injustice can trigger control-based concern. Powerlessness can further intensify feelings of lack of control.

Individuals who perceive injustice and powerlessness feel that not only do they receive unfair treatment, but also they have little legitimate power to acquire the results they expect. Under such condition, they are more likely to retreat to deviance as a means of expressing their negative emotions and/or to regain a sense of control. In other words, those individuals who experience unfair treatment in their organizational life, perceived powerlessness discourages them from utilizing the legitimate means to regain power and resources. As such, deviance becomes one of the last resorts to assert influence over their environment and over the perceived powerful party. In addition, when the individual is less powerful than the source of the perceived injustice,

attempts to restore justice tend to be indirect. Within the existing power relationships in organizations, it is likely that employees will believe deviance is an effective outlet for them to exercise their power and to restore the balance of justice (Folger & Skarlicki, 1998; Jermier, Knights, & Nord, 1994). These arguments suggest an interactive effect of organizational justice and perceived powerlessness on employee tendency to engage in deviant acts.

Mediators

In reviewing the current state of organizational justice research, Colquitt and Greenberg (2003) acknowledge that little is known about the processes of justice effects. They note that, in order to build a better theory of justice, it is necessary to identify the intervening mechanisms, or mediators, of the theory. As Greenberg and Alge (1998: 101) note, "it is one thing for people to recognize they have been victims of unfair distributions or procedures, and quite another for them to act on these beliefs." Mediators should hold part of the key to unveil the transition from injustice experience to deviant acts.

However, very few studies have included mediators when linking justice judgments to deviant behaviors. The lack of study of mediators exists in the overall research of justice-outcome relationships. In their recent justice review, Colquitt and Greenberg (2003) warned that mediators of the justice-outcome relationship remained a "black box." Therefore, much work is needed to fill up this gap in the justice and deviance literature. In their review, Colquitt and Greenberg (2003) identified a few mediators of the justice-outcome linkages implied in justice theories. These are *legitimacy*, *identification*, and *blame*. Among them, organizational

identification and blame have received some attention in the justice-deviance literature. I suggest scholars apply these variables to further justice-deviance study.

Organizational identification. Organizational identification refers to "the extent to which individuals define themselves in terms of their membership in a group or organization" (Colquitt & Greenberg, 2003: 187). Research in procedural justice found a positive effect of procedural justice on employees' identification with their organizations (Tyler & Blader, 2000). When the organization uses fair procedures, individuals feel respected by their social group, thus enhancing their pride in membership. Tyler and Blader (2000) found identification to be an important antecedent of compliance, in-role behavior, and extra-role behavior. More importantly, Blader et al. (2001) found that organizational identification mediated the effects of procedural justice on retaliation among both the U.S. and Taiwanese sample. Therefore, procedural justice affects how people define themselves in terms of their group membership, which consequently affects their behavior within the group or organization. This finding provides some group work for futher exploration of the role of organizational identification between the justice variable and behavioral outcomes. Researchers should extend this framework to explore whether organizational identification can mediate the reationshp between justice and workplace deviance.

Attribution. Colquitt and Greenberg suggest that blame may mediate justice effects on counterproductive behaviors. Attribution is similar to blame as discussed by Colquitt and Greenberg (2003). However, the concept attribution has a broader focus on the psychological process that arrives on a causal inference of unfairness sources. Attribution refers to peoples' causal ascriptions of events and behaviors (Fiske & Taylor, 1991). Under the context of justice,

attribution of unfairness refers to people's evaluation of the intent of the decision maker in the process resulting in an undesirable outcome (Folger & Cropanzano, 1998).

According to attribution theory, people constantly seek to understand the causality for the outcomes of their actions, particularly when their outcomes are perceived as unfavorable. The attributions people make influence their subsequent work attitudes and behaviors (Fiske & Taylor, 1991). The mediating role of attribution of intent is implied in the agent-system model reviewed above, as the model acknowledges the organization and supervisor as the source of injustice. Further, fairness theory explicitly indicates that causal attribution occurs in the process by which people make fairness judgments and decide how to react to negative decisions. Folger and Cropanzano (1998) conceptualize fairness as "accountability—or how another social entity comes to be considered blameworthy." A central argument of fairness theory is that socially targeted resentment occurs when someone else is considered responsible. Such resentment can then lead to anger, hostility, moral outrage, and aggression.

Folger and Cropanzano (1998) indicate that attribution of the intent has significant implication for why unfairness is perceived and how the target for reaction is selected. Specifically, they believe that procedural justice and interactional justice are the primary basis for inferences of intent of the decision maker. Inference of intent can influence responses to unfairness. They note that if an action seems intended, that inference links the action with its unfair implication and thereby connects the intentional actor with the unfairness—making the actor a target for resentment and hostility (see Folger & Cropanzano [1998] for a review). In this regard, attribution theory provides a theoretical framework for explaining this interpretive process, and how it relates to peoples' responses to personal offenses (Bradfield & Aquino,

2006). For example, depending on what the employees believe, whether the organization or the supervisor is the culprit for the unfair treatment, it is likely that they will retaliate against the organization or the supervisor accordingly.

Barclay, Skarlicki, and Pugh (2005) suggest that people's reactions to outcome favorability differ for inward-focused (i.e., shame and guilt) and outward-focused (i.e., anger and hostility) negative emotions. Attributions of blame mediate the relationship between fairness perceptions and the reaction pattern. When people blame themselves for the unfavorable outcome, they are more likely to feel responsible for the outcome and take the negative emotions inward. In contrast, when people blame the outcome on an outsider (an organization or a decision maker), they are more likely to channel the negative emotions outward. Behaviors such as retaliation and aggression are often the result of expression of negative emotions.

Although there is theoretical support for suggesting attribution as a mediator of justice effects on outcomes, other scholars ponder whether attribution can act as a moderator in regard to justice perception and outcome relationship. For example, in Greenberg and Alge's (1998) view, attribution represents the cognitive appraisal people make about unfair experience. The methods people choose to restore equity are moderated by the attributions they make about the unfair experience. Chory-Assad and Paulsel's (2004) study of student deviant behavior in the classroom demonstrated that students use information from other students to clarify and reinforce who they perceive to be responsible for the unfairness before they make decisions to aggress. The attribution students made about the instructor's fairness (measured by social cues in the study) interact with perceptions of unfairness to predict aggression.

To understand the mechanism as to how attribution affects justice effects, researchers may incorporate attribution in models of justice and deviance and conduct empirical testing to validate the possible relationships. I believe that this psychological mechanism holds much promise in advancing our understanding of the dynamics of workplace deviance.

Legitimacy. Legitimacy refers to the congruence of organizational activities and social values (Dowling & Pfeffer, 1975). Colquitt and Greenberg (2003) suggest that justice judgments can influence work outcomes through the mechanism of legitimacy. The authors note tht employees' compliance to the authorities stems not from external rewards or punishments, but from internal beliefs and expectations that the authorities are legitimate. In a review of several studies investigating the relationship between procedural justice and perceptions of legitimacy, Lind and Tyler (1988: 209) note that procedural fairness appears "to allow authorities to make unpopular decisions in a way that does not undermine their legitimacy as authorities." Since fairness norms are deeply embedded in the social life, the legitimacy of organizations requires that employees consider their organizations and authorities fair and just. To the extent that organizations treat their employees fairly, they will be perceived to be legitimate because they conform to social norms. In contrast, unfair practices, either by organizational allocation, or decision making procedures, or personal interaction, will decrease the level of legitimacy perceived by employees, and consequently illicit incompliance, such as deviant behaviors. Therefore, the path between justice, legitimacy, and deviance provides another promising avenue for researchers to unveil the justice-deviance relationship.

Trust. One variable that has received extensive research interest in organization behavior but has yet to draw attention in deviance research is trust. Trust refers to confident positive

expectations regarding another's conduct and has received much research attention in recent years (McAllister, 1995). To date there is empirical evidence suggesting that trust serves as an intervening mechanism between justice and some key work outcomes. For example, Konovsky and Pugh (1994) found, among a U.S. sample, that trust in one's supervisor mediated the relationship between procedural justice and OCB. Dolan, Tzafrir, and Baruch (2005) showed similar results, among an Israeli sample, that trust partially mediates the relationship between procedural justice and OCB. Further, Aryee, Budhwar, and Chen (2002) measured two dimensions of trust: trust in organization and trust in supervisor, among 179 dyads of full-time employees of a public sector organization in India. They found that trust in the organization mediated the relationship of all three types of justice on job satisfaction, turnover intentions, and organizational commitment. Trust in the supervisor mediated the relationship between only interactional justice and performance and both organizational and supervisor directed forms of OCB. In another study, De Cremer, van Dijke, and Bos (2006) examined the effect of a leader's use of procedural justice on followers' sense of organizational identification (OID), affect-based trust and cognition-based trust. Results of their survey, conducted in the Netherlands, found that procedural justice positively affected OID and both types of trust. Further, affect-based trust mediated the relationship between procedural justice and OID. These studies highlight the importance role of trust in channeling the justice effect on positive employee attitudes.

Although research has been fruitful in examining the effect of trust on other key organizational relations, little research has explored the role of trust in the justice and deviance domain. Both deviance and trust involve social exchange relationships. It is logically to expect a negative relationship between trust and deviance. Specifically, distrustful communication from

the organization and supervisor to the employee may instigate negative feelings and actions, and lack of trust in the organization and supervisor is likely to result in deviance. If we apply the existing research framework to the employee deviance domain, we should expect trust to mediate the effect of justice on deviance. Research would need to theorize and test the specific paths of how the mediating effect occurs. Would we see a clear distinction that trust in the organization mediates the effect of procedural justice on organizational deviance, and trust in the supervisor mediates the effect of interactional justice on interpersonal deviance? What role does affect-based trust versus cognition-based trust play in the justice-deviance relationship?

Conclusions

In this paper, I provide a comprehensive review of research on the relationship between organizational justice and deviant workplace behaviors. My goal is to summarize currents trends in this research area, to highlight the research challenges and questions that remain, as well as to suggest future research to address these challenges and questions. To recap, several issues emerged from this review. First, justice theories are an effective framework for predicting deviant behavior. This is evident by the fact that models proposing main effects of justice on deviant behaviors have mostly received empirical support. In other words, a significant relationship between unfairness and deviance is well validated. As a result, there is little need for organizational behavior research to continue conducting simple empirical tests of the basic link between justice and deviance.

Second, research has continued to extend models to test a number of factors that also affect the occurrence of deviance. These factors include both situational and individual

characteristics. Most of them serve as moderators or boundary conditions to influence the justice effects on deviance. It is encouraging to observe more and more comprehensive models being proposed and tested. Their findings greatly enhance our understanding of the dynamism between fairness perceptions, work environment, and personal characteristics, in predicting deviant behavior. Nevertheless, investigations of boundaries conditions are in the developing stage.

Much more work is needed to extend such research.

Third, research has largely ignored the mediating factors that could possibly channel the justice and deviance relationship. There is little empirical research examining how employees' fairness perceptions influence subsequent negative work behavior through the mediating mechanism. Many studies established the associations between justice and deviance by measuring both variables, without studying the process link between these constructs. Colquitt and Greenberg (2003) acknowledge that, in general, there is a lack of study of intervening variables in justice research, which impedes the advancement of justice theories research. It is evident that such a problem also prevails in the justice and deviance research. To date, we do not possess comprehensive theoretical frameworks to guide fine-grained predictions; neither do we have an adequate amount of empirical investigations that render us the fidelity to reach unambiguous conclusions. These remain a major challenge facing future organizational behavior research. I suggest future research explore a variety of situational and individual factors that explain and predict workplace deviance and to integrate them into the general framework of justice deviance.

In conclusion, research is still in its exploratory stage in understanding the complex process of how and why justice perceptions are connected to deviant behavior, and whether

justice dimensions have different levels of associations with various behavioral outcomes. If so, which has the strongest unique effects on certain outcomes? In order to understand and to resolve this discrepancy, research is in dire need of more in-depth theoretical development and empirical testing. Building better theory to advance justice and deviance research requires the inclusion of moderators and mediators in research models. Because the same kind of injustice experience may direct people toward different venues in different situations, knowledge about the boundary conditions will help us better understand when a specific form of deviant response will be most likely to occur; and knowledge of the intervening mechanisms will help us better understand why and how fairness perceptions are related to different outcomes. Such knowledge would also have practical benefits for organizations to design interventions to improve justice perceptions and behavioral outcomes effectively (Colquitt & Greenberg, 2003).

Last, I present various research avenues to facilitate the research on the justice-deviance relationship, and explain why these avenues possess the potential to advance our understanding on this topic. Some variables, such as personality, trust, attribution, organizational structure, ethics, and national culture, have received some attention and support in justice research. Some other variables, such as justice information and perceived powerlessness, also hold promising potential. Although no empirical evidence is available in the literature, their theoretical foundation indicates the possible contribution they may make in future studies.

To my knowledge, this is the first comprehensive review focusing on the justice and deviance relationship. In all, I hope my paper can serve to encourage future research in this promising research area.

Table 1 Empirical Studies on Justice-Deviance Relationships

Outcome (# of studies)	Justice Predictors	Other predictors	Authors
	IJ	Organizational commitment, absence norm	Gellatly, 1995
Absenteeism (3)	DJ, PJ	Power distance was a moderator	Lam et al., 2002
	DJ	Financial need was a moderator	Shaw & Gupta, 2001
Team Absenteeism (1)	PJ climate level	PJ climate strength was a moderator	Colquitt et al., 2002
Incivility (1)	DJ	Job satisfaction, work exhaustion	Blau & Andersson,
	(PJ and IJ not sig.)		2005
	PJ	Personal assertiveness	Adams-Roy &
Sexual Harassment (2)	(IJ not sig.)		Barling, 1998
	PJ	Gender socialization	Rudman et al, 1995
Sabotage (1)	DJ, PJ, IJ	Powerlessness, frustration, facilitation of work, boredom/fun	Ambrose et al., 2002
Theft (2)	PJ x IJ	Theft	Greenberg, 1990, 1993
Vandalism (1)	Equity	Perceived control was a moderator	DeMore et al, 1988
	DJ, PJ, IJ	negative affectivity	Aquino et al., 1999
Workplace Deviance (4)	IJ	Trait hostility was a moderators, job satisfaction was a partial mediator	Judge et al., 2006
	DJ, PJ, IJ	Sociality and impulsivity were moderators between IJ and deviance	Henle, 2005
Negative creativity (1)	Fairness (DJ & PJ)	None	Clark & James, 1999
Counterproductive	DJ, PJ	Negative emotion was a mediator, task autonomy was a moderator	Fox et al., 2001
Behavior (2)	DJ, PJ, IJ	Trust propensity and risk aversion were moderators	Colquitt et al., 2006

Outcome	Justice Predictors	Other predictors	Authors
Outcome	Justice I Teuletois	Other predictors	Aumors

	DJ x PJ x IJ	None	Skarlicki & Folger, 1997
Organizational	DJ x PJ x IJ	Negative affectivity and agreeableness were moderators	Skarlicki et al., 1999
Retaliatory Behavior (5)	IJ	Self esteem and social cues were moderators	Burton et al., 2005
	IJ	Social cues was a moderator	Jones & Skarlicki, 2005
	DJ x PJ x IJ	Trait anger was a moderator, state anger was a mediator	Goldman, 2003
Legal claim (1)	РЈ	National culture was a moderator, organizational identification was a mediator	Blader et al., 2001
	PJ climate	PJ climate was a moderator between power status and revenge	Aquino et al., 2006
Revenge (2)	PJ, DJ not sig. PJ x DJ not sig.	none	Chory-Assad & Paulsel, 2004
Workplace Aggression (2)	PJ, IJ, DJ not sig. DJ, PJ, IJ	Alcohol consumption, history of aggression were moderators None	Greenberg & Barling, 1999 Kennedy et al., 2004
Workplace Violence (1)	PJ climate	Societal violence was sig. predictor	Dietz et al., 2003
Withdrawal (1)	IJ PJ & DJ not sig.	None	Barling & Phillips, 1993

Table 2 List of Literature Search Key Words and Search Results

Organizational justice or fairness in combination with keywords:

Yielded relevant results (15)	Yielded overlapping, not-relevant, and/or no results (17)
Absenteeism	Abusive supervision
Counterproductive behavior	Antisocial behavior
Incivility	Negative work behavior
Organizational violence	Workplace abuse
Legal claim	Workplace cynicism
Racial or sexual Harassment	Dysfunctional behavior
Retaliation	Threaten
Revenge	Embezzlement
Sabotage	Kickback
Theft	Gossip
Vandalism or vandalize	Dishonesty
Withdrawal	Lying or lie
Workplace aggression	Destruction or destructive behavior
Workplace deviance	Insubordination
Workplace violence	Rumor
	Gridlock
	Tardiness

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CHAPTER TWO: JUSTICE AND DEVIANCE: THE ROLE OF ORGANIZATIONAL STRUCTURE, POWERLESSNESS, AND INFORMATION SALIENCE

Abstract

Despite the prevalence of structural influence in organizations, research in the area of organizational justice and workplace deviance has largely ignored the possible effect of structure, and how structure exerts its influences on the relationship between justice and deviance. In this paper, I propose a model of organizational justice and workplace deviance across both individual and organizational levels. Specifically, I propose that two key characteristics of structure—centralization and organicity will influence the relationship between justice and deviance through employee perceived powerlessness and information salience. Specifically, centralization influences perceived powerlessness among employees, organicity influences information salience about each type of justice. I also propose that powerlessness will partially mediate the relationship between centralization and workplace deviance.

Introduction

As the "dark side" of organizational behavior, workplace deviance causes enormous social and economic losses to organizations and their members (Bennett & Robinson, 2003, Vardi & Weitz, 2004). Given its prevalence and costs, workplace deviance is one of the most serious problems facing organizations today (Bennett & Robinson, 2003). Research on the nature and causes of workplace deviance has identified organizational justice as a significant predictor of deviance (Bennett & Robinson, 2003). Organizational justice refers to employees' perceptions of fairness in the workplace and has a significant influence on individuals' motivation and performance at work (Cropanzano & Greenberg, 1997). Research on organizational justices indicates that employees use their fairness experience to evaluate their relationships with their employers. Fairness principles serve to fulfill multiple needs of employees including economic benefits, status/esteem from others, and living a virtuous life (Cropanzano, Byrne, Bobocal, & Rupp, 2001). Injustice threatens basic human psychological needs for control, belonging, selfesteem, and meaning. When events occur to threaten or violate an individual's view of fairness, not only do they experience psychological distress, they are oftentimes motivated to act upon such events in an effort to bring closure. As such, employee researchers suggest that deviant behaviors are reactive responses to the unfair treatment employees perceive, or experience, in their work life. That is, when employees feel that they are treated unfairly, they tend to experience feelings of anger, outrage, frustration, and a desire for retribution (Bies & Tripp, 1996; Greenberg, 1990). Under certain circumstances, negative feelings can transform into deviant acts (Robinson & Bennett, 1995). A rich body of research, both theoretical and empirical, demonstrates that workplace deviance is a reaction to the unfairness perceived by

employees in their relationships with employers (e.g., Ambrose, Seabright, & Schminke 2002; Aquino, Lewis, & Bradfield, 1999; Skarlicki & Folger, 1997).

Researchers further note that justice judgment is a social phenomenon and that its effects are influenced by its social context. Colquitt and Greenberg maintain that "justice perceptions are socially constructed, derived from a complex process of social comparison and normative influences" (2003: 198). In particular, Ambrose and Schminke (2001) indicate that the fact that different procedural rules prevail in different situations is embedded in procedural justice theories. The authors analyze each of Leventhal's (1980) six procedural justice rules people use to make fairness judgments and conclude that the application of justice rules are highly contextually specific. For example, they suggest that a mechanistic organizational structure is more relevant than an organic organizational structure when employees apply five of Leventhal's rules—consistency, bias suppression, accuracy, correctability, and representativeness.

Interactional justice concerns issues of truth, freedom, and human dignity that transcend the decision-making or exchange domain (Bies, 2001). As interactional fairness perceptions are formed through an individual's everyday social encounters in the organization, it is inherently susceptible to its social context.

Although research recognizes the importance of fairness perceptions on employee workplace deviance, and that both individual factors and organizational context together should account for a greater amount of variance in workplace deviance than either factor alone (Bennett, 1998; Robinson & Greenberg, 1998), researchers know surprisingly little about how contextual situations impact the effects of fairness perceptions on behavioral outcomes. Researchers argue that, as a key element of organizational context, organizational structure can affect fairness perceptions by determining such factors as power distribution, participation in policies,

formalization of rules and regulations, as well as communications and social interactions (Schminke, Ambrose, & Cropanzano, 2000). Structural differences between organizations can provide varying amounts of participation in decision making, can dictate control and sanctioning mechanisms (Blau, 1957), and can increases employee empowerment through the expansion of due process (Conger & Kanungo, 1988), all of which can affect employee's work performance. Prior research has shown that organizational structure can lead to employee deviance (e.g., Kemper, 1966; Taylor & Walton, 1971) as well as moderate the relationship between justice and social exchange relations between the employee and the organization (Ambrose & Schminke, 2003). However, there is a lacking of research on the role of structure in the area of justice and deviance.

The goal of this paper is to fill in this gap by adopting a contextual perspective to examine the effects of justice on the occurrence of deviance. The basic tenet is that justice effects are subject to the influence of different structural characteristics, as are most other organizational perceptions, attitudes, and behaviors. The nature of such influence can be broken down into two specific research questions:

- 1. What is the role of structure in the area of justice and deviance?
- 2. What are the underlying mechanisms through which the effects of structure occur?

To answer these questions, I propose a model that integrates structural context in justice and deviance research. I first introduce the concepts of organizational justice and workplace deviance. Then, based on current literature, I elaborate and predict the effects of justice perceptions on workplace deviance. Next, building on research in the areas of structure, work control, and information processing, I address the above two research questions in details.

To better understand the nature of structure, I focus on two critical structural characteristics. One is a fundamental dimension of structure: centralization. The other is a more holistic measure of structural systems: organic versus mechanistic (organicity). I propose that each characteristic can lead to a respective condition that moderates the relationship between justice and deviance. The first condition is employees' perceived powerlessness that is rooted in centralization. The second condition is information salience about justice that is influenced by organicity. In other words, powerlessness and information salience serve as two intervening variables through which structure exerts its influence on the relationship between justice and deviance. In addition, based on theories about structure and powerlessness, I also propose that powerlessness mediates the relationship between centralization and deviance.

I present my model in Figure 1 and develop propositions that specify the relationships between these constructs. The model is multilevel and describes how organizational-level factors (i.e., organizational structure) are related to individual-level phenomena (i.e., fairness perceptions and deviant behavior). I draw upon previous research in sociology, social psychology, and organizational behavior to synthesize the links among these constructs.

Justice as a Predictor of Deviance

The Concepts of Organizational Justice and Workplace Deviance

Organizational justice concerns employees' perception of fairness in the workplace and is posited to be a multidimensional construct. Current literature suggests that there are at least three types of justice, which have been labeled as distributive, procedural, and interactional (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). *Distributive justice*

describes the fairness of the outcome allocation. *Procedural justice* represents the process aspect of justice and concerns individual's perceptions as to the fairness of formal procedures which govern decisions. *Interactional justice* captures the fairness perceptions of the personal interactions when the procedure or outcomes are carried out. Interactional justice includes two sub-components: interpersonal and informational. The *interpersonal* aspect reflects the social sensitivity (e.g., politeness, dignity, and respect) rendered by authorities. The *informational* aspect reflects the extent to which decision makers explain and provide adequate justification for their decisions (Greenberg, 1987).

Workplace deviance includes a wide range of negative work behaviors, from subtle expressions of rebellion, such as gossiping and taking unapproved breaks, to more aggressive actions, such as aggression and violence (Bennett & Robinson, 2003). Robinson and Bennett (1997: 6) define workplace deviance as "voluntary behavior that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both." *Organizational deviance* includes acts directed against the company or its systems, whereas *interpersonal deviance* consists of acts that inflict harm upon specific individuals. The distinction between organizational and interpersonal deviance has been empirically validated in a number of studies (e.g., Aquino, Galperin & Bennett, 2001; Aquino, Lewis & Bradfield, 1999; Bennett & Robinson, 2000; Liao, Joshi, & Chuang, 2004). A recent meta analysis further supported the distinction (Berry, Ones, & Sackett, 2007).

The justice approach to deviance proposes that workplace deviance is a reaction to the unfairness perceived by employees in their organizational life. Considerable empirical evidence shows that perceived unfairness is associated with various destructive behaviors operationalized as workplace deviance (Aquino, et al., 1999), employee theft (Greenberg, 1990; 1993; Sieh,

1987), sabotage (Ambrose et al., 2002; Analoui, 1995), retaliation (Skarlicki & Folger, 1997), vandalism (DeMore, Fisher, & Baron, 1988), revenge (Bies, Tripp, & Kramer, 1997), property destruction (Allen & Greenberger, 1980), dishonesty (Lewicki, Poland, Minton, & Sheppard, 1997), workplace aggression (Greenberg & Alge, 1998; Neuman & Baron, 1998), and violence (Folger & Baron, 1996). Below I will discuss the relationship between each type of justice and both forms of deviance in detail and develop my propositions.

Distributive Justice and Deviance

Distributive justice focuses on the judgment of an unfair or unfavorable outcome (e.g., lack of pay raise and promotions, or opportunities for training). It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963), defined as the attempt to increase the level of reward in order to compensate for an outcome that was deserved but not received (Greenberg, 1996). Studies show that inequity in resource allocation is a primary motive for various types of deviant acts, and the target could be both the organization and other individuals. For example, based on equity theory (Adams, 1965) and the theory of relative deprivation (Crosby, 1984), Aquino et al. (1999) hypothesized that distributive injustice would predict interpersonal deviance, but not organizational deviance. They rationalized that, when making attributions about unfair outcomes, people tend to blame individuals rather than systems because they either lack sufficient information to question, or they do not wish to question, the system. Their study results supported the hypothesis.

Other scholars emphasize the importance of organizational context in forming distributive justice judgments because perceived fairness of outcomes is an integral part of organizational context (Cohen-Charach & Spector, 2001). Due to its focus on outcome fairness,

distributive injustice was found to significantly relate to actions that are effective in restoring equity. Research on pay systems provides solid evidence that people's reaction to pay inequity often triggers deviant behavior such as theft (Greenberg & Alge, 1998), one that targets the organization's property.

Therefore, there are reasons to believe that the attempt to restore equity could affect behaviors that take place at both the organizational and individual levels. Distributive justice can be considered as a structural construct because resource allocation is primarily determined by organizational systems and policies. Meanwhile, because a supervisor has a direct line of authority over the employees, they are often perceived as the source of distributive fairness. When employees perceive unfair distribution, it is likely that either the organization or the supervisor, or both, could be the victim of their retaliatory actions.

Procedural Justice and Deviance

Two models of procedural justice explain the importance of fair procedures on people's fairness perceptions and outcomes (Lind & Tyler, 1988; Tyler, 1987). First, the self-interest or instrumental model asserts that process control is seen as influential in achieving favorable outcomes. By controlling procedures, individuals can maximize the favorability of expected outcomes in the long term. The second model, the group-value or relational model (Tyler, Degoey, & Smith, 1996; Tyler & Lind, 1992), proposes that a fair procedure indicates one's positive, full-status relationship with authority and group members, and thus has implications for a person's self-esteem and identity.

Research has shown that procedural justice can have a strong impact, independent of distributive justice, on a variety of attitudinal and behavioral outcomes (Colquitt, Conlon,

Wesson, Porter, & Ng, 2001). Deviant behaviors motivated by procedural injustice could be directed toward both the organization and its members for two reasons. First, organizations are viewed as the source of justice or injustice because they establish formal rules and policies that regulate people's behavior and dictate the allocation of outcomes. In effect, if individuals perceive that the rules and regulations are inequitable, they may feel that it is impossible to get fair outcomes for their performance input. As such, they may retaliate against their employing organizations. Second, scholars (e.g., Aquino et al., 1999) note that when making attributions about the unfair outcomes, people tend to blame individuals rather than systems because they either lack sufficient information to question, or they do not wish to, question the system. Meanwhile, because a supervisor has a direct line of authority over the employee, they are often perceived as the source of unfair treatment. Therefore, responses originated in procedural injustice could also result toward the supervisor.

Empirical studies provide some support for the effect of procedural justice on deviant behaviors that target both the organization and its members. For example, in a few studies that specifically explored the unique effects of justice components on different forms of deviant behavior, Ambrose et al. (2002) showed that when employees perceive procedural injustice, they tended to sabotage their organization. Greenberg and Barling (1999) showed that procedural injustice motivated employees' aggression against their supervisors. Yet Aquino et al. (1999) failed to find support for the predicted effect of procedural injustice on organizational deviance. In other studies, researchers showed that procedural injustice plays a significant role in predicting various behaviors including workplace deviance (Henle, 2005), negative creativity (Clark & James, 1999), counterproductive behavior (Colquitt, Scott, Judge, & Shaw, 2006; Fox, et al., 2001), organizational retaliatory behaviors (Blader, Chang, & Tyler, 2001; Skarlicki &

Folger, 1997), revenge (Chory-Assad & Paulsel, 2004), and workplace aggression (Kennedy, Homant, & Homant, 2004). Based on previous research, it is expected that procedural justice should be related to deviant behaviors that target both the organization and its member.

Interactional Justice and Deviance

Interactional justice focuses on the quality of the interpersonal treatment people receive during the implementation of procedures (Bies & Moag, 1986). Interactional justice was initially suggested to be an important predictor of responses to judgments about the supervisor and coworkers. However, investigations show that, beyond the person-focused outcomes such as conflict, low performance, and poor attitudes (Folger & Cropanzano, 1998), it has notable ability in predicting behavioral outcomes including organizational citizenship behaviors (OCBOs), withdrawal, and negative reactions (Colquitt et al, 2001). As an intermediate step between the enactment of organizational procedure and the decision, interpersonal concerns may be more salient to individuals when they form judgments of fairness than either the outcome or the structural characteristics of the procedure. For example, Bensimon (1994) reported that a rigid, authoritarian workplace could frequently contribute to workplace violence. In his report, disgruntled workers who became violent reported that the dehumanizing way the action was carried out compelled their actions, rather than the fact that they were demoted, terminated, or laid off. In another study, Mikula, Petri, and Tanzer (1990) investigated the systematic differences of justice evaluations on negative incidents. They found that violation of interactional justice was relevant to all types of relationships. Their results suggest that people attach more importance to violations of interactional justice than they do to violations of procedural or distributive justice.

Although supervisors are often considered to be the source of interactional injustice, as they can determine the quality of interpersonal treatment (Cropanzano, Prehar, & Chen, 2002), employees who feel unfairly treated by their supervisors do not always take hostile actions against them due to potential sanction (Skarlicki & Folger, 1997). Due to their agent role, supervisors can be perceived as a source of organizational-referenced injustice as well (Ambrose, et al., 2003; Aquino et al. 1999; Rupp & Cropanzano 2003). Further, interactional injustice is more likely to provoke the most intensive emotional and behavioral response of all the types of injustice (Bies & Moag, 1986). Not only do victims of interactional injustice engage in behaviors that help even the score with the offender (Folger & Cropanzano, 1998), but also their goal is to express anger, outrage, or frustration (Robinson & Bennett, 1997), regardless of the instrumental value or the target of such actions.

Taken together, research strongly indicates that perceptions of injustice are associated with negative work behaviors. Although evidence is less clear with regard to the specific link between the source of injustice and the target of deviance behavior, there is ample evidence suggesting that justice perceptions are linked to workplace deviance that is directed toward both the organization and its members. Therefore,

Proposition 1a: Distributive justice is negatively associated with organizational deviance and interpersonal deviance.

Proposition 1b: Procedural justice is negatively associated with organizational deviance and interpersonal deviance.

Proposition 1c: Interactional justice is negatively associated with organizational deviance and interpersonal deviance.

Organizational Structure as a Contextual Determinant

Organizational structure refers to an organization's internal pattern of relationships, authority, and communication (Thompson, 1967). It is considered the enduring allocation of work roles and administrative mechanisms that allow organizations to conduct, coordinate, and control their work activities (Jackson & Morgan, 1982). Organizational structure provides a social context in which individuals acquire and process social information, activate cognitive activity, and develop social interactions and interpersonal relationships (Galbraith, 1973). Structure influences information flow as well as the context and nature of human interactions (Miller, 1987). Social interaction and interpersonal relationships, in turn, have the ability to influence employees' productivity efficiency, turnover, and work satisfaction (Blau, 1964).

The impact of organizational structure on employees' work control, information processing, and social interactions should have significant implications on justice and its outcomes. Research has demonstrated that structural differences could produce systematic difference in employees' attitude and behavior such as job satisfaction, organizational commitment, performance, (Adler & Borys, 1996), morality (Hetherington & Hewa 1997), and work alienation (Kakabadse, 1987; Markowitz, 1987). However, investigation as to the role of structure in the justice-outcome relationships has been scarce. One exception is the study conducted by Ambrose and Schminke (2003). The authors hypothesize that organizational structure can moderate the relationship between procedural justice and interactional justice and their respective social exchange relationships. They argue that in mechanistic settings, procedural justice becomes the norm by which individuals evaluate organizational fairness, whereas in organic settings, interpersonal influences should increase the weight of interactional

justice in individual outcomes. Based on data collected from 506 individuals from 98 departments of 64 organizations in a variety of industries, they show that under mechanistic structural conditions, procedural fairness has a stronger relationship with employees' perceived organizational support, compared to conditions found in organic settings. Under organic structural conditions, interactional justice has a stronger relationship with employees' trust in their supervisors, than in mechanistic organizations.

The Ambrose and Schminke (2003) study represents an important first step in understanding the role of organizational structure with regard to the relationship between fairness perceptions and key outcomes. Based on the findings, the authors call for more in-depth research to understand the mechanism by which the interaction effect occurs. In this paper, I extend their framework to include deviance as the outcome of interest. I further propose that employees' perceived powerlessness and information salience about each type of justice are two intervening mechanisms that channel the effects of structures on the justice-deviance relationship. A corollary proposition is that powerlessness will partially mediate the relationship between centralization and deviance.

The Role of Centralization and Powerlessness

Centralization

Centralization refers to the formal hierarchy where power is concentrated or distributed within an organization (Daft & Macintosh, 1984). It consists of two subdimensions—participation in decision making and authority of hierarchy (Hage & Aiken, 1966). Participation in decision making refers to the extent to which employees make decisions on their task arrangements. Hierarchy of authority describes who reports to whom and the span of control for

each manger (Daft & Macintosh, 1984). A centralized structure is characterized by low levels of participation in decision making and high levels of hierarchy of authority (Hage & Aiken, 1966). Although a high level of centralization is efficient in coordinating decision making in top management, the hierarchy tends to impede personal interactions among organizational units or groups.

Organicity

Organicity describes two fundamental forms of organizational structure along a continuum of mechanistic and organic (Burns & Stalker, 1961). In mechanistic organizations, power is centralized in the hands of top managers, communications tend to be top-down, with employees following formal instructions and regulations in their task operations. In addition, tasks are standardized and specified, and formal rules and regulations dominate decision making. In contrast, in organic organizations, employees have a high level of decisional autonomy and control of their activities, communication channels are open and more flexible, and formal rules and regulations give way to adaptability in facilitating employees to accomplish goals (Burns & Stalker, 1961; Courtright, Fairhurst, & Rogers, 1989; Khandwalla, 1977). Research has shown that organic and mechanistic structures interact with different contingent variables to influence various organizational outcomes (Donaldson, 1996).

Centralization and Workplace Deviance

Research in sociology suggests that deviance is to some extent a product of the organization and its structure because workplace deviance is conduct that is subject to rules and norms designated by organizational authority (Kemper, 1966). Certain structural configuration can have a direct effect on workplace deviance (Black, 1993; Kemper, 1966; Taylor & Walton

1971; Tucker 1999). According to a general theory of social control, workplace deviance can be a means by which employees exercise work control and is most frequent when the structure of social relations in the workplace are unequal and highly stratified (Black, 1993; Tucker, 1999). Specifically, deviant acts such as violence, sabotage, theft, and withdrawal would vary directly with the extent of inequality and social distance between superiors and subordinates (Black, 1993). In other words, structures that create large power distance and minimize employee work control should be more likely to motivate workplace deviance.

In centralized organizations, decision-making power is concentrated at the top regarding issues like policy making, hiring, and promotion in the department. Social relations are characterized as hierarchical so that power emanates from those who control resources and make decisions. Such characteristics tend to create a high level of power asymmetry and social distance in organizations. Scholars recognize that a rigid hierarchy and lack of participation in decision making can undermine worker's freedom, autonomy, individuality and authority (Weber, 1978). Research in individual-organization relationships illustrates a positive relationship between low levels of structure (e.g., organic social system design and complex job design), opportunity to exercise personal control, and employee affective, motivational, and behavioral responses. In contrast, research also shows the adverse effects of centralization on individual outcomes such as job satisfaction, organizational commitment, employee morale, job stress, absenteeism, and turnover intention, in a variety of settings. For instance, Greenberg and Grunberg (1995) reported a positive association between low job autonomy and lack of participation in workplace decision making, as well as low job satisfaction and alcohol drinking problems among 1,247 production workers. Dolch and Hefferman (1978) found a strong relationship between participation in decision-making and job satisfaction in welfare agencies.

Brooke and Price (1989) tested a causal model of absenteeism among 425 full-time employees of a medical center and reported a significant negative effect of centralization on absenteeism. In addition, meta-analysis (Loher, Noe, Moeller, & Fitzgerald, 1985) showed a strong, consistent relationship between employee autonomy and job satisfaction (coefficient = .46).

Consistent with the observation that control plays an important role in the work environment structure and employee response relationship, the extant job design literature confirms a positive relationship between autonomy at work and positive attitudes and behaviors on the part of employees. For instance, Dwyer and Ganster (1991) and Karasek (1979) note that these relationships are due in large part to the degree of control that job autonomy provides employees. Because participation in decision making provides increased opportunities for employees to exercise control and to voice their views and concerns, employees are more likely to develop a sense of power and control. Piece, Gardner, Dunham, and Cummings (1993) found a positive relationship between employee participation in job context decisions and their experienced control. In a longitudinal field observation, Analoui (1995) found that excessive managerial control and employee lack of autonomy are among the direct causes of deviant behaviors.

Scholars also indicate that if employees are unhappy at work, they are more likely to engage in deviant workplace behavior. For example, Judge, Scott, and Ilies (2006) showed that job satisfaction was negatively related to workplace deviance. In other studies, job dissatisfaction was found to be related to increasing chronic lateness and unexcused absences (Blau, 1985; 1994). Low affective occupational commitment was found to be related to lateness and absence (Meyer, Allen, & Smith, 1993). Negative work affect was also proposed to increase the probability of an incivility spiral (Andersson & Pearson, 1999).

Given the impact of centralization on important issues such as social relations, power distribution, and reward systems in the workplace, as well as previous findings indicating a negative relationship between centralization and job attitudes and affect, I extend the research to explore the direct effect of centralization on workplace deviance. I expect that the instances of workplace deviance will be more likely to occur in organizations with centralized structures than in organizations with decentralized structures.

Proposition 2a: The lower the levels of employee participation in decision making (more centralization), the higher the likelihood of workplace deviance (organizational and interpersonal).

Proposition 2b: The higher the levels of hierarchy of authority (more centralization), the higher likelihood of workplace deviance (organizational and interpersonal).

Centralization and Powerlessness

Research points toward a positive link between traditional bureaucratic structure and a high level of perceived powerlessness among employees. Seeman (1959: 784) defines powerlessness as "the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks." Within the work environment, powerlessness is postulated to occur when an employee feels a lack of job autonomy in the discharge of their duties and daily tasks (Aiken & Hage, 1966). Organizational structure can diminish employees' sense of control and autonomy because it is an important source of power within organizations. As Pfeffer (1991) argues, power is primarily a structural phenomenon because structure imposes the ultimate constraints on individuals. This implies that employee's sense of powerlessness is embedded in the formal structure of the organization.

In organizations with a centralized structure, power generally accrues to those individuals in key positions who have control over resources such as information, money, network, and rewards (Courpasson, 2000). A centralized structure can facilitate the accumulation of personal and organizational sources of power to people high in the organizational hierarchy, thus creating a class of powerless individuals. In a highly centralized organization, workers tend to have little, or no, responsibility for planning, controlling, issuing orders, hiring, and firing (Argyris, 1971). As a result, employees tend to think that decision making is restricted to the upper levels of the organization, and thus may perceive little personal control. Such a situation has the effect of fostering and reinforcing a sense of powerlessness (Markowitz, 1987), and results in detrimental effects such as absenteeism and goldbricking (Argyris, 1971).

A number of studies demonstrate that centralization can impact workers' perceptions of powerlessness. Blauner (1964) found that in industries characterized by employees having little control over the conditions of employment, workers express high level of powerlessness. In a study of employee alcohol misuse, Markowitz (1987) found that a centralized organization significantly contributed to the development of powerlessness among 293 full time employees from 11 diverse organizations. Pearlin (1962) showed that a rigid hierarchical structure, and impersonal authority relations, exacerbate subjective powerlessness among nurses of a large mental hospital. In addition, Kakabadse (1986) found that centralized and formalized organizational structures were characterized by powerlessness among professional personnel working in nine social services organizations in England. Specifically, lack of participation in decision making concerning organizational policies and work assignments led to job and career dissatisfaction. Hence, I propose that employees perceived powerlessness is influenced by the level of centralization, as follows:

Proposition 3a: The lower the levels of employee participation in decision making (more centralization), the higher the levels of perceived powerlessness.

Proposition 3b: The higher the levels of hierarchy of authority (more centralization), the higher the levels of perceived powerlessness.

Powerlessness and Deviance

Research in sociology has long been interested in individuals' perceptions of powerlessness and its effect on social and work deviance. Literature indicates that employees' perceptions of powerlessness emanate from a lack of control over the work environment (Ashforth, 1989) and imply a sense of low self-efficacy (Kohn, 1976; Seeman, 1959), low self-esteem, and a diminished sense of autonomy and responsibility (Umiker, 1992). Such a situation can instigate deviant acts intended to ameliorate the negative experience (Black, 1984). As Bennett and Robinson (2003: 257) note, powerless workers may engage in deviant acts as a "cathartic or corrective means to restoring control over his or her environment."

The idea that deviance is a behavioral attempt to secure power and control is captured by reactance theory (Brehm, 1966) in psychology and the general theory of social control in sociology (Baumgartner, 1984; Black, 1984). Reactance theory proposes that people value the freedom of choice of their actions. When facing a threat of loss of control, people react with attempts to regain control. As the potential for loss of control becomes severe, the threatened freedom becomes more valuable. As such, reactance responses such as destruction are more likely to occur (Brehm, 1966). Given that power and control tend to be highly valued by individuals, perceptions of lack of control, or powerlessness, are usually regarded as a significant threat to freedom. Therefore, powerlessness may provoke behavioral attempts to secure greater personal control.

According to Black (1984), deviant behaviors—violence, sabotage, theft, and withdrawal—are usually a form of what Baumgartner called "social control from below" (1984: 303). In particular, Black asserts that people use deviance to express their grievances against those of higher social standings and suggests that, the greater the inequality and social distance between superiors and subordinates, the more severe the upward social control.

In modern organizations, the institute and its leaders own and control most of the valuable resources and derive legitimate power embedded within the hierarchy. Because of this, employees are more dependent on the organization and its leaders for valued resources than the organization is on its employees. However, employees can still derive a certain level of power by controlling the effectiveness of job completion (Crozier, 1964). According to Weber (1978), employees possess labor power due to their discretion over the application of their labor capacity and thus form a potential source of resistance or a condition of effective management. For example, Taylor and Walton (1971) note that individuals, especially the powerless, use sabotage as a means to assert some control, even when the work is not necessarily made easier. Their field study showed that one of the primary reasons for the destruction of facilities was that the destruction served as a means for workers to assert control. In view of this, Bennett suggests "individuals who perceived themselves to be powerless over their work environment and who have no legitimate means of regaining control will attempt to regain a sense of control over their environment by engaging in employee deviance" (1998: 225).

The experience of powerlessness has been examined empirically as an antecedent of workplace deviance. For example, in a series of experiments, Allen and Greenberger (1980) show that individuals with low levels of perceived control attempt to exert control over their environment through destruction of the physical environment. Bennett (1998) proposes that

autocratic or punitive management styles are closely related to workplace deviance due to their influence over employees' low sense of self efficacy and personal control. Her survey of 219 full-time workers, in a variety of jobs, revealed that individuals who perceive little control over their environment are more likely to engage in deviant behaviors. In a subsequent longitudinal study among 240 employees, Bennett (1998) showed that empowerment practices, such as granting workers more authority to make decisions about the work processes, was an effective means of reducing workplace deviance. In addition, a recent study by Ambrose et al. (2002) examined an array of motives for organizational sabotage. Powerlessness was found to be the second most common cause of sabotage after organizational injustice. Together injustice and powerlessness accounted for nearly 80% of the sabotage events investigated.

Ashforth (1989: 212) indicates that the so called "bureaupathologies," like absenteeism, tardiness, theft, vandalism, excessive grievance, shoddy workmanship, and counter-productive work group norms, may simply be attempts of the powerless to regain some sense of personal efficacy. Based on a sample of 206 new employees, who were relatively powerless, in a large, multinational telecommunications company, Ashforth and Saks (1996) tested the effect of powerlessness on the process of work adjustment. Results indicate that workers' experiences of powerlessness evoke negative work activities such as disruptive behavior and loss of job involvement. In addition, Crino (1994) observed that employees feel buried and anonymous when they have little input into the policies that affect their daily work lives. Under certain circumstance, sabotage allows those employees to maintain some semblance of control over their work environment. Together, both theories and empirical studies point to the fact that powerlessness can lead to workplace deviance. Therefore, I propose that when employees perceive they are powerless at work, they are likely to engage in deviant work behaviors.

Proposition 4: Powerlessness is positively associated with workplace deviance (organizational and interpersonal).

Centralization, Powerlessness, and Deviance

To this point, I have established that both centralization and powerlessness can lead to workplace deviance, as well as that centralization can influence perceptions of powerlessness among employees. In sum, centralization determines work arrangements, social relations and practices which exert enormous power and constraint over individuals. It also organizes social positions hierarchically so that power emanates from those who control resources and make decisions. In highly centralized organizations, employees tend to perceive low levels of control over their job activities. Among employees who experience powerlessness, deviance is likely to become an alterative means of work control or expressions of grievance. Therefore, it is anticipated that centralized structure will increase perceived powerlessness among employees. With increased feelings of powerlessness, it is more likely that employees will conduct deviant acts as a coping strategy.

Meanwhile, centralization should still have a direct effect over workplace deviance.

Workplace deviance is both cognitive and affective driven (Bennett & Robinson, 2003; Judge et al., 2006, Lee & Allen, 2002). That is, individuals may engage in workplace deviance after a state of psychological distress and cognitive deliberation. It also could be spontaneous as an adaptation to the work environment. Scholars indicate that there are at least three distinct antecedents of workplace deviance. These are reactions to experiences at work, reflections of employees' personality, and adaptation to the social context at work (Bennett & Robinson, 2003). Work environment can elicit behavioral responses before an individual considers reasons for behaving one way or another. Thus centralization should exert both direct and indirect effects

on deviant behaviors. In other words, perceived powerlessness should partially mediate the relation between centralization and workplace deviance. Therefore, I propose the following:

Proposition 5a: Powerlessness partially mediates the relationship between participation in decision making and workplace deviance (organizational and interpersonal).

Proposition 5b: Powerlessness partially mediates the relationship between hierarchy of authority and workplace deviance (organizational and interpersonal).

The Moderating Role of Powerlessness on Justice and Deviance

So far I have suggested that both centralization and powerlessness can predict workplace deviance; I now turn to explore the possible joint effects of justice and powerlessness on workplace deviance. Both justice and powerlessness are related to the concepts of power and perceived control (Ambrose et al., 2002; Bennett, 1998). Theories of both justice and powerlessness explore, explain, and predict human activities that are motivated by the fundamental needs of control over their social environment. Yet, these two streams of research have focused on distinct aspects of deviance (Robinson & Bennett, 1997). Justice research focuses on the investigation of a single deviant act, such as absenteeism, withdrawal, or theft, and their respective predictors. Sociological researchers examine the general effect of powerlessness in determining societal forms of deviance, but they do not attempt to predict specific forms of deviance, nor do they explain why one type of deviance is more likely to occur than another (Robinson & Bennett, 1997). Integrating these research areas may better facilitate our understanding of the specific path through which structure channels its effect on the justice-deviance relationship.

In my model, I propose that powerlessness can influence the strength of the relationship between justice and deviance. As we know, perceptions of injustice have deleterious consequences for the various fundamental needs of an individual such as their sense of selfworth, social belonging, control, and morality (Cropanzano, Rupp, Mohler, Schminke, 2001). However, the effects of perceived injustice might be less significant if people had, or perceived themselves to have, a certain amount of power within the organization. Individuals with a good sense of control consider themselves relatively influential over policies that are instrumental in acquiring favorable outcomes and respectful relations. Even when they receive unfavorable treatment, their perceived control will likely motivate and allow them to correct the situation through legitimate channels. Practically, a relatively powerful position enables employees to utilize other resources such as control, social status, and higher levels of income that may help to buffer the negative effects of unfair treatment (Schminke, et al., 2002). In contrast, individuals who sense a lack of control consider themselves vulnerable to injustice due to their lack of retributional potential. Compared to their relatively powerful counterparts, powerless employees tend to lack sufficient coping resources. As a result, powerlessness comes to be particularly salient and psychologically significant for employees in dealing with their unfair situations.

The literature shows that power and control could moderate the strength of justice effects on behavioral outcomes. For example, in their study of revenge, Aquino, Tripp, and Bies (2006) suggest that when employees are mistreated, their default impulse is to seek revenge. However, certain circumstances would redirect this impulse toward other coping behaviors. Specifically, higher status, powerful, people are more likely to resort to reconciliation. Yet when the victims have lower status than the offender, and the victims perceive the organizational procedures to be unfair, their response will most likely be revenge. This is because powerless individuals tend to believe taking personal revenge will be more effective and efficient than going through official grievance procedures in seeking retribution. Their field study and laboratory experiment both supported the interaction prediction. In addition, DeMore, Fisher, and Baron (1988) showed that,

among college students, perceived lack of fairness by authorities and low levels of perceived control interacted to predict vandalism.

Therefore, organizational justice provides a mechanism that ensures fair treatment for organizational members at various levels and positions. Violation of justice principles triggers control-based concern. Powerlessness can further intensify feelings of lack of control.

Employees who perceive injustice and powerlessness feel that not only do they receive unfair treatment, but also they have little legitimate power to acquire the results they expect. Under such conditions, they are more likely to take deviant actions as a means of expressing their negative emotions and/or to regain a sense of control. In other words, for employees who experience unfair treatment in their organizational life, perceived powerlessness deprives them of the legitimate means to regain power and resources. As such, deviance becomes one of the last resorts to assert their influence over their environment and over the perceived powerful party. In addition, when the individual is less powerful than the source of the perceived injustice, attempts to restore justice tend to be indirect. Within the existing power relationships in organizations, it is likely that employees will believe deviance is an effective outlet to exercise their power and to restore the balance of justice (Folger & Skarlicki, 1998; Jermier, Knights, & Nord, 1994).

Together, these arguments suggest an interactive effect of organizational justice and perceived powerlessness on employee tendencies to engage in deviant acts. Specifically, the effect of unfairness on deviance should be stronger when perceptions of powerlessness are high rather than low. Therefore,

Proposition 6: Perceived powerlessness moderates the relationship between organizational justice (procedural, interactional, distributive) and workplace deviance (organizational and interpersonal) in such a way that the relationship between organizational justice and workplace deviance will be stronger when employees perceive high levels of powerlessness.

The Role of Organicity and Information Salience

The Effect of Structure on Justice Information Salience

Social information processing theory (Salancik & Pfeffer, 1978) asserts that work attitudes and behaviors are, to a large degree, the result of the processing of information from the social environment rather than individual predispositions. "SIP assumes that individuals are adaptive organisms who change their attitudes, behaviors, and beliefs to their social context and to the reality of their own past and present behavior and situation" (Salancik & Pfeffer, 1978: 226). As a result, Salancik and Pfeffer (1978: 226) argue that individual behavior can best be understood by studying the "informational and social environment within which that behavior occurs and to which it adapts." Ashford and Cummings (1983) also note that individuals are proactive information seekers interested in assessing where they stand and how they are doing with regard to their social and work environment. Hence, an underlying question in the study of organizational fairness is how employees acquire information about how the organization treats them (Moorman, 1991; Skarlicki & Folger, 1997).

Lind and Tyler (1988) suggest that individuals differ in the extent to which they perceive and apply justice principles to different contexts. According to fairness heuristic theory (Lind, 2001; van den Bos et al., 1997), justice judgments are formed based on the context. Individuals develop their perceptions of fairness based on information about outcomes, procedures, and personal interactions. Depending on which type of information they encounter or attend to, it is likely that their reactions toward their fairness experience in organizations would vary accordingly. Social context influences the process of social comparison and interpersonal validation of reality (Greenberg, 1990; Tyler & Bies, 1990, Salancki & Pfeffer, 1978). For

example, people often find it difficult to assess whether their outcome is fair because they do not always have the information about a referent. In these situations, they may use information that is available, or easy to interpret, as a heuristic substitute to assess justice (van den Bos et al., 1997). This proxy could be either the information about procedures or that about interactions with supervisors and coworkers. For example, individuals may rely on supervisor interactions to assess organizational fairness when they do not know much about actual organizational procedures or outcome distribution, or vice versa.

Therefore, justice effects are open to the influence of various contextual variables, including organizational structure. Specifically, contextual factors exert their influence on perceptions and interpretations by directing an individual's attention toward certain information regarding the situation, which makes that information more salient than others (Taylor & Fiske, 1978). Kulik and Ambrose (1992) suggest that organizational contexts influence the relevance of the referent and the availability of information that individuals use to form their fairness perceptions. Umphress, Labianca, Brass, Kass, and Scholten (2003) suggest that the ambiguity of justice concepts makes justice effects open to the influence of social processes such as network relations. Van den Bos (2001) emphasized that contextual information is critical to individuals' fairness judgments and their reactions to the decisions of authority. Using the framework of fairness heuristic theory, Jones and Skarlicki (2005) examined how information from peers affects people's interpretation of, and reactions to, an authority's fairness behavior. Their experiment showed that social cues biased participants" subsequent information processing in the way to moderate the effect of fairness of the authority's behavior to predict retaliation. The results of their study showed that coworkers' opinions influenced employees' perceptions of three types of justice to different extents. Specifically, social ties that convey social support,

affect, and normative information were being accessed when employees form justice perceptions. These arguments and findings indicate that social information and social interactions play an important role in determining people's fairness judgments and their reactions to work outcomes.

It is common in organizations that individuals do not always have, or actively seek, information about all aspects of justice. Instead, salient information, such as those that are available, easy to understand, or those perceived to be relevant or important to one's well-being, may serve as the primary parameter in the evaluation of the relationship employees have at work. If individuals rely heavily on salient information in developing their justice judgments and work behaviors, then it is necessary for us to understand what, and how, contextual situations can enhance information salience about justice components. Previous research explored the possible factors that influence the salience of each type of justice. Leventhal (1980) suggested that different situations may influence the relative weights of different procedural rules. However, he offered few suggestions regarding the specific features of situations that may influence these weights (Gilliland, 1993). Ambrose and Schminke (2001) suggest that a mechanistic organizational structure is more relevant than an organic organizational structure when employees evaluate procedural justice; while an organic structure is more relevant than a mechanistic structure when employees evaluate interactional justice. They (2003) further empirically demonstrated that organic structure strengthened the relationship between interactional justice and supervisory trust, while mechanistic structure strengthened the relationship between procedural justice and perceived organizational support. Gilliland (1993) noted that, when developing fairness perceptions of employment selection systems, different selection practices and individual factors could influence the salience of procedural justice rules

and distributive justice rules. Some of the rules may be more or less important in certain selection situations.

In this paper, I focus on the salience of information about three types of justice, and how structural forms exert influence over salience of such information. In my model, I propose that structural organicity on the organic versus mechanistic continuum can impact the level of information salience regarding each type of justice. Organizational structure provides a social context in which individuals acquire and process social information, activate cognitive activity, and develop social interactions and interpersonal relationships (Galbraith, 1973). As mentioned earlier, Ambrose and Schminke (2003) take the initial step to integrate organizational structure and justice research and empirically demonstrate that organic versus mechanistic context matters in justice-outcome relations. They also raise a concern regarding the lack of understanding about the mechanisms through which structure moderates the justice effect. They speculate that characteristics of justice information, such as relevance or availability, might be the causes. In my model, I suggest that information salience provides such a mechanism. Information salience concerns the importance of justice with regard to people's reactions to perceived unfairness. It concerns the relevance, availability, and understandability of justice information. Below I will address its characteristics and explicitly explore its relationship with organic versus mechanistic structure and its effect on the relationship between justice and deviance.

Organicity and Procedural versus Interactional Justice Information Salience

One of the roles of structure is to provide the information and communication infrastructure for individuals to access their relationship with their organizations. If different structural conditions provide different context for individuals to acquire and process information,

it follows that justice effects can vary by the context through which justice principles are applied. To establish this argument, I will discuss in the following sections how structural conditions influence the salience of justice information in terms of its relevance, availability, and understandability. Then I will discuss how salience of justice information can influence the justice-deviance relationship

Relevance. Relevance of information has to do with norms, values, and expectations in organizations. Injustice perceptions create feelings of resentment among those who are treated unfairly. This resentment occurs not only because of the negativity of the outcomes, but because it often violates important norms regarding the treatment of others. These norms may arise from expectations of prevailing practices (Greenberg, Eskew, & Miles, 1991). Differences in socialization and experiences can cause norms to differ across certain subgroups, which may alter people's expectations for justice and their responses to injustice. Under mechanistic structures, organizations emphasize hierarchical control and establish long-standing formalized practices for employees to follow. Such practices could minimize individual autonomy, as well as limiting employees' decision-making discretion and their personal control over outcomes. In such a context, fair rules and procedures bear important implications to one's sense of control and predictability of his or her work life.

In organic settings, there are fewer constraints as employees have more control over resource allocations and task operations since decisions rest in the hands of employees. For this reason, individuals will rely less heavily on the fairness of the rules and procedures in forming their justice judgments. Instead, with active interaction between individuals, the formulation and implementation of work rules are, for the most part, replaced by personal interactions and personal transactions (Ambrose & Schminke, 2003). As tasks are accomplished mostly through

personal interactions at all levels of the organization, the fairness of personal interactions becomes an important factor in determining organizational and individual outcomes.

Accordingly, employees often choose interactional fairness as an exemplar when assessing the values of the organization and base their attitudes and behavior concerning the organization on this assessment (Umphress et al., 2003). As employees place great emphasis on the quality of interpersonal treatment, information about interactional justice should draw more attention than procedural justice information.

Further, in discussing the effect of structural context on behavior formality in organizations, Morand (1995) suggests that broad structural elements impact patterns of interaction and comportment habitually engaged in by individuals. Specifically, mechanistic organizational forms will generate formal interaction patterns and organic forms will engender informal interaction. In conflict resolution literature, scholars (e.g., Delgado, Dunn, Brown, Lee, & Hubbert, 1985) argue that informal settings allow a wider scope for participants' emotional and behavioral idiosyncrancies. Therefore, participants are more likely to exhibit prejudicial behavior. In contrast, formal settings avoid unstructured, intimate interactions. Instead, formal procedures detail how confrontation is to be managed and thus allow equal opportunity for each party to express their voices in correct manners. Such a situation should make information about procedural justice stand out when employees seek for fair treatment.

For the reasons stated above, in mechanistic settings, procedural justice should become the norm by which individuals evaluate organizational fairness. Information about procedural justice becomes particularly relevant in one's justice judgment (Ambrose & Schminke, 2003).

Availability. Availability of information regarding different aspects of justice differs in mechanistic and organic organizations. People often rely on available information to form

fairness judgments and once they have established a fairness judgment they use this perception to evaluate subsequent events (Van den Bos et al., 1997). Mechanistic organizations provide guidelines that can allow greater clarification of rules and procedures. As such, information regarding procedural rules is readily available for people to follow. In contrast, the decentralized decision making patterns and network-based systems of control found in organic structures diminish the availability of formal rules and procedures. Employees rely largely on continuous social interactions to determine task operations and outcomes. Information about interactional fairness should be more readily available than information about procedural justice.

Understandability. Interactional justice pertains to issues such as respect, dignity, and explanation. Unlike formal rules that are made by an organization's top managers, information about interpersonal treatment comes directly through interactions with organizational agents (Bies & Moag, 1986). In organic structures, employees have ample opportunity to interact with others and thus should find it relatively easy to interpret terms of dignity and respect. An organic structure promotes discussion and negotiation. The seeking of advice is encouraged rather than direct order giving and top-down decision making (Courtright et al., 1989). Hence, an organic structure should display higher levels of mutual communication than mechanistic systems.

Therefore, with the frequency and importance of communication in task issues, along with the absence of clearly documented rules, employees in organic organizations should be in better position to evaluate the fairness of interactions with other organizational members.

In comparison, the emphasis on standardized procedures in a mechanistic structure makes it easier to evaluate the fairness of organizational procedures than it is to assess the fairness of personal interactions. This is not to say that a mechanistic structure will have no effect on

employees' interpretations of interactional unfairness; rather, the concern for personal interactions will be less prominent in mechanistic structures. Taken together, I propose:

Proposition 7a: Mechanistic structure is positively associated with procedural justice information salience.

Proposition 7b: Organic structure is positively associated with interactional justice information salience.

Organicity and Distributive Justice Information Salience

The criteria used to arrive at a judgment of distributive justice mainly concerns outcome equity. Distributive fairness could be a result of outcome favorability, organizational procedures, and interactional conduct (Folger & Cropanzano, 1998). Organic structure also facilitates active interaction between individuals, thereby allowing employees to have more involvement in determining the work outcomes. When resource allocation is localized and negotiable (Courtright et al., 1989), individuals are more likely to perceive the possibility that alternatives are available for reaching a different outcome. Folger (1986) indicates that people are most likely to experience anger and resentment when an alternative means was available to obtain a more favorable outcome. Because organic structures bring employees' attention to the information about the outcome, organic structures could raise the relevance of information about distributive justice. That is, employees should rely heavily on the information about outcome fairness in their judgments.

In organic organizations, employees are granted more autonomy and more control over resources that enable them to initiate and perform a larger number of tasks. Informal structures permit employees direct access to needed information and skills. Because employees have the opportunity to participate in the decision making regarding resource allocation, information

about outcome equity should be relatively available, and easier to understand than in mechanistic structures.

In contrast, in mechanistic organizations, outcomes are largely determined by formal procedures and rules, and are subject to decisions made by the organization. Fair procedures and rules predict fair distribution in the long term. As such, information about outcome equity should be less relevant, and less available, in judging organizational fairness.

Therefore, employees should be more concerned about distributive justice information in organic organizations than in mechanistic organizations.

Proposition 7c: Organic structure is positively associated with distributive justice information salience.

The Moderating and Mediating Role of Information Salience

In the previous section, I discussed how different structural systems influence the level of salience of justice information, now I turn to address the role of information salience on the relationship between justice, structure, and deviance.

Individuals differ in the extent to which they perceive and apply justice principles to different contexts (Lind & Tyler, 1988). Social information processing perspective notes that one's social relations influence what information is attended to and how it is construed. Following the logic that one type of fairness matters more when people do not have direct, explicit information regarding another type of justice (Van den Bos et al., 1997), the type of justice with salient information should be more influential than other types of justice. With different levels of information salience, the same kind of injustice experience should vary in its effects on the outcomes. Research indicates that there is a negative relationship between organizational fairness and workplace deviance. Further, when information about one justice

component is relatively salient, vis-à-vis other justice components, individuals are more likely to act based on the perceptions of that justice component. Therefore, information salience about a certain type of justice should strengthen the relationship between that type of fairness perception and deviant work behavior.

Proposition 8: Information salience moderates the relationship between organizational justice and workplace deviance in such a way that when information about certain type of justice is salient, the relationship between this type of justice and workplace deviance will be the stronger than the relationship between other types of justice and workplace deviance.

The arguments presented so far suggest that organic versus mechanistic structures can ultimately influence employee reactions to perceived injustice by enhancing or reducing the salience of information about the justice components. The study by Ambrose and Schminke (2003) showed organicity, as an important contextual variable, interacted with justice to predict social exchange relationships. In this study, I extend their framework to explore the effect of organicity on the relationship between justice and deviant work behavior. I also suggest information salience as an underlying mechanism through which organicity influences the effect of justice on deviance. That is, by influencing the salience of justice information, different structural conditions make different types of justice more or less important in predicting deviant behavior. Therefore, in view of the potential effect of information salience on the way individuals react to justice perceptions, I suggest the following:

Proposition 9: Information salience mediates the moderated relationship between organizational justice, organicity, and workplace deviance.

Implications

The theoretical model presented in this paper illustrates the importance of taking into account multiple individual and contextual factors in understanding workplace deviance. The combination of, and interactions between, individual attitudes and the organizational environment can both enhance and minimize deviant behavior outcomes.

The examination of organizational justice variables as antecedents of workplace deviance shows the power of fairness perceptions in organizations. Based on this, I extend current research to explore the role of organizational structure in the relationship between justice and deviance. This perspective is consistent with the assertion that fairness perceptions are context embedded (Colquitt & Greenberg, 2003). Scholars note that overarching structural features can exert a deterministic effect on everyday routines (Morand, 1995). In particular, I argue that structure exerts influence through employee's perceived powerlessness and salience of justice information. I elaborate the effect of centralization on employee perceived powerlessness as well as the effect of organicity on the salience of justice information. The contextual perspective adopted in my model can enhance our understanding of the relationship between the realms of work behavior and structure in organizations. The implication is that organizational context can be critical to individual outcomes.

My model also highlights the detrimental effect of powerlessness on work outcomes.

There has been increasing interest in recent years emphasizing the effectiveness of delegation, empowerment, groups, and self-managed work teams (e.g., Conger & Kanungo, 1988; Liden & Tewksbury, 1995). Conger and Kanungo define empowerment as "a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions

that foster powerlessness and through their removal by both formal organizational practices and informal techniques providing efficacy information" (1988: 474). As such, empowerment involves increased individual motivation at work through the delegation of authority to the lowest level of an organization where employees can become competently involved in decision making processes (Conger & Kanungo, 1988). Scholars view organizational structure, policies, and practices as contextual variables that affect employee feelings of empowerment (Liden & Tewksbury, 1995; Spreitzer, 1996). Empirical support has shown the significant relationship of employee empowerment on important work-related outcomes (Bennett, 1998; Liden, Wayne, & Sparrowe, 2000; Sparrowe, 1994; Spreitzer, Kizilos, & Nason, 1997). In this paper I focus on the opposite end of the continuum by examining the negative role of powerlessness on workplace deviance from multiple perspectives. I suggest powerlessness will have direct impact on deviance. Further, powerlessness interacts with justice components to predict deviance. I identify centralization, a structural component, as a significant predictor of powerlessness. As an important intervening variable, powerlessness mediates the effect of centralization on organizational and interpersonal deviance. To date, this is the first research to explore the relationships between justice, centralization, powerlessness, and workplace deviance. It also heightens the importance of empowering employees at all levels of the organization.

Further, as the model suggests, information salience can influence the strength of fairness perceptions. Therefore, not only should organizations design the workplace for "fair play," but also they need to effectively communicate fairness principles and practices to employees.

Scholars (e.g., Jones & Nisbett, 1972) suggest that there are discrepancies between the focal person and bystander in making attribution to organizational outcomes. They indicate that actors and observers differ in perspectives, in motivation, and in available information in their

attribution process. Individuals largely attribute their actions to situational factors, whereas observers tend to attribute those same actions to stable personal dispositions of the actors. As such, decision makers may perceive the causes of outcomes differently than lower level employees. Employees may attribute unsatisfactory outcomes to the organization and their representatives, while organizations may attribute low performance to individuals' attributes and traits (Jones & Nisbett, 1972). Such a situation can heighten a sense of unfairness among employees; and is likely to increase the propensity for destructive acts. Therefore, organizations should also facilitate communication of fairness information to the employees to maximize the effect of existing fairness principles.

Another area in which organizational justice theory can be advanced is through the current discussion of factors that influence the relative importance of justice components. In my model, I suggest that organic versus mechanistic structures can influence the effects of fairness perceptions through the salience of information regarding justice components. A possible extension of this research involves exploration of other contextual variables that might influence the justice-deviance relationship. For example, team context, organizational culture, justice climate, and network centrality have received much attention in the literature on employee work behaviors. Could these variables also influence the relative importance of justice components, and can the information about organizational justice be presented in such a way as to enhance the fairness perceptions and performance of employees?

Future research should also expand other work outcomes in connection with the study of workplace deviance. As discussed earlier, employees respond to the same unsatisfactory experiences in different ways, as not all will result in deviant acts (Aquino et al., 2006).

Therefore, the question remains: what factors can bring out the impulse for revenge when facing

unfair treatment at work, and what factors redirect such impulse to other non-threatening coping strategies. Future research needs to identify the scope and severity of deviant behaviors as well as other behavioral outcomes. Specifically, what percentage of victims who experience unfair treatment in their organizations would adopt deviant responses and why? What other responses are adopted to cope with the experience of unfairness and why?

Finally, as a conceptual model, empirical testing of the elements and points presented in the model is needed.

Conclusion

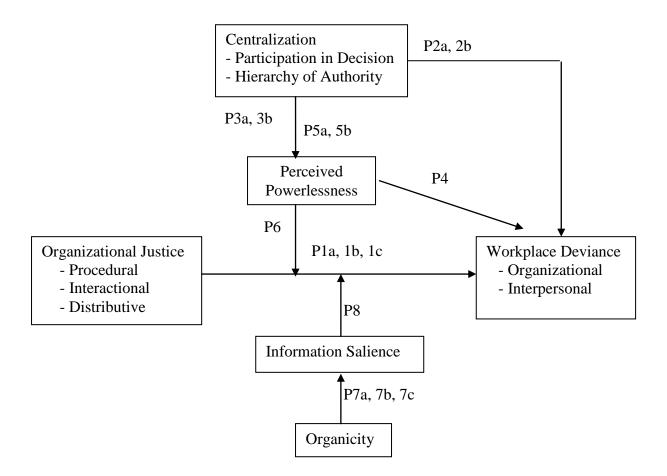
Despite the prevalence of structural influence in organizations, research in the organizational justice and workplace deviance domains has largely ignored the possible effects of structure, and how structure exerts its influence on the relationship between justice and deviance. In this paper, I present a model that integrates the role of structure into justice and deviance research. My model suggests a plausible mechanism for understanding workplace deviance, by recognizing both contextual variables and individual cognitive processes in the occurrence of deviance.

First, I concur with the literature that fairness perceptions are critical attitudes that predict workplace deviance. More importantly, I fill a gap in the literature by proposing two key characteristics of structure as important contexts that lead to two conditions that moderate the relationship between justice and deviance. These two moderators are employees' perceived powerlessness and information salience about justice. First, centralization will influence perceived powerlessness among employee. In centralized structures, employees have little power regarding task arrangements and resource allocation. As a result, they tend to perceive little

control or autonomy over their work; hence, the feelings of powerlessness. When unfairness is experienced, a high level of powerlessness limits one's opportunity and prospects to resolve the disparity through legitimate channels, therefore increasing the likelihood that they will engage in deviant behaviors. Second, organicity will influence the level of information salience pertaining to justice. For example, in mechanistic organizations, the highly formalized, nonparticipative, tightly controlled, and inflexible structures make procedural justice information more salient in determining employees' responses. In contrast, organic organizations, with their flexible and decentralized structures, allows for open channels of communication. This structure type offers more appropriate configurations to facilitate effective communication, a factor that highlights the salience of interactional information. It is common in organizations for employees to not have all the information available to evaluate all aspects of justice; therefore, they rely on information that is salient as a heuristic substitute to form their fairness judgments. The justice component that is salient will become a more important parameter in justice evaluations and reactions to such evaluations. In other words, salient information about a certain type of justice should strengthen the relationship between this type of justice and deviance.

It is critical that organizations understand that workplace deviance is an organizational phenomenon. In order to design organizational practices that minimize destructive behavior and improve long term organizational and individual effectiveness, organizations need to take a systematic approach toward addressing deviance issues. Based on a contextual framework, organizations can effectively reduce deviant behaviors by altering their structural design to address employee motivation and perception beyond efforts that simply decrease the opportunity for employees to engage in such behavior (Boye & Jones, 1997).

Figure 1: The Relationship between Constructs



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Abstract

This study proposes and tests a model that investigates both individual and structural factors in predicting workplace deviance. Results of Hierarchical Linear Modeling (HLM) analysis show that (1) organizational justice, perceived powerlessness, and centralization exert direct effects on workplace deviance; (2) organicity exerts direct effects on justice information salience; (3) perceived powerlessness mediates the relationship between centralization and organizational deviance; and (4) information salience of procedural justice strengthens the effects of procedural justice on interpersonal deviance. The results fail to support other moderating effect predictions of information salience, as well as that of perceived powerlessness, on the relationship between justice and deviance.

Research on the nature and causes of workplace deviance identifies organizational justice as an important predictor of deviance (Bennett & Robinson, 2003). Prior research also shows that organizational structure is related to employee deviance (e.g., Kemper, 1966; Taylor & Walton 1971), and can moderate the relationship between justice and social exchange relations between the employees and their organizations (Ambrose & Schminke, 2003). However, little research investigates the role of structure in the area of justice and deviance.

Organizational justice refers to employees' perceptions of fairness in the workplace and shows significant influence on individuals' motivation and performance at work. The justice

framework of workplace deviance argues that individuals' perceptions or experience of organizational justice are significantly related to employee deviant behaviors. This framework is based on theories with regard to distributive, procedural, and interactional justices. Specifically, justice theories indicate that employees develop their assessment toward organizational fairness based on how resources are allocated, the procedures used to make decisions regarding resource allocation, and the personal interactions with their supervisors. Fairness principles serve to fulfill multiple needs of employees including economic benefits, status/esteem from others, and living a virtuous life (Cropanzano, Byrne, Bobocal, & Rupp, 2001). Injustice threatens basic human psychological needs for control, belonging, self-esteem, and meaning. When events occur to threaten or violate an individual's view of fairness, not only do they experience psychological distress, they are oftentimes motivated to act upon such events in an effort to bring closure.

The justice approach to deviance proposes that workplace deviance is a reaction to perceptions of unfair treatment experienced by employees in their organizational life and that the effects of justice on deviant behaviors can be influenced by a variety of organizational, contextual, and personal characteristics. Perceptions of unfairness can trigger defensive cognitions, negative affect, and coping behavior and can lead to withdrawal or negative reactions (Cohen-Charash & Spector, 2001). In other words, when employees feel that they are treated unfairly, they tend to experience feelings of anger, outrage, frustration, and a desire for retribution (Bies & Tripp, 1996; Greenberg, 1990). Under certain circumstances, these negative feelings can transform into deviant acts (Robinson & Bennett, 1995). Considerable research demonstrates that workplace deviance is a reaction to the unfairness perceived by employees in their relationships with employers (e.g., Ambrose, Seabright, & Schminke 2002; Aquino, Lewis, & Bradfield, 1999; Skarlicki & Folger, 1997).

Introduction

Researchers further note that justice judgment is a social phenomenon. Colquitt and Greenberg (2003: 198) maintain that "justice perceptions are socially constructed, derived from a complex process of social comparison and normative influences." The context under which fairness perceptions are formed can influence the importance of certain aspects of justice as well as the importance of various justice principles (Cohen-Charash & Spector, 2001). Fairness heuristic theory (e.g., Lind, 2001; van den Bos, Lind, Vermunt, & Wilke, 1997) explicitly states that employees use fairness judgments about the way the organization treats its members as a heuristic for evaluating the quality of their relationship with the organization. Employees respond to the uncertainty in their work environment by seeking information about justice. They use this information to assess the trustworthiness and neutrality of organizational decision makers and to validate their own status within the organizational group (van den Bos et al., 1997). A rich body of work in justice literature highlights the social influence on fairness perceptions (e.g., Bies & Shapiro, 1988; Goldman, 2003; Konovsky & Folger, 1991; Lamertz, 2002; Umphress, Labianca, Brass, Kass, & Scholten, 2003; van den Bos, et al., 1997).

Research recognizes the importance of fairness perceptions on the occurrence of workplace deviance, and emphasizes that both individual factors and organizational context together should account for a greater amount of variance in workplace deviance than either aspect alone. However, our knowledge is still very limited about how contextual situations impact the effects of fairness perceptions on behavioral outcomes (Bennett, 1998; Robinson & Greenberg, 1998). Scholars (e.g., Ambrose & Schminke, 2003; Schminke, Ambrose, & Cropanzano, 2000) argue that, as a key element of organizational context, organizational

structure can affect fairness perceptions by determining such factors as power distribution, participation in policies, formalization of rules, regulations, communications, and social interactions. Structural differences can provide different degrees of participation in decision making, as well as can influence control and sanctioning mechanisms (Blau, 1964). Structure can also increase employee empowerment through the expansion of due process (Conger & Kanungo, 1988). All these system characteristics can affect employee's work performance.

In this study, I address two research questions. First, what is the role of structure in the area of justice and deviance? Second, what are the underlying mechanisms through which the effect of structure occurs? To explore the first question, I identify two structural conditions of interest. One is a specific dimension of organizational structure: centralization. The other one is a holistic measure of structural systems: organic vs. mechanistic. Structural conditions influence work control, social interactions, and information processing, all of which have important implications on work behaviors.

To address the second question, I identify perceived powerlessness and information salience as two factors that moderate the effect of justice on deviance. Based on the general theory of social control (Black, 1984), I suggest that centralization influences employees' perceived powerlessness, which interacts with perceived unfairness to predict the occurrence of deviance. Based on social information processing theory (Salancik & Pfeffer, 1978) and fairness heuristic theory (e.g., Lind, 2001), I suggest that organic vs. mechanics structures influence information salience about justice, which then moderates the relationship between justice and deviance. Figure 2 depicts this study's general framework.

Theory and Hypotheses

Robinson and Bennett (1997: 6) define workplace deviance as "voluntary behavior that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both." The workplace deviance construct entails two dimensions that are differentiated by the target. *Organizational deviance* includes acts directed against the company or its systems, whereas *interpersonal deviance* consists of acts that inflict harm upon specific individuals. The distinction of the target dimension has been empirically validated in a number of studies (e.g., Aquino, Galperin & Bennett, 2001; Aquino, et al., 1999; Bennett & Robinson, 2000; Liao, Joshi, & Chuang, 2004). To date, our understanding of employee deviance includes a wide range of negative behaviors, from subtle expressions of rebellion, such as gossiping and taking unapproved breaks, to more aggressive actions, such as aggression and violence (Bennett & Robinson, 2003).

Organizational justice is a multidimensional construct that consists of at least three distinct components: distributive justice, procedural justice, and interactional justice. As mentioned earlier, when employees perceive injustice, they can become upset and motivated to somehow respond by exhibiting different types of workplace deviant behavior. Each of the three types of justice is shown to be significantly related to deviant behaviors including: counterproductive behavior (Fox, Spector, & Miles, 2001), organizational retaliatory behaviors (Skarlicki & Folger, 1997), revenge (Aquino, Tripp, & Bies, 2006), sabotage (Ambrose et al., 2002), theft (Greenberg, 1990, 1993), vandalism (DeMore, Fisher, & Baron, 1988), workplace deviance (Aquino et al., 1999; Henle, 2005), workplace aggression and violence (Dietz, Robinson, Folger, Baron, & Schultz, 2003; Greenberg & Barling, 1999), and withdrawal

(Barling & Phillips, 1993). Due to the multidimensional nature of the organizational justice construct, scholars suggest that the strength of the relationship between each type of justice and the different forms of deviance may be different (e.g., Aquino et al., 1999). However, to date research indicates that perceptions of all three types of injustice can be associated with both forms of workplace deviance, namely, organizational deviance and interpersonal deviance. Next, I discuss in detail the relationship between the three types of organizational justice and each form of deviance (organizational vs. interpersonal) and develop my hypotheses.

Distributive Justice and Deviance

Distributive justice refers to a judgment of an unfair outcome (e.g., lack of pay raise, promotions, or opportunities for training). It is expected that actions taken as the result of an inequity assessment would be directed toward equity restoration (Adams, 1963), defined as the attempt to increase the level of reward in order to compensate for an outcome that was deserved but not received (Greenberg, 1996). Equity theory (Adams, 1963) proposes that individuals need to maintain a view of their social and organizational worlds as just and knowable places. When events occur that threaten their beliefs, individuals become highly motivated to make sense of those events and bring psychological closure to them.

There are reasons to believe that the attempt to restore equity could affect behaviors that take place in both the organizational and the interpersonal domains. First, distributive justice perceptions are developed mainly based on the fairness of resource allocation, which is primarily determined by organizational systems and policies. However, supervisors also have the authority to influence outcomes decisions as well (Aquino et al., 1999). When employees perceive distributive injustice, it is likely that the organization, the supervisor, or both, are to blame, and

they become the victim of the retaliatory actions. Due to its focus on the fairness of an outcome, distributive justice is found to predict actions that are effective in restoring equity. For example, Ambrose et al.'s (2002) study of sabotage in the workplace demonstrates that distributive injustice prompted employees to engage in sabotage behavior aimed at restoring equity.

Meanwhile, evidence also shows that the actions taken could target both the organization and individuals. For example, Skarlicki and Folger (1997) show that distributive injustice had about the same effect as procedural injustice and interactional injustice, in predicting retaliatory behaviors targeting both the organization and its members. In addition, research on pay systems provides solid evidence that employee reaction to pay inequity often triggers deviant behavior targeting the organization, such as property theft (Greenberg & Alge, 1998). Hollinger and Clark (1982) found that when employees feel exploited by the company, they are more likely to engage in acts of theft, as a mechanism to correct perceptions of injustice.

Other scholars take a different viewpoint, arguing that distributive justice does not necessarily lead to deviant behavior. For example, Greenberg and Agle (1998) suggest that distributive justice is a necessary but not sufficient condition for workers' aggression. Sieh (1987) finds little support for the notion that high inequity will lead to deviant responses among factory workers, even though injustice provides the essential motivation/cause for destructive behavior. Results of two meta analyses (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001) provide more insights into the role of distributive justice in predicting various work outcomes. On the one hand, the studies demonstrate a significant relationship between distributive justice and a limited range of behavioral outcomes such as withdrawal and performance. Specifically, the study by Colquitt et al. (2001) finds that distributive justice had high correlations with withdrawal, moderate correlations with negative

reactions, and is weakly related to performance. The study by Cohen and Spector (2001) finds that distributive justice is related to counterproductive work behavior and conflict. But in general, they conclude that distributive justice is a better predictor of attitudinal outcomes than behavioral outcomes.

Overall, distributive justice is suggested to have implications for employee work behavior. However, distributive justice research focuses on the economic aspect of fairness, and thus is limited in its explanation of how people form fairness evaluations. Specifically, the theory does not consider the effects of procedural and interpersonal aspects of fairness evaluations. Further, it lacks the ability to predict behavioral responses to unfair treatment (Colquitt et al., 2001; Folger & Cropanzano, 1998). Based on the above, there are reasons to believe that attempts to restore equity could affect behaviors that take place at both the organizational and interpersonal level, albeit the effect may be relatively weak compared to that of procedural justice and interpersonal justice, or that the effect is situationally dependent. Therefore:

Hypothesis 1a: Distributive justice is negatively associated with organizational deviance.

Hypothesis 1b: Distributive justice is negatively associated with interpersonal deviance.

Procedural Justice and Deviance

Procedural justice represents the process aspect of justice; it concerns individual's perceptions as to the fairness of formal procedures governing decisions. Research in procedural justice suggests that individuals form fairness judgments based not only on the outcomes received, but also on the procedures used to determine these outcomes. Specifically, Lind and Tyler (1988) suggest two models of procedural justice that explain the importance of fair procedures in the organizations (Lind & Tyler, 1988; Tyler, 1987). First, the self-interest or

instrumental model asserts that fair procedures provide employees with process control that is influential in achieving desired outcomes. By controlling procedures, individuals can maximize the favorability of such outcomes in the long term. The second model, the group-value or relational model (Lind & Tyler, 1988; Tyler & Lind, 1992) proposes that a fair procedure indicates one's positive, full-status relationship with authority and promotes within-group relationships, and thus has implications for a person's self-esteem and identity. Leventhal (1980) develops six characteristics that capture the fairness of decision-making procedures. These are consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. A procedure is judged to be unfair if it violates the six rules and/or if it indicates a negative relationship with authority or low status group membership.

Research shows that procedural justice can have a strong impact, independent of distributive justice, on a variety of attitudinal and behavioral outcomes (Colquitt et al., 2001). Specifically, deviant behaviors motivated by procedural injustice could be directed toward both the organization and its members for two reasons. First, organizations are viewed as a source of justice or injustice because they establish formal rules and policies that regulate people's behavior and dictate the allocation of resources. In fact, if individuals perceive that the rules and regulations are inequitable, they may feel that it is impossible to get fair outcomes for their performance input (Lind & Tyler, 1988). As such, they may retaliate against their employing organizations. Second, scholars (e.g., Aquino et al., 1999) note that when making attributions about unfair outcomes, people tend to blame individuals rather than systems because they either lack sufficient information to question, or they do not wish to question the system. Meanwhile, because a supervisor has a direct line of authority over the employee, they are often perceived as

the source of perceived unfairness. Therefore, responses originated in procedural injustice could also result in retaliation toward the supervisor.

Empirical studies provide some support for the effect of procedural justice on deviant behaviors that target both the organization and its members. For example, in a few studies that specifically explore the unique effects of justice components on different forms of deviant behavior, Ambrose et al. (2002) shows that when employees perceive procedural injustice, they tend to sabotage their organization. Greenberg and Barling (1999) show that procedural injustice motivates employees' aggression against their supervisors. Yet Aquino et al. (1999) fails to find support for the predicted effect of procedural injustice on organizational deviance. In other studies, researchers show that procedural injustice plays a significant role in predicting various behaviors including workplace deviance (Henle, 2005), negative creativity (Clark & James, 1999), counterproductive behavior (Colquitt, Scott, Judge, & Shaw, 2006; Fox, et al., 2001), organizational retaliatory behaviors (Blader, Chang, & Tyler, 2001; Skarlicki & Folger, 1997), revenge (Chory-Assad & Paulsel, 2004), and workplace aggression (Kennedy, Homant, & Homant, 2004). Based on previous research, it is expected that procedural justice should be related to deviant behavior that targets both the organization and its members. Therefore,

Hypothesis 2a: Procedural justice is negatively associated with organizational deviance. Hypothesis 2b: Procedural justice is negatively associated with interpersonal deviance.

Interactional Justice and Deviance

Interactional justice focuses on the quality of the interpersonal treatment people receive during the implementation of procedures (Bies & Moag, 1986). It entails structural and social sides. *Interpersonal* justice represents the social side, specifically, the social sensitivity (e.g.,

politeness, dignity, and respect) rendered by authorities. *Informational* justice represents the structural side and reflects the extent to which decision makers explain and provide adequate justification for their decisions (Greenberg, 1987). Interactional justice was initially suggested to be an important predictor of responses to judgments about the supervisor and coworkers. However, investigations show that, beyond the person-focused outcomes such as conflict and poor attitudes (Folger & Cropanzano, 1998), it is a strong predictor of behavioral outcomes including organizational citizenship behaviors (OCBs), withdrawal, and negative reactions (Colquitt et al., 2001). As an intermediate step between the enactment of an organizational procedure and the decision, interpersonal concerns may be more salient to individuals when they form judgments of fairness than either the outcome or the structural characteristics of the procedure. For example, in his report summarizing causes of workplace violence, Bensimon (1994) indicates that disgruntled workers who became violent reported that the dehumanizing way the action was carried out compelled their retaliatory actions, rather than the fact that they were demoted, terminated, or laid off. In another study, Mikula, Petri, and Tanzer (1990) investigate the systematic difference of justice evaluations on negative incidents. They find that the violation of interactional justice is relevant to all types of negative perceptions. Their results suggest that people attach more importance to violations of interactional justice than they do to violations of procedural or distributive justice.

Although supervisors are often considered to be the source of interactional injustice, as they can determine the quality of interpersonal treatment (Cropanzano, Prehar, & Chen, 2002), employees who feel unfairly treated by their supervisors do not always take hostile actions against the supervisors due to potential sanction (Skarlicki & Folger, 1997). In addition, due to their agent role, supervisors can also be perceived as a source of organization-referenced

injustice as well (Ambrose, et al., 2002; Aquino et al., 1999; Rupp & Cropanzano, 2002). Further, interactional injustice is likely to provoke the most intense emotional and behavior responses of all types of injustice (Bies & Moag, 1986). Therefore, victims of interactional injustice engage in destructive actions in an attempt not only to even the score with the offender (Folger & Cropanzano, 1998), but also to express anger, outrage, and frustration (Robinson & Bennett, 1997), regardless of the instrumental value or the target of such actions.

Taken together, the literature suggests that interactional justice perceptions are linked to workplace deviance directed toward both the organization and its members. Therefore,

Hypothesis 3a: Interactional justice is negatively associated with organizational deviance.

Hypothesis 3b: Interactional justice is negatively associated with interpersonal deviance.

Organizational Structure

Organizational structure refers to the internal pattern of relationships, authority, and communication of an organization (Thompson, 1967). It is considered the enduring allocation of work roles and administrative mechanisms that allow organizations to conduct, coordinate, and control their work activities (Jackson & Morgan, 1982). Organizational structure provides a social context in which individuals acquire and process social information, activate cognitive activity, and develop social interactions and interpersonal relationships (Galbraith, 1973). Structure influences information flow as well as the context and nature of human interactions (Miller, 1987). Social interaction and interpersonal relationships, in turn, have the power to influence employees' productivity, turnover, and work satisfaction (Blau, 1964).

Justice effects can vary when justice principles are applied in different contexts (Lind & Tyler, 1988). Organizational structure can influence employees' work control, information

processing, and social interaction, all of which have significant implications on justice and its behavioral outcomes. Research demonstrates that structures could produce systematic differences in employees' attitude and behavior such as job satisfaction, organizational commitment, performance (Adler & Borys, 1996), morality (Hetherington & Hewa, 1997), and work alienation (Kakabadse, 1986; Markowitz, 1987). However, investigation as to the role of structure in the justice-outcome relationships is scarce. One exception is the study conducted by Ambrose and Schminke (2003). The authors hypothesize that organizational structure can moderate the relationship between procedural justice and interactional justice and their respective social exchange relation outcomes. They argue that in mechanistic settings, procedural justice is more relevant when individuals evaluate organizational fairness, whereas in organic settings, interpersonal influences should increase the weight of interactional justice in individual outcomes. Based on data collected among 506 individuals from 98 departments of 64 organizations in a variety of industries, Ambrose and Schminke (2003) show that under mechanistic structural conditions, procedural fairness has a stronger relationship with employees' perceived organizational support, as opposed to conditions found in organic settings. Under organic structural conditions, interactional justice has a stronger relationship with employees' trust in their supervisors, than in mechanistic organizations.

The Ambrose and Schminke (2003) study represents an important first step in understanding the role of organizational structure with regard to the relationship between fairness perceptions and key outcomes. Based on the findings, the authors call for more in-depth research to understand the mechanism by which the interaction effect occurs. In this study, I extend their framework to study workplace deviance as the outcome of interest, and to explore how structure creates conditions that moderate the effect of justice on deviant behavior outcomes. To better

understand the nature and influence of structure, I focus on two critical structural characteristics. One is a fundamental dimension of structure: centralization. The other one is a more holistic measure of structural systems: organic vs. mechanistic (organicity). Based on research in the areas of structure, work control, and information processing, I suggest that centralization should influence perceived powerlessness among employees, and organicity should influence information salience about justice. Further, I suggest that perceived powerlessness among employees and information salience about justice can moderate the relation between justice and deviance. Based on these predictions, I further suggest that perceived powerlessness partially mediates the relationship between centralization and deviance. In addition, information saliency about justice mediates the moderated relationship between justice and deviance. Below I delineate the proposed relationships in detail.

Centralization. Centralization refers to the formal hierarchy as to where power is concentrated or distributed within an organization (Daft & Macintosh, 1984). It consists of two sub dimensions—participation in decision making and hierarchy of authority (Hage & Aiken, 1967). Participation in decision making refers to the extent to which employees can make decisions on their task arrangements. Hierarchy of authority describes who reports to whom and the span of control for each manager (Daft & Macintosh, 1984). A centralized structure is characterized by low levels of participation in decision making and high levels of hierarchy of authority (Hage & Aiken, 1967). Although a high level of centralization is efficient in coordinating decision making in top management, the hierarchy tends to impede personal interactions among organizational members as well as depriving individual autonomy at work.

Organicity. Organicity describes two fundamental forms of organizational structure along a continuum of mechanistic and organic (Burns & Stalker, 1961). In mechanistic organizations,

power is centralized in the hands of top managers, communications tend to be top-down with employees following formal instructions and regulations in their task operations. In addition, tasks are standardized and specified, and formal rules and regulations dominate decision making. In organic organizations, employees have a high level of decisional autonomy and control of their activities; communication channels are open and more flexible; and formal rules and regulations give way to adaptability in facilitating employees to accomplish goals (Burns & Stalker, 1961; Courtright, Fairhurst, & Rogers, 1989; Khandwalla, 1977). Research shows that organic and mechanistic structures can interact with different contingent variables to influence various organizational outcomes (Donaldson, 1996).

Centralization and Workplace Deviance

Research in sociology suggests that deviance is to some extent a product of the organization and its structure because workplace deviance is conduct that is subject to rules and norms designated by organizational authority (Kemper, 1966). Certain structural configurations can have a direct effect on workplace deviance (Black, 1993; Kemper, 1966; Taylor & Walton 1971; Tucker 1999). According to the general theory of social control, workplace deviance can be a means for employees to exercise work control, and deviant acts occur most frequently when the structure of social relations in the workplace are unequal and highly stratified (Black, 1993; Tucker, 1999). Specifically, deviant acts such as violence, sabotage, theft, and withdrawal vary directly with the extent of inequality and social distance between superiors and subordinates (Black, 1993). In other words, structures that create large power distance and minimize employees work control should be likely to motivate workplace deviance.

In centralized organizations, decision-making power is concentrated at the top regarding issues like policy making, hiring, and promotion in the department. Social relations are characterized as hierarchical so that power emanates from those who control resources and make decisions. Such characteristics tend to create a high level of power asymmetry and social distance in organizations. Scholars recognize that a rigid hierarchy and lack of participation in decision making can undermine worker's freedom, autonomy, individuality, and authority (Weber, 1978). Research in individual-organization relationships illustrates a positive relationship between low levels of structure (e.g., organic social system design and complex job design), opportunity to exercise personal control and employee affective, motivational, and behavioral responses. In contrast, research also shows the adverse effects of centralization on individual outcomes such as job satisfaction, organizational commitment, employee morale, job stress, absenteeism, and turnover intention, in a variety of settings. For instance, Greenberg and Grunberg (1995) reports a positive association between low job autonomy and lack of participation in workplace decision making, as well as low job satisfaction and alcohol drinking problems among 1,247 production workers. Dolch and Hefferman (1978) find a strong relationship between participation in decision-making and job satisfaction in welfare agencies. Brooke and Price (1989) test a causal model of absenteeism among 425 full-time employees of a medical center and report a significant negative effect of centralization on absenteeism. In addition, meta-analysis (Loher, Noe, Moeller, & Fitzgerald, 1985) show a strong, consistent relationship between employee autonomy and job satisfaction (coefficient = .46).

Consistent with the observation that control plays an important role in the work environment structure and employee response relationship, the job design literature confirms a positive relationship between autonomy at work and positive attitudes and behaviors on the part

of employees. For instance, Dwyer and Ganster (1991) and Karasek (1979) note that these relationships are due in large part to the degree of control that job autonomy provides employees. Because participation in decision making provides increased opportunities for employees to exercise control and to voice their views and concerns, employees are more likely to develop a sense of power and control. Piece, Gardner, Dunham, and Cummings (1993) find a positive relationship between employee participation in job context decisions and their experienced control. In a longitudinal field observation, Analoui (1995) find that excessive managerial control and employee lack of autonomy are among the direct causes of deviant behaviors.

Scholars also indicate that if employees are unhappy at work, they are more likely to engage in deviant workplace behavior. For example, Judge, Scott, and Ilies (2006) show that job satisfaction was negatively related to workplace deviance. Other studies show that job dissatisfaction is related to increasing chronic lateness and unexcused absence (Blau, 1985; 1994), and low affective occupational commitment is related to lateness and absence (Meyer, Allen, & Smith, 1993). Furthermore, negative work affect is proposed to increase the probability of an incivility spiral (Andersson & Pearson, 1999).

Given the impact of centralization on important issues such as social relations, power distribution, and reward systems in the workplace, as well as previous findings indicating a negative relationship between centralization and job attitudes and affect, I extend the research to explore the direct effect of centralization on workplace deviance. I expect that the instances of workplace deviance will be more likely to occur in organizations with centralized structures than in organizations with decentralized structures.

Hypothesis 4a: The lower the levels of employee participation in decision making (more centralization), the more the likelihood of organizational deviance.

Hypothesis 4b: The lower the levels of employee participation in decision making (more centralization), the higher the likelihood of interpersonal deviance.

Hypothesis 4c: The higher the levels of hierarchy of authority (more centralization), the higher the likelihood of organizational deviance.

Hypothesis 4d: The higher the levels of hierarchy of authority (more centralization), the higher the likelihood of interpersonal deviance.

Centralization and Powerlessness

Seeman (1959: 784) defines powerlessness as "the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks." Within the work environment, powerlessness is postulated to occur when an employee feels a lack of job autonomy in the discharge of his or her duties and daily tasks (Aiken & Hage, 1966). Research points toward a positive link between a traditional bureaucratic structure and a high level of perceived powerlessness among employees. As Pfeffer (1991) argues, power is primarily a structural phenomenon because structure imposes the ultimate constraints on individuals. This implies that employee's sense of power or powerlessness could be embedded in the formal structure of the organization.

In organizations with centralized structures, power generally accrues to those individuals in key positions who have control over resources such as information, money, network, and rewards (Courpasson, 2000). A centralized structure can facilitate the accumulation of personal and organizational sources of power to people high in the organizational hierarchy, thus creating a class of powerless individuals. In a highly centralized organization, workers tend to have little or no responsibility for planning, controlling, issuing orders, hiring, and firing (Argyris, 1971). As a result, employees tend to think that decision making is restricted to the upper levels of the

organization, and thus may perceive little personal control. Such a situation has the effect of fostering and reinforcing a sense of powerlessness (Markowitz, 1987), and results in counterproductive performance such as absenteeism and goldbricking (Argyris, 1971).

A number of studies demonstrate that centralization can impact workers' perceptions of powerlessness. Blauner (1964) finds that in industries characterized by employees having little control over the conditions of employment, workers express a high level of powerlessness. In a study of employee alcohol misuse, Markowitz (1987) finds that a centralized organization significantly contributed to the development of powerlessness among 293 full-time employees from 11 diverse organizations. Pearlin (1962) shows that a rigid hierarchical structure and impersonal authority relations exacerbate subjective powerlessness among nurses of a large mental hospital. In addition, Kakabadse (1986) finds that centralized organizational structures are characterized by powerlessness among professional personnel working in nine social services organizations in England. Specifically, lack of participation in decision making concerning organizational policies and work assignments lead to job and career dissatisfaction. Hence, I predict that centralization will be significantly associated with employees' perceived powerlessness.

Hypothesis 5a: The lower the levels of employee participation in decision making (more centralization), the higher the levels of perceived powerlessness among employees.

Hypothesis 5b: The higher the levels of hierarchy of authority (more centralization), the higher the levels of perceived powerlessness among employees.

Powerlessness and Deviance

Research in sociology has long been interested in individuals' perception of powerlessness and its effect on social and work deviance. Literature indicates that employees'

perceptions of powerlessness emanate from a lack of control over the work environment (Ashforth, 1989) and implies a sense of low self-efficacy (Kohn, 1976; Seeman, 1959), low self-esteem, and a diminished sense of autonomy and responsibility (Umiker, 1992). Such a situation can instigate deviant acts intended to ameliorate the negative experience (Black, 1984). As Bennett and Robinson (2003: 257) note, powerless workers may engage in deviant acts as a "cathartic or corrective means to restoring control over his or her environment."

The idea that deviance is a behavioral attempt to secure power and control is captured by reactance theory (Brehm, 1966) in psychology and the general theory of social control in sociology (Baumgartner, 1984; Black, 1984). Reactance theory proposes that people value the freedom of choice of their actions. When facing a threat of loss of control, people react with attempts to regain control. As the threat of loss of control becomes severe, the threatened freedom becomes more valuable. As such, reactance responses such as destruction are more likely to occur (Brehm, 1966). Given that power and control tend to be highly valued by individuals, perceptions of lack of control, or powerlessness, are usually regarded as a significant threat to freedom. Therefore, powerlessness is likely to provoke behavioral attempts to secure greater personal control.

According to Black (1984), deviant behaviors—violence, sabotage, theft, and withdrawal—are usually a form of what Baumgartner (1984: 303) calls "social control from below." In particular, Black asserts that people use deviance to express their grievances against those of higher social standings and suggests that, the greater the inequality and social distance between superiors and subordinates, the more severe the upward social control.

In modern organizations, the institute and its leaders own and control most of the valuable resources and derive legitimate power embedded within the hierarchy. Because of this,

employees are more dependent on the organization and its leaders for valued resources than the organization is on its employees. However, employees can still derive a certain level of power by controlling the effectiveness of job completion (Crozier, 1964). According to Weber (1978), employees possess labor power due to their discretion over the application of their labor capacity on the job and thus form a potential source of resistance or a condition to impede effective management. For example, Taylor and Walton (1971) note that individuals, especially the powerless, use sabotage as a means to assert some control, even when the work is not necessarily made easier. Their field study shows that one of the primary reasons for the destruction of facilities is that the destruction served as a means for workers to assert control. In view of this, Bennett (1998: 225) suggests "individuals who perceived themselves to be powerless over their work environment and who have no legitimate means of regaining control will attempt to regain a sense of control over their environment by engaging in employee deviance."

The experience of powerlessness has been examined empirically as an antecedent of workplace deviance. For example, in a series of experiments, Allen and Greenberger (1980) show that individuals with low levels of perceived control attempt to exert control over their environment through destruction of the physical environment. Bennett (1998) proposes that autocratic or punitive management styles are closely related to workplace deviance due to their influence over employees' low sense of self efficacy and personal control. Her survey of 219 full time workers, in a variety of jobs, reveals that individuals who perceive little control over their environment are more likely to engage in deviant behaviors. In a subsequent longitudinal study among 240 employees, Bennett (1998) shows that empowerment practices, such as granting workers more authority to make decisions about the work processes, is an effective means of reducing workplace deviance. In addition, a study by Ambrose et al. (2002) examines an array of

motives for organizational sabotage. Powerlessness is found to be the second most common cause of sabotage after organizational injustice. Together injustice and powerlessness account for nearly 80% of the sabotage events investigated.

Researchers indicate that individuals have the fundamental orientation to control their environment in order to fulfill their basic needs such as power and social belonging. Such attempts will be normal if the control could be achieved through socially acceptable means. If this is not possible, they are willing to engage in deviant behavior despite the social cost involved (Bennett, 1998; Sites, 1973). Ashforth (1989: 212) indicates that the so called "bureaupathologies," like absenteeism, tardiness, theft, vandalism, excessive grievance, shoddy workmanship, and counter-productive work group norms, may simply be attempts of the powerless to regain some sense of personal efficacy. Based on a sample of 206 new employees who were relatively powerless in a large, multinational telecommunications company, Ashforth and Saks (1996) show that workers' experiences of powerlessness evoke negative work activities such as disruptive behavior and loss of job involvement. In addition, Crino (1994) observes that employees feel buried and anonymous when they have little input into the policies that affect their daily work lives. Under certain circumstance, sabotage allows those employees to maintain some semblance of control over their work environment. Together, both theories and empirical studies point to the fact that powerlessness can predict workplace deviance. Therefore, I propose that when employees perceive they are powerless at work, they are likely to engage in deviant work behaviors.

Hypothesis 6a: Powerlessness is positively associated with organizational deviance. Hypothesis 6b: Powerlessness is positively associated with interpersonal deviance. Centralization, Powerlessness, and Deviance

To this point, I argue that both centralization and powerlessness can lead to workplace deviance, as well as that centralization can influence perceptions of powerlessness among employees. In sum, centralization determines work arrangements, as well as social relations and practices, which exert enormous power and constraint over individuals. It also organizes social positions hierarchically so that power emanates from those who control resources and make decisions. Centralized structures constrain employee job autonomy and control, a situation that fosters perceived powerlessness. Among employees who experience powerlessness, deviance is likely to become an alternative means of work control or expressions of grievance. Therefore, it is anticipated that a centralized structure will raise feelings of powerlessness. With increased feelings of powerlessness it is more likely that employees will conduct deviant acts as a coping strategy.

Meanwhile, centralization should still have a direct effect over workplace deviance. Workplace deviance is both cognitive and affective driven (Bennett & Robinson, 2003; Judge et al., 2006, Lee & Allen, 2002). That is, individuals may engage in workplace deviance after a state of psychological distress and cognitive deliberation. It also could be spontaneous as an adaptation to the work environment. Scholars indicate that there are at least three distinct antecedents of workplace deviance. These are reactions to experiences at work, reflections of employees' personality, and adaptation to the social context at work (Bennett & Robinson, 2003). Work environment can elicit behavioral responses before an individual considers reasons for behaving one way or another. Thus centralization should exert both direct and indirect effects on deviant behaviors. In other words, perceived powerlessness should partially mediate the

relationship between centralization and workplace deviance. Thus, the following hypotheses are proposed:

Hypothesis 7a: Powerlessness partially mediates the relationship between participation in decision making and organizational deviance.

Hypothesis 7b: Powerlessness partially mediates the relationship between participation in decision making and interpersonal deviance.

Hypothesis 7c: Powerlessness partially mediates the relationship between hierarchy of authority and organizational deviance.

Hypothesis 7d: Powerlessness partially mediates the relationship between hierarchy of authority and interpersonal deviance.

The Moderating Role of Powerlessness on Justice and Deviance

In previous sections I argue the main effects of organizational justice and perceived powerlessness on workplace deviance. I now turn to explore the possible moderating effects of powerlessness on the justice-deviance relationship. Both justice and powerlessness are related to the concepts of power and perceived control and are suggested to be antecedents of deviance (Ambrose et al., 2002; Bennett, 1998). Theories of both justice and powerlessness explore, explain, and predict human activities that are motivated by the fundamental needs of control over their social environment. Yet, these two streams of research focus on distinct aspects of deviance (Robinson & Bennett, 1997). Justice research focuses on the investigation of single deviant acts, such as absenteeism, withdrawal, or theft, and their respective predictors. Sociological researchers examine the general effect of powerlessness in determining societal forms of deviance, but they do not attempt to predict specific forms of deviance, nor do they explain why one type of deviance is more likely to occur than another (Robinson & Bennett, 1997).

Integrating these research areas may better facilitate our understanding of the justice-deviance relationship.

As we know, perceptions of injustice have deleterious consequences for the various fundamental needs of an individual, needs such as their sense of self-worth, social belonging, control, and morality (Cropanzano, Rupp, Mohler, & Schminke, 2001). However, the effects of perceived injustice might be less significant if people have, or perceived themselves to have, a certain amount of power within the organization. Individuals with a good sense of control consider themselves relatively influential over policies that are instrumental in acquiring favorable outcomes and respectful relations. Even when they receive unfavorable treatment, their perceived control will likely motivate and allow them to correct the situation through legitimate channels. Practically, a relatively powerful position enables employees to utilize other resources such as control, social status, and higher levels of income to buffer the negative effects of unfair treatment (Schminke, Cropanzano, & Rupp, 2002). In contrast, individuals who sense a lack of control consider themselves vulnerable to injustice due to their lack of retributional potential. Compared to their relatively powerful counterparts, powerless employees tend to lack sufficient coping resources. As a result, powerlessness comes to be particularly salient and psychologically significant for employees in dealing with their unfair situations.

Some scholars suggest that power and control could moderate the strength of justice effects on behavioral outcomes. Aquino et al. (2006) hypothesizes that power and justice could interact to influence the victim's choice of coping responses to workplace offense. The authors suggest that when facing offense, the default impulse for many employees is to seek revenge, but certain circumstance will channel this impulse toward other responses. Specifically, higher status, powerful, people are more likely to resort to reconciliation. However, when the victims

have lower status than the offender and the victims perceive the organization's procedures to be unfair, their response will most likely be revenge. This is because powerless individuals tend to believe taking personal revenge will be more effective and efficient than going through official grievance procedures in seeking retribution. Aquino et al. (2006) conducted a field study and a laboratory experiment that supported the interaction prediction. In addition, DeMore, Fisher, and Baron (1988) show that, among college students, perceived lack of fairness by authorities and low levels of perceived control interact to predict vandalism.

In sum, organizational justice provides a mechanism that ensures fair treatment, either economic or socioemotional, for organizational members at various levels and positions. Violation of justice principles triggers control-based concern. Powerlessness can further intensify feelings of lack of control. Therefore, individuals who perceive injustice and powerlessness feel that not only do they receive unfair treatment, but also they have little legitimate power to acquire the results they expect. Under such condition, they are more likely to retreat to deviance as a means of expressing their negative emotions and/or to regain a sense of control. In other words, those individuals who experience unfair treatment in their organizational life, perceived powerlessness discourages them from utilizing the legitimate means to regain power and resources. As such, deviance becomes one of the last resorts to assert influence over their environment and over the perceived powerful party. In addition, when the individual is less powerful than the source of the perceived injustice, attempts to restore justice tend to be indirect. Within the existing power relationships in organizations, it is likely that employees will believe deviance is an effective outlet for them to exercise their power and to restore the balance of justice (Folger & Skarlicki, 1998; Jermier, Knights, & Nord, 1994).

Together, these arguments suggest an interactive effect of organizational justice and perceived powerlessness on employee tendencies to engage in deviant acts. Specifically, the effect of unfairness on deviance should be stronger when perceptions of powerlessness are high rather than low. The following hypothesis tests this argument:

Hypothesis 8: Perceived powerlessness moderates the relationship between organizational justice (procedural, interactional, distributive) and workplace deviance (organizational and interpersonal) in such a way that the relationship between organizational justice and workplace deviance will be stronger when employees perceive high levels of powerlessness.

The Effect of Structure on Justice Information Salience

Social information processing (SIP) theory (Salancik & Pfeffer, 1978) asserts that work attitudes and behaviors are, to a large degree, the result of the processing of information from the social environment rather than individual predispositions. "SIP assumes that individuals are adaptive organisms who change their attitudes, behaviors, and beliefs to their social context and to the reality of their own past and present behavior and situation" (Salancik & Pfeffer, 1978: 226). As a result, Salancik and Pfeffer (1978: 226) argue that individual behavior can best be understood by studying the "informational and social environment within which that behavior occurs and to which it adapts." Ashford and Cummings (1983) also note that individuals are proactive information seekers interested in assessing where they stand and how they are doing with regard to their social and work environment. Hence, an underlying question in the study of organizational fairness is how employees acquire information about how the organization treats them (Moorman, 1991; Skarlicki & Folger, 1997).

Lind and Tyler (1988) suggest that individuals differ in the extent to which they perceive and apply justice principles to different contexts. According to fairness heuristic theory (Lind, 2001; van den Bos et al., 1997), justice judgments are formed based on the context. Individuals

develop their perceptions of fairness based on information about the outcomes, procedures, and personal interactions. Depending on which type of information they encounter or attend to, it is likely that their reactions toward their fairness experience in organizations would vary accordingly as well. Social context influences the process of social comparison and interpersonal validation of reality (Greenberg, 1990; Tyler & Bies, 1990; Salancki & Pfeffer, 1978). For example, people often find it difficult to assess whether their outcome is fair because they do not always have the information about a referent. In these situations, they may use information that is available, or easy to interpret, as a heuristic substitute to gauge justice (van den Bos et al., 1997). This proxy could be either the information about procedures or that about interactions with supervisors and coworkers. For example, individuals may rely on supervisor interactions to assess organizational fairness when they do not know much about actual organizational procedures or outcome distribution, or vice versa.

Therefore, various contextual variables, including organizational structure, can influence fairness judgments. Specifically, contextual factors exert their influence on perceptions and interpretations by directing an individual's attention toward certain information regarding the situation, which makes that information more salient than others (Taylor & Fiske, 1978). Kulik and Ambrose (1992) suggest that organizational contexts influence the relevance of the referent and the availability of information that individuals use to form their fairness perceptions. Van den Bos (2001) emphasizes that contextual information is critical to individuals' fairness judgments and their reactions to the decisions of the authority. For example, using the framework of fairness heuristic theory, Jones and Skarlicki (2005) examine how information from peers affects one's interpretation of, and reactions to, an authority's subsequent behavior. Their experiment shows that social cues biased participants' subsequent information processing in the

way to moderate the effect of fairness of the authority's behavior to predict retaliation. Umphress et al. (2003) suggests that the ambiguity of justice concepts makes justice effects open to the influence of social processes such as network relations. The results of their study show that coworkers' opinions influence employee perceptions of three types of justice to different extents. Specifically, social ties that convey social support, affect, and normative information are accessed when employees form justice perceptions. These arguments and findings indicate that social information and social interactions play an important role in determining people's fairness judgments and their reactions to work outcomes.

In sum, it is common for individuals do not always have, or actively seek, information about all aspects of justice. Instead, salient information, such as those that are available, easy to understand, or those perceived to be relevant or important to one's well-being, may serve as the primary parameter in the evaluation of the treatment employees receive at work. If individuals rely heavily on salient information in developing their justice judgments and work behaviors, then it is necessary for us to understand which contextual situations can enhance information salience about justice components, as well as how this effect occurs.

In this study, I propose that structural organicity (i.e., organic vs. mechanistic) can affect the level of information salience regarding each type of justice. Organizational structure provides a social context in which individuals acquire and process social information, activate cognitive activity, and develop social interactions and interpersonal relationships (Galbraith, 1973). As mentioned earlier, Ambrose and Schminke (2003) take the initial step to integrate organizational structure and justice research and empirically demonstrate that organic vs. mechanistic context matters in justice-outcome relations. They also raise a concern regarding the lack of understanding about the mechanisms through which structure moderates the justice effect. They

speculate that characteristics of justice information, such as relevance or availability, might be the cause. In my model, I suggest that information salience provides such a mechanism.

Information salience refers to the importance of justice with regard to people's reactions to perceived unfairness. It concerns the relevance, availability, and understandability of justice information. Below I address its characteristics and explicitly explore its relationship with organic vs. mechanistic structure and its effect on the relationship between justice and deviance.

Organicity and Procedural vs. Interactional Justice Information Salience

One role of structure is to provide the information and communication infrastructure for individuals to access their relationship with their organizations. If different structural conditions provide different context for individuals to acquire and process information, it follows that justice effects can vary by the context through which justice principles are applied. To establish this argument, there are two issues that need to be clarified. First, how do structural conditions influence justice information processing? Second, how does justice information influence justice effects?

To address the first issue, I suggest that the degree of organicity influences the salience of justice information in terms of its relevance, availability, and understandability.

Relevance. Relevance of information relates to the norms, values, and expectations in organizations. Injustice perceptions create feelings of resentment among those who are treated unfairly. This resentment occurs not only because of the negativity of the outcomes, but also because it often violates important norms regarding the treatment of others. These norms may arise from expectations of prevailing practices (Greenberg, Eskew, & Miles, 1991). Differences in socialization and experiences can cause norms to differ across certain subgroups, which may

alter people's expectations for justice and their responses to injustice. Under mechanistic structures, organizations establish formalized practices for employees to follow. Such practices could minimize individual autonomy, as well as limiting employees' decision-making discretion and, consequently, the predictability of outcome distributions. In such a context, fair rules and procedures bear important implications to one's sense of control and predictability of his or her work life. Therefore, in mechanistic settings, procedural justice should become the proxy by which individuals evaluate organizational fairness. Information about procedural justice becomes particularly relevant in one's justice judgment (Ambrose & Schminke, 2003).

In organic settings, there are fewer constraints as employees have more involvement over resource allocations and task operations since decision making rests in the hands of employees. For this reason, individuals rely less heavily on the fairness of the rules and procedures in forming their justice judgments. Instead, with active interaction between individuals, the formulation and implementation of work rules for the most part, are replaced by personal interactions and personal transactions (Ambrose & Schminke, 2003). As tasks are accomplished mostly through personal interactions at all levels of the organization, the fairness of personal interactions becomes an important factor in determining organizational and individual outcomes. Accordingly, employees often choose interactional fairness as an exemplar when assessing the values of the organization and base their attitudes and behavior concerning the organization on this assessment (Umphress et al., 2003). As employees place great emphasis on the quality of interpersonal treatment, information about interactional justice should draw more attention than procedural justice information.

Availability. Employees often rely on available information to form fairness judgments and once they have established a fairness judgment they use this perception to evaluate

subsequent events (van den Bos et al., 1997). Availability of information regarding different aspects of justice varies between mechanistic and organic organizations. Mechanistic organizations provide guidelines that can allow greater clarification of rules and procedures. As such, information regarding procedural rules is readily available for people to follow. In contrast, the decentralized decision making patterns and network-based systems of control, found in organic structures, diminish the availability of formal rules and procedures. Employees rely largely on continuous social interactions to determine task operations and outcomes. Information about interactional fairness should be more readily available than information about procedural justice.

Understandability. Interactional justice pertains to issues such as respect, dignity, and explanation. Unlike formal rules that are made by an organization's top managers, information about interpersonal treatment comes directly through interactions with organizational agents (Bies & Moag, 1986). In organic structures, employees have ample opportunities to interact with others and thus should find it relatively easy to interpret the quality of dignity and respect. An organic structure promotes discussion and negotiation. The seeking of advice is encouraged rather than direct order giving and top-down decision making (Courtright et al., 1989). Hence, an organic structure should display higher levels of mutual communication than mechanistic systems. Therefore, with the frequency and importance of communication in task issues, along with the absence of clearly documented rules, employees in organic organizations should be in a better position to evaluate the fairness of interactions with other organizational members.

In comparison, the emphasis on standardized procedures in a mechanistic structure makes it easier to evaluate the fairness of organizational procedures than it is to assess the fairness of personal interactions. This is not to say that a mechanistic structure will have no effect on

employees' interpretations of interactional fairness; rather, the concern for personal interactions will be less prominent in mechanistic structures. Taken together, I suggest the following:

Hypothesis 9a: Mechanistic structure is positively associated with procedural justice information salience.

Hypothesis 9b: Organic structure is positively associated with interactional justice information salience.

Organicity and Distributive Justice Information Salience

The difference between procedural justice information salience and interactional justice information salience is relatively discernable in organic vs. mechanistic organizations. Information salience pertaining to distributive justice is less clear in this regard. Because distributive justice focuses primarily on individual perceptions of the fairness of reward distribution, the level of the outcome itself is highly salient. Yet the fairness of distribution could also be a result of organizational procedures and interactional conduct, in addition to the fairness of outcome distribution. Consider that, in mechanistic organizations, outcomes are largely determined by formal procedures and rules, and are subject to decisions made by the organization. Fair procedures and rules mainly make it predictable to achieve fair distribution in the long term. As such, information about the distribution fairness itself may serve as an important indicator of organizational fairness; which raises its level of salience. Alternatively, an organic structure facilitates active interaction between individuals, thereby allowing employees to have more involvement in determining the work outcomes. When resource allocation is localized and negotiable (Courtright et al., 1989), individuals are more likely to perceive the possibility that alternatives are available for reaching a different outcome. Folger (1986) indicates that people are most likely to experience anger and resentment when an alternative

means is available to obtain a more favorable outcome. Because organic structures may bring employees' attention to the information about the outcome, organic structures could raise the salience of the information about distributive justice.

Due to the fact that numerous information sources exist when making a distributive justice evaluation, and ambiguity exists in how individuals process these bits of information, questions remain whether structure could influence the salience of such information and if so, how the effects occur. Despite the conceptual speculations, prior research provides neither theoretical guidance nor empirical evidence to formulate a definitive hypothesis. Therefore, this area is considered to be a point of exploration. Therefore, I will probe the relationship between organizational structure and information salience of distributive justice with the following research question:

Research question: What is the relationship between organicity and information salience of distributive justice?

The Moderating and Mediating Role of Information Salience

In the previous section, I discuss how different structural systems influence the level of salience of justice information, now I address the impact of information salience on the effect of organicity on the relationship between justice and deviance.

As discussed earlier, individuals differ in the extent to which they perceive and apply justice principles to different contexts (Lind & Tyler, 1988). Social information-processing perspective notes that one's social relations influence what information is attended to and how it is construed. Following the logic that one type of fairness matters more when people do not have direct, explicit information regarding another type of justice (van den Bos et al., 1997), the type of justice with salient information should be more influential than other types of justice. With

different levels of information salience, the same kind of injustice experience should vary in its effects on the outcomes. Earlier, I hypothesize that there is a negative relationship between organizational fairness and workplace deviance. Further, when information about one type of justice is relatively salient, vis-à-vis other types of justice, individuals are more likely to act based on information regarding this type of unfairness. Therefore, information salience about a certain type of justice should strengthen the relationship between that type of fairness perception and deviant work behavior.

Hypothesis 10a: Information salience moderates the relationship between organizational justice and workplace deviance in such a way that when information about a certain type of justice is salient, the relationship between this type of justice and workplace deviance will be stronger than the relationship between other types of justice and workplace deviance.

The arguments presented so far suggest that organic vs. mechanistic structures can ultimately influence employee reactions to perceived injustice by enhancing or reducing the salience of information about the injustice. The study by Ambrose and Schminke (2003) shows that organicity, as an important contextual variable, interacts with justice to predict social exchange relationships. In this study, I extend their framework to explore the effect of organicity on the relationship between justice and deviant work behavior. I also suggest information salience as an underlying mechanism through which organicity influences the effect of justice on deviance. That is, by influencing the salience of justice information, different structural conditions make different types of justice more or less important in predicting deviant behavior. Therefore, in view of the potential effect of information salience on the way individuals react to justice perceptions, I hypothesize the following:

Hypothesis 10b: Information salience mediates the moderated relationship between organizational justice, organicity, and workplace deviance.

Methods

Respondents and Procedures

Participants were from 64 departments of organizations located in the Midwestern United States, covering medical, agricultural, retail, education, and manufacturing industries. Each organization was approached through a contact person identified by the investigator. The contact persons, after a brief training session, were provided with a packet containing 10 surveys, 10 envelopes, and 10 cover letters to deliver to potential respondents. A total of 73 packets (730 surveys) were prepared and 64 packets, containing 542 surveys were returned. During data entry and analysis, 14 surveys were incomplete and were dropped from subsequent analysis. A total of 528 responses out of 730 surveys were tabulated, representing a response rate of 72.3%. Of the responding packets, 61 yielded five or more surveys, one returned four, and two returned three. Females comprised a slight majority of the sample (54.7%), and 51.3% of respondents reported being between 26 and 35 years of age. 81.4% of the sample reported their ethnic heritage as white American and 36.3% indicated they were college graduates. Union membership represented only 5.5% of the sample, while 74.4% held non-supervisory positions. The average length of tenure with the present employer was 4.7 years and respondents averaged 3.7 years in their current department.

The cover letter provided to participants outlined the purpose of the study, along with instructions to use in completing the survey. Respondents were instructed to complete and seal the survey in the envelope provided before returning it to the contact persons. The cover letter assured participants that their anonymity and confidentiality would be maintained and that

participation was voluntary. The survey began with demographic questions (e.g., tenure, gender, age, and ethnicity) followed by measurements to assess characteristics of the participant's organization, his or her perceptions and attitudes toward the organization and their job. These instruments were randomized across subjects and included measures of: (1) workplace deviance (organizational and interpersonal), (2) organizational justice (procedural justice, interactional justice, and distributive justice), (3) centralization, (4) organicity, (5) powerlessness, (6) information salience of three types of justice.

Measures

Workplace deviance. I used Bennett and Robinson's (2000) measures for organizational deviance and interpersonal deviance. These scales assess the frequency of which the respondents engage in behaviors that are harmful to the organization or other employees along a 7-point scale (1=never, 2=once, 3=a few times, 4=several times, 5=monthly, 6=weekly, 7=daily). Twelve items (e.g., take merchandise from work without permission, intentionally work slower than one could have worked) report deviant acts that target the organization. Seven items (e.g., say something hurtful to someone at work, act rudely toward someone at work) report deviant acts that target members of the organization.

Organizational justice. I used <u>Colquitt's (2001)</u> measures for distributive, procedural, and interactional justice. These scales assess the extent to which the respondent's experiences reflect attributes of fair outcomes, procedures, and interactions along a 7-point Likert-type scale (1=to a small extent, 7=to a great extent). Four items (e.g., outcomes are justified given performance, outcomes are appropriate for work completed) assess perceptions of distributive justice. Seven items (e.g., procedures have been applied consistently, procedures have been free of bias) assess

perceptions of procedural justice. Nine items assess perceptions of interactional justice. Four items measured perceptions of interpersonal sensitivity (e.g., treated in a polite manner, treated with respect) and five measured perceptions of explanations (e.g., candid communication, explanations used to make job decisions reasonable).

Centralization. I used Hage and Aiken's (1969) 9-item scale that measures two dimensions of centralization: participation in decision making and hierarchy of authority. Participation in decision making was calculated as the mean response to four items along a 5-point Likert-type scale (1=never, 5=always). The questions ask how frequently the respondents participate in the decisions on the adoption of new programs, new policies, the hiring of new staff, and promotions of professional staff.

Hierarchy of authority was calculated as the mean response to five items along a 5-point scale (1=definitely true, 2=mostly true, 3=neither true nor false, 4=mostly false, 5=definitely false). Sample items include: "there can be little action taken here until a supervisor approves a decision," and "a person who wants to make his own decisions would be quickly discouraged here."

Organicity. I used Khandwalla's (1977) seven-item scale to measure the degree to which departments reflected mechanistic or organic characteristics. Participants indicated along a 7-point semantic differential scale the degree to which statements described the structure of their work unit. (e.g., "Tight formal control of most operations by means of sophisticated control and information systems" vs. "Loose, informal control; heavy dependence on informal relationships and the norm of cooperation for getting work done.") Items were scored such that higher values represented a more organic structure.

Both centralization and organicity are group-level variables representing a shared perception of organizational structure. Thus, I aggregated individual perceptions of structural characteristics to group-level measures. Following Ambrose & Schminke (2003) and Schminke, Ambrose, and Cropanzano (2000), I aggregated individual-level perceptions of structure (centralization and organicity) to group-level measures by averaging all members' responses to each scale by department. To determine the appropriateness of the aggregation, I calculated the within-group interrater reliability statistic (r_{wg}) (George & James, 1993; James, Demaree, & Wolf, 1984, 1993; Kozlowski & Hattrup, 1992), as well as the intraclass correlation coefficient (ICC) for each department. A r_{wg} measures the degree of agreement between members of each department. An index of 1.00 reflects perfect agreement across all members. Across the 62 departments in my sample the r_{wg} statistic ranged from .59 to .97, with a mean and median r_{wg} of .83. Sixty-two of the 65 departments were above .70. Based on criteria developed by George (1990), aggregation of the data is appropriate. An ICC measures the degree of agreement between the departments. According to James (1982), ICC(2) is the appropriate reliability measure at the aggregate level for organizational characteristics, such as organizational structures. ICC(2) for the ratings was .75, indicating that the departments in my study can be differentiated on individual perceptions of structure.

Powerlessness. I adapted Ashford, Lee, and Bobko (1989) three-item scale of powerlessness to measure the lack of control toward one's work process, work situation, and work outcome along a 7-point Likert-type scale (1=strongly disagree, 7=strongly agree). The items are: (1) "I have enough power in this department to control events that might affect my job," (2) "In this department, I can prevent negative things from affecting my work situation," and (3) "I understand this department well enough to be able to control things that affect me."

Information salience. To measure the salience of information regarding each justice dimension, I developed a 4-item scale by adapting items used by Streufert & Streufert (1970) and Ishman (1998) that measure information relevance in performance and information quality in information system management, respectively. Participants indicated along a 7-point semantic differential scale the degree to which statements assessed the salience of information regarding each aspect of justice (distributive, procedural, and interactional). Following the scale for each type of justice, respondents rated specifically the extent to which the information regarding that type of justice was "relevant to the work I do," "available whenever I need it," "easy to understand," and "important to know."

Pretest of information salience scale

Because the information salience scale was created for this study by adapting from, and integrating, previously validated measures, I performed an exploratory factor analysis (EFA) based on a separate data set collected from 44 business college students in a Midwestern university. The majority (72%) of the respondents reported being between 20 and 25 years of age, while 16% of them reported being 26 years and older. Approximately 21.5% of the sample held supervisory positions and 78.5% held non-supervisory positions. 60.3% were female, and 84.4% were white. The average organizational tenure was 17 months. 28% of participations were full-time employees vs. 72% of them work part time. All measures held adequate reliabilities. Cronbach alpha was .92, .89, and .86 for distributive, procedural, and interactional information salience, respectively. I performed Exploratory Factor Analysis (EFA) for the measurement model. The results show these items loaded on three distinct factors with one exception. (See Table 6 for details.) That is, item 1 (relevance) for interactional justice information salience has

cross loading on distributive justice information salience that was above the acceptable limit. A test for the inter-item correlations between the interactional justice information salience items and distributive information salience items showed that the cross loading was correspond to the high correlations between item 1 and distributive justice information salience items.

Control Variables. I controlled for a number of variables that may be theoretically related to the dependent variables, but were not of direct interest in my study. Previous research suggests that demographic effects contribute unique variance to justice and deviance over and above the attitudinal and situational variables (Bennett & Robinson, 2003). To control for these effects on the dependent variables, I included respondents' gender, age, organizational tenure, and department tenure, ethnicity, and union membership in the analysis. In addition, research suggests that individuals tend to present themselves in a socially desirable manner when it comes to reporting their own attitudes and behaviors. Therefore, social desirability in the responses was controlled for with the 10-item short version of the Strahan and Gerbasi (1972) social desirability scale.

Analysis

One of the goals of this study is to understand how a contextual variable (organizational structure) affects individual behavior (workplace deviance). As described earlier, data was collected from sixty-four departments with five to ten respondents from each department in order to capture the structural characteristics. Hence, observations based on these individuals are not fully independent. Instead, individual respondents were nested within their departments, creating a hierarchical data structure with two levels of random variations: variation among employees within departments (level 1) and variation among departments (level 2).

To model the relationships among justice perceptions, perceived powerlessness, and information salience within individuals and to examine the role of centralization and organicity in the model, I estimated the random coefficient models using hierarchical linear modeling (HLM) for 2-level models (Raudenbush & Bryk, 2002). The Level 1 variables were nested within the Level 2 variables. HLM explicitly accounts for the nested nature of data and can simultaneously estimate the impact of factors at different levels on individual-level outcomes while maintaining appropriate levels of analysis for predictors (Bryk & Raudenbush, 1992). HLM allows one to analyze variables at multiple levels of analysis in a series of regression equations. The traditional Ordinary Least Squares (OLS) analysis requires independence of observations as a primary assumption for the analysis. It does not take into account the interdependence of individual-level observations nested within higher-level structure. Hence, OLS regression produces estimates of standard errors that are biased, and test statistics may not be valid. Simply aggregating individual data to the group level tends to eliminate much of the individual variability on the outcome variables, which can lead to dramatic under- or overestimation of the observed relationships between variables. Further, the outcome variable changes significantly and substantively from individual behavior to average group behavior. In addition, these approaches prevent the researcher from disentangling individual and group effects on the outcome of interest. In this study, I performed a multilevel analysis via PROCMIXED in SAS9 .10, in which the respective Level 1 and Level 2 variables were specified appropriately.

I estimated the null model (with no predictors involved) for the two outcom variables in this study (organizational deviance and interpersonal deviance) and found significant level 2 variance in the dependent variables. A substantial proportion of the total variance in organizational deviance as well as that in interpersonal deviance were within individuals

(13.27% and 15.43%, respectively.). These results confirmed that HLM was the right analytic strategy to use. In addition, following the recommendations of Hofmann and Gavin (1998), I grand-mean-centered individual means at Level-1 predictors and group-mean-centered group means at Level-2 predictors of the intercept term. Doing so allows any between-group variance to be included in estimates of the relations between group variance in the outcome measure.

I used the deviance index -2 x log-likelihood of a maximum-likelihood estimate to assess model fit. The smaller the deviance value, the better a model fits. The resulting model information indicates that the model including only the main effect terms fits slightly better than the model including the interactive terms. For organizational deviance, the model deviance is 1326.7 vs. 1349.9 in model 1a (without interactive terms) and model 1b (with interactive terms). For interpersonal deviance, the model deviance is 1308.1 vs. 1326 in model 2a (without interactive terms) and model 2b (with interactive terms). The variance explained by the model did not change by including the interactive terms. In both models the variance explained by the model remains at 9.1% for organizational deviance and 11.2% for interpersonal deviance (see Table 3 for details).

Results

Table 2 provides means, standard deviations, and correlations for all variables. Table 3 presents the results of the HLM analyses predicting organizational deviance. Table 4 presents the results of the HLM analysis predicting interpersonal deviance. Table 5 presents the results of the HLM analysis predicting powerlessness and information salience. Table 6 provides factor loading for information salience scale. Table 7 provides the factor loadings for other established

scales. Table 8 provides confirmation factor analysis based on the comparison of a priori measurement models.

I conducted a series of Confirmatory Factor Analysis (CFA) to test the psychometric properties of the variables. Results from these analyses are reported in Table 8. Commonly used indicators of fit were examined including comparative fit index (CFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA). Guidance from the literature suggests that CFI and IFI scores above 0.90, along with an RMSEA score of .08 or less indicate a good model fit (Browne & Cudeck 1993; Hu & Bentler 1999). Comparison of the results from the A priori measurement models indicates that the 12-factor model fits the data best (χ^2 = 5333.57, df = 2279; CFI = ..866; IFI = .867; RMSEA = .05). Thus, I continued to test the hypotheses using the 12-factor model.

Hypothesis Tests of Main Effects

Hypotheses 1a, 1b, 2a, 2b, and 3a, 3b predicted that distributive, procedural, and interactional justice would be significantly associated with both organizational deviance and interpersonal deviance. The results revealed significant negative main effects for procedural justice on both organizational (p < .05) and interpersonal deviant behavior (p < .01), as well as significant negative main effects for interactional justice on both organizational (p < .05) and interpersonal deviant behavior (p < .05). Distributive justice was not significantly related to either organizational deviance or interpersonal deviance. Therefore, the results supported hypotheses 2a, 2b, 3a, and 3b, but did not support hypothesis 1a and 1b.

Hypotheses 4a and 4b predicted a negative main effect of participation in decision making on both organizational and interpersonal deviance, respectively. The results showed a

significant negative relationship between participation in decision making and interpersonal deviance (p < .01) but not with organizational deviance. Thus hypothesis 4b was supported but hypothesis 4a was not supported. Similarly, hypotheses 4c and 4d predicted a positive main effect of hierarchy of authority on both organizational and interpersonal deviance, respectively. The results showed a significant positive relationship between hierarchy and organizational deviance (p < .01) and interpersonal deviance (p < .001). Thus, both hypothesis 4c and 4c are supported. Together, the results largely supported the argument that workplace deviance is more likely to occur in centralized organizations.

Hypotheses 5a and 5b predicted that low levels of participation in decision making and high levels of hierarchy of authority would lead to powerlessness, respectively. Results supported both predictions (p < .01 and p < .05, respectively). In other words, centralization had an impact on employee perceived powerlessness.

Hypotheses 6a and 6b predicted main effects of powerlessness on organizational and interpersonal deviance, respectively. Results showed a significant positive effect of powerlessness on organizational deviance (p < .05) but not on interpersonal deviance. Therefore, hypothesis 7a was supported but hypothesis 7b was not supported.

Hypothesis 9a and 9b concerned the direct effects of organicity on information saliency about procedural justice and information saliency about interactional justice. Results showed a significant link between organicity and information about procedural justice (p < .01); however, in the direction opposite to the prediction. That is, information about procedural justice was more salient in organic organizations than in mechanistic organizations. Organicity did not have any significant effect on information about interactional justice and thus failed to support 9b. In addition, a research question was proposed to probe the effect of organicity on information

saliency of distributive justice. Results provided initial evidence showing that organic structures had a significant effect on information about distributive justice (p < .05), consistent with the effect of organic structures on information salience about procedural justice.

Hypothesis Tests of Mediating Effects of Powerlessness

Hypotheses 7a, 7b, 7c, and 7d predicted that powerlessness would partially mediate the relationship between a) participation in decision making and b) hierarchy of authority, and both organizational and interpersonal deviance. To test these mediation hypotheses, I conducted Level 1 regressions controlling for the mediator and then compared the results with regressions without the mediator included. Results of the HLM level 1 regressions revealed the direct powerlessness—interpersonal deviance link was not statistically significant, thus failing to meet one of the conditions to test powerlessness as a mediator in the relationship between centralization and interpersonal deviance (Baron & Kenny, 1986; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Therefore, hypothesis 8b and 8d were not considered for mediation analysis.

Regarding hypotheses 8a and 8b, results showed that the paths between centralization, powerlessness, and organizational deviance were mostly significant. First, participation was significantly related to powerlessness, which is significantly related to organizational deviance. Although the direct relationship between participation and organizational deviance was not significant, according to the guidelines set up by recent work on mediation test methods (MacKinnon, Lockwood, Hoffman, West & Sheets, 2002; Shrout & Bolger, 2002), participation has an indirect effect on organizational deviance through powerlessness. Therefore, hypothesis 8a was supported.

Second, the paths between hierarchy, powerlessness, and organizational deviance were all significant. First, hierarchy was related to powerlessness. Second, powerlessness was related to organizational deviance. Third, hierarchy was related to organizational deviance. Fourth, the strength of the relationship between hierarchy and organizational deviance was reduced when powerlessness was added to the model as a mediator. Based on these conditions, powerlessness was a significant partial mediator between hierarchy and organizational deviance. Therefore, hypothesis 8b was also supported.

Hypothesis Tests of Moderating Effects

Hypothesis 8 predicted that powerlessness would moderate the relationship between three types of justice and both organizational and interpersonal deviance. Thus, I expected to find interactive effects between justice variables and powerlessness. Before conducting this analysis, to facilitate the interpretation of the results, indicators were mean centered before they were multiplied to obtain the interaction terms. Results showed that the interaction model analysis did not support this prediction. Powerlessness did not interact with any type of justice to influence workplace deviance.

Hypothesis 10a predicted that information salience would moderate the relationship between different types of justice and workplace deviance in the way that the effect of a specific type of justice would be strengthened by salient information about this type of justice. Results revealed only one significant interaction between procedural justice and procedural justice information salience in predicting interpersonal deviance (p < .05). Therefore, hypothesis 10a is largely unsupported. Figure 3 depicts this relationship.

Cross-Level Analysis

I performed cross-level analysis to test the interaction between centralization and organicity and justice variables in predicting workplace deviance. The cross-level interaction model fits slightly better (model deviance = 1345.2) than the original model (model deviance = 1349.9) in predicting organizational deviance, but fits slightly worse in predicting interpersonal deviance (model deviance = 1330.6 comparing to 1326.0 in the original model). Neither centralization nor organicity interacts with three types of justice in predicting both deviance outcome variables. Therefore, cross-level interaction was not found.

Hypotheses 10b predicted that information salience would mediate the moderating effect of organicity on justice and deviance. For this mediation hypothesis to be supported, the interaction between justice variables and organicity needs to be significant in predicting deviance. Based on the results of the cross-level interaction analysis, Hypotheses 10b was not supported.

In summary, HLM analysis supported most of the main effects hypotheses, the mediating effect of powerlessness on centralization and organizational deviance relationship, but fail to support the hypothesized interactive effects of powerlessness and information salience, and consequently, the expected mediating effect of information salience on the effect of organicity on the relationship between justice and deviance. Below I will discuss the findings, their implications, and limitations of the study.

Discussion

This study examined and found that both individual and structural variables could contribute to workplace deviance. Specifically, when employees perceive low levels of

organizational justice, or when they perceive high levels of powerlessness, they are more likely to engage in workplace deviance. Results also show that centralization is associated with a high level of perceived powerlessness as well as workplace deviance. Employees' perceived powerlessness partially mediates the relationship between centralization and interpersonal deviance. In addition, organicity has an impact on the salience of justice information. However, the hypothesized moderating effects of powerlessness and information salience on the relationship between justice and deviance were not supported. As such, information salience does not mediate the effect of centralization and organicity on the relationship between justice and deviance. Below I discuss the findings in detail.

The results reveal significant main effects of a number of predictors of workplace deviance. These predictors include procedural justice and interactional justice, employee perceived powerlessness, and centralization. First, employees who experience procedural injustice and interactional injustice are more likely to engage in deviant behaviors that target both the organization and its members. Yet distributive injustice had no such influence. This pattern keeps with findings in the literature showing that procedural justice and interactional justice are stronger predictors for behavioral outcomes than is distributive justice (Cohen-Charach & Spector, 2001; Colquitt, et al., 2001; Greenberg & Alge, 1998).

Second, perceived powerlessness has a significant impact on organizational deviance. Classical structural elements like power and status have gained some attention in the justice literature in recent years. For example, Ambrose et al. (2002) identifies powerlessness as one of the antecedents of workplace sabotage. Schminke, Cropanzano, and Rupp (2002) find that organizational level moderated the relationship between organizational structure and fairness perceptions. Aquino et al. (2006) show that employees' hierarchical status and procedural justice

climate interacted to predict victim responses to the wrongdoing they experienced in the organization. Research on empowerment suggests that enhancing employees' control over their work could reduce deviance behavior (e.g. Bennett, 1998). Results of this study contribute to this literature by empirically demonstrating the link between perceived powerlessness and deviant behavior.

Third, the study finds that centralization has a direct impact on both workplace deviance and powerlessness. Specifically, centralization (low levels of participation in decision making and high levels of hierarchy of authority) shows a significant effect on powerlessness. That is, employees in highly centralized organizations tend to perceive a high level of powerlessness. Centralization has a similar effect on workplace deviance except that hierarchy of authority did not influence deviant behavior toward the organization. Overall, in addition to individual justice perceptions, organizational structure and employee perceptions of lack of control also contribute to the variance in workplace deviance.

Fourth, the intervening role of powerlessness in the centralization-deviance relationship is a new finding to the literature. This study suggests that the rigid hierarchy of authority and lack of participation in decision making of their daily tasks can render employees powerless, a factor that contributes to counterproductive behaviors. This finding, along with previous research on powerlessness (e.g., Ambrose et al., 2002; Ashforth, 1989) and empowerment (e.g. Bennett, 1998), suggests that in order to improve work behavior, organizations should design their systems to avoid the pitfalls associated with centralized structures and that it is critical to empower employees at the workplace.

Fifth, this study moves beyond the individual justice considerations to examine the impact of different structural conditions on the information salience of different types of justice

and the possible role of information salience on employees' reactions to injustice. The results suggest that, in organic organizations, information about procedural and distributive justice is considered more pertinent to employees than in mechanistic organizations. The finding that organicity increases the information salience of procedural justice is in the opposite direction of my prediction. In hindsight, these results are in agreement with the argument of information processing theory. According to Salancik and Pfeffer (1978), individuals use information gathered directly from their social relations to decide their attitudes and actions. Depending on the work context, employees react to social cues and develop their perceptions by focusing attention on some aspects of the work environment while away from other aspects. Salancik and Pfeffer (1978) argue that the more complex and ambiguous is the job context, the more likely that individuals will rely on information from social relations to form evaluations and perceptions of organizational characteristics. From this perspective, information about each type of justice should help employees construct interpretations of events and assess the fairness of the organizational environment. In terms of the attributes of mechanistic design, formal bureaucratic systems emphasize documentation of policies and rules and thus facilitate clarification of information about fairness issues. In contrast, in less formalized structures, employees may desire more knowledge or information about procedureal and outcome issues to cope with the versatile, flexible, relation-based work environment. Therefore, justice information should stand out of its context—that is, become more salient—in organic organizations than in mechanistic organizations. It is also possible that the availability of justice information differs in different systems. Van den Bos et al. (2001) note that, although people may use information on procedural fairness as a heuristic to evaluate outcome fairness, when information on the distribution of outcomes (and inputs) is available, concerns with distributive justice may remain equally

important. The data for this study did not acquire information about the availability of the specific outcome distribution. However, it seems that multiple perspectives need to be considered to understand the role of organicity in information salience.

Organic structure did not influence information saliency about interactional justice. It is possible that organic structures permit employees direct access to needed information about their work relations and tasks; employees become less concerned about interactional justice information. Research on interactional justice focuses primarily on the quality of personal interaction in execution of decisions. In much of that research, individuals have first-hand experience with interactional fairness. As a consequence, the level of one's own experience is highly salient. In making assessments, it may be difficult to discern what individuals perceive and what the structure construes to be salient in terms of interactional justice. However, due to its newness in the literature, it would be immature to draw any conclusive implications in this regard. More research is needed to explain and validate this relationship.

The findings about the effect of organic vs. mechanistic structures on the salience of justice information are relatively new in the literature. Previous research establishes the link between organizational structure and justice perceptions. For example, Schminke, Ambrose, and Cropanzano (2000) find that structural centralization is associated with low levels of procedural justice perceptions. Schminke, Cropanzano, and Rupp (2002) find that decentralized structures exert a positive influence on all three types of justice, with hierarchy of authority being a more powerful predictor than participation in decision making. This study focuses on the role of structural organicity on the information processing aspect of justice perceptions. Future research should further explore and validate such a relationship in order to better understand how structures influence the development of justice evaluations.

Scholars have called for more comprehensive modeling of justice-outcome relations (e.g., Colquitt & Greenberg, 2003). This study extended current research by investigating the possible moderating effects of perceived powerlessness and information saliency in justice-deviance relationships under the context of organizational structure. The results report very limited interactive effects. The only significant finding is that procedural justice information salience interacts with procedural justice to predict interpersonal deviance. This result appears to indicate that when individuals perceive procedural injustice, and when the information about procedures is considered salient, employees are more likely to engage in workplace deviance, and the victims tend to be organizational members. This finding is not in line with my prediction. I expected that information salience of procedural justice would enhance the effect of procedural justice on workplace deviance. A possible explanation for such finding may lie in the implicit "blame" aspect. Results of this study, along with previous research, demonstrate that procedural injustice has a direct influence on deviant behaviors against both the organization and its members. It is possible that in situations where procedural justice information is salient, that is, when information about rules and procedures are formally established and clearly communicated, employees may feel that the organization has done its due diligence. Therefore, when employees perceive unfair procedures, they turn to hold their supervisor or coworkers responsible for the unfair treatment they experienced, and retaliate against them. This finding is new and should be considered only under the current context due to a lack of consistency with the predicted pattern. Although this empirical test did not yield substantial findings for the predictive interactions, future research is warranted to increase our understanding of contingent variables on the justice effects.

One important argument of this paper is that organizational context matters to the justicedeviance relationship. This argument is developed based on previous research showing that structure is significant to the relationship between justice and positive work outcomes (e.g., Ambrose & Schminke, 2003). Yet the empirical analysis did not find the proposed moderating effects of the structural variables in this study. The lack of finding is disappointing yet understandable. Deviant behaviors are by nature not acceptable in organizations or society at large. There are many factors that influence individual's choice to behave badly. For example, Aquino, Tripp, and Bies (2006) suggest that, not every employee who feels wronged wants or seeks revenge. Sometimes they choose nonaggressive responses such as forgiveness and reconciliation. Deviance may be the last resort for victims to express their dissatisfaction with their work environment. The effect of organizational structure could be mitigated by many other factors that influence the reactions employees take toward unfair perceptions. In contrast, the positive relationship between justice and positive outcome is much more straightforward. Employees should be more willing to behave constructively when treated fairly, than to behave badly when treated unfairly.

Although structural conditions did not exert cross-level significant influences on workplace deviant behaviors, as they did in studies that predicted positive work outcomes, the HLM results raise another interesting observation. That is, a substantial portion of the variance in organizational and interpersonal deviant behavior is accountable at the organizational level. From this perspective, structure did influence the effect of justice on deviance at the organizational level. Empirical studies on workplace deviance demonstrate low variance in the criterion variable for various reasons (Henle, 2005). Given the results of this study, it appears that we can explain more of the variation in workplace behavior by taking into consideration

group level effects. These results are similar to that of Judge et al.'s. In their empirical study of workplace deviance, Judge et al. (2006) demonstrate that roughly half of the overall portion of the total variation in deviant behavior was intraindividual. They indicate that research should be able to explain more of the variation in deviant behavior than has been implicitly assumed in the literature by including a comprehensive set of variables that cross both within- and between-individuals variability in behavior. Although not part of the purpose of this study, these findings contribute to the literature by analyzing and demonstrating the variance explained by the group context.

Overall, this study investigates a number of predictors of workplace deviance in an integrated multilevel framework. The results show that both individual and organizational factors contribute to workplace deviance. The findings also show that modeling multilevel relationships can indeed capture more variance in workplace deviance. Future research should capitalize on the opportunities for integrating theory on justice perceptions with contextual explanations for group level variability in workplace deviance. Such studies have the potential to enrich our understanding of one of the most challenging and costly work behavior in organizations.

Limitations

As always, the limitations of this study should be considered in its interpretation. First, this study adopts a cross-sectional design that limits the extent to which cause-effect relationships can be inferred from the findings. Although the justice—deviance link is theoretical driven and empirical demonstrated in previous research, future research with longitudinal designs that assess these effects over time might help establish the causal status of the relationships examined in this study. Second is the general issue of measuring information

salience. Information salience about each type of justice is a new measure. New measures and new approaches must be interpreted cautiously until a sufficient psychometric record can be established. Third, because the measures were collected via the same method (self-report), the observed relationships among variables might be inflated by common method variance. However, this study obtained a diverse sample from different occupational groups and organizations across industries. A diverse sample has the advantage of minimizing the problem of common method variance, thus balancing some of its weakness (Podasakoff, MacKenzie, Lee, & Podsakoff, 2003). The wide representativeness of the sample also enhances the generalizability of the findings.

In addition, literature indicates that individual personality differences can also predict deviant work behavior (Aquino et al., 1999; Henle, 2005; Lee, Ashton, & Shin, 2001; Liao, Joshi, & Chuang, 2004). I did not control for such factors in this study. Although my control variables include individual demographic characteristics as proxies for predispositions, it would be ideal if I had measured and controlled for relevant individual characteristics. Future studies should consider this possibility.

The lack of support for most of the hypothesized interactive effects is another concern. It raises the question of whether the study design and sample size afforded enough power to detect such effects. This study utilizes a sample of 528 people from 64 departments with an average of eight to nine observations per department. Although the sample size was reasonably adequate, future research using a higher numbers of respondents and more observations per department would be more likely to detect the interactive effects, if they indeed exist.

Finally, the relatively low variance in workplace deviance explained by the model (9.1% for organizational deviance vs. 11.2% for interpersonal deviance) raises concern about the

explanatory power of these constructs. Nevertheless, these results are consistent with the literature indicating that studies on workplace deviance tend to generate low variance (Bennett & Robinson, 2003). Practically, the value of reducing workplace deviance by even a small amount would be substantial for organizations. Workplace deviance annual cost estimates in the United States range from \$6 billion to \$200 billion (Vardi & Weitz, 2004). For example, it is estimated that, every year, employee theft costs organizations US\$50 billion (Coffin, 2003), cyberdeviance costs organizations US\$7.1 billion (Mendoza, 1999), and violence costs organizations US\$4.2 billion (Bensimon, 1997). Assuming that by improving employee work attitudes and the work environment, even a small percentage in the reduction of such deviant behaviors is transformed into billions of dollars annually. Further, deviant behaviors can negatively affect the well-being of employees targeted by such behaviors (Andersson & Pearson, 1999). Organizations have the responsibility to improve their work environment by minimizing deviant incidents that harm individuals. Therefore, the effects of the constructs investigated in this study should not be considered any less important than constructs that show higher levels of predictive power. Future studies should consider other process and moderating variables that may account for additional variance among the deviance constructs.

Implications

As widely documented in the literature, workplace deviance causes substantial financial, physical, and psychological consequences toward organizations and their employees. Therefore, understanding workplace deviance is essential for organizations and their leaders. Organizations that want to minimize the occurrence of workplace deviance could make changes in several aspects. An important finding of this study is that the lower the level of perceived powerlessness,

the less likely employees would be to engage in deviance behaviors. Powerlessness mediates the effects of centralization on interpersonal deviance. Practically, organizations could lower the tendency for employees to react to injustice though empowerment programs that enhance employees' sense of control.

Consistent with previous research, this study demonstrates that procedural justice and interactional justice have a direct, significant effect on the occurrence of workplace deviance. As such, organizations must provide fair work environments and communicate the fairness to increase the perception of organizational fairness in terms of the decision making procedures and personal interactions.

Another important message for managers is that the organizational environment matters to employee work behavior. Despite the importance of organizational characteristics on justice and deviance, research has primarily considered deviant behavior as an individual phenomenon for which individual traits and attributes are the leading contributing factors to deviance. This lack of understanding as to the role of organizational level factors may impede organizations from designing better practices that can reduce the occurrence of employee deviance. As indicated in this study, centralization has a negative impact on attitudes and behavior. Although centralization has the advantage of achieving efficiency for routine tasks, managers need to take into consideration both macro and micro effects in structural design. Organizations should provide practices designed to increase employee participation in decision making and work autonomy. Doing so should help employees reduce perceptions of powerlessness as well as the frequency of workplace deviance. In sum, this study suggests that workplace deviance is a product of multiple factors at both individual and organizational levels. Organizations that wish

to improve their work environment should take a more holistic view that incorporates multiple aspects in the work process to enhance employees' attitudes and behavior.

Conclusions

Despite its limitations, the implications of this study are significant. The results confirm that workplace deviance is not simply an individual-level phenomenon. Instead, the structural context of an organization has an extensive influence over factors that predict whether and when individuals will behave in destructive ways at work. From a research perspective, these findings suggest numerous useful directions for future investigation. From a managerial perspective, these findings indicate that organizations have both the ability and responsibility to influence employee work behaviors by empowerment work practices and by communicating fairness principles and practices. The results confirm that organizational environment matters a great deal when it comes to minimizing negative work behaviors.

Figure 2: Conceptual Model

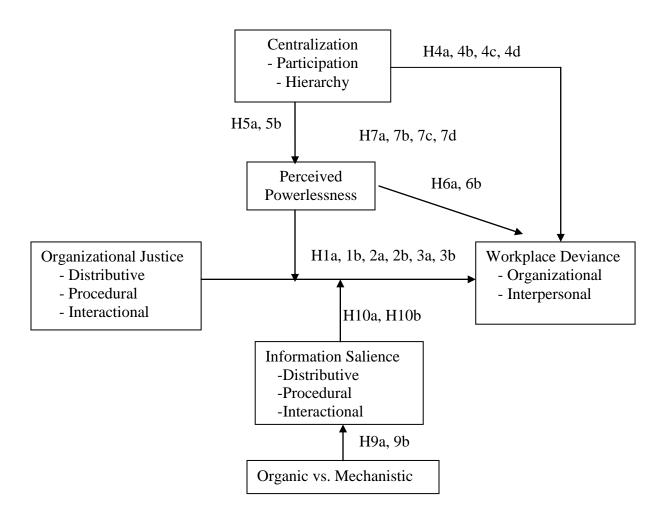
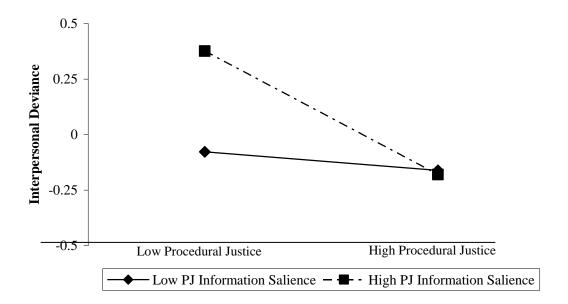


Figure 3 Moderating Effect of Procedural Justice Information Salience on the Relationship between Procedural Justice and Interpersonal Deviance



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Table 2
Construct-Level Measurement Statistics and Correlations of Constructs

	Construct	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Organizational	2.14	.91	.866											
2	Interpersonal	2.01	.12	.63**	.917										
3	Procedural	4.47	.23	.17**	.13**	.900									
4	Interactional	5.54	.16	.12**	.13**	.34**	.941								
5	Distributive	4.50	.55	.13**	.05	.57**	.31**	.946							
6	Powerlessness	4.65	.32	.08	.02	.40**	.28**	.32**	.885						
7	Participation	2.04	.07	.08	.10*	.28**	.07	.18**	.34**	.940					
8	Hierarchy	2.82	.12	.10*	.03	.10*	.02	.14**	.04	.00	.897				
9	PJ Information	3.45	.50	.09*	.13**	.06	.06	.01	.07	.34**	.13**	.920			
10	IJ Information	3.44	.84	.09*	.08	.34**	.02	.01	.01	.04	.10*	.46**	.849		
11	DJ Information	3.60	.53	.16**	.12**	.06	.00	.04	.32**	.01	.10*	.63**	.56**	.934	
12	Organicity	4.11	.17	.12**	.15**	.08	.05	.07	.20**	.27**	.12**	.08	.05	.16**	.901

Note: Numbers on the diagonal represent the constructs composite reliability. $N\!\!=\!\!528$

p < .05 * p < .01

Table 3
Results of Hierarchical Linear Regression Analysis for Organizational Deviance

Control			
D , , G.			
Department Size	0.00 (0.00)**	0.00(0.00)	0.00(0.00)
Position	-0.02 (0.03)	-0.03 (0.03)	-0.03 (0.04)
Gender	0.10 (0.05)*	0.11 (0.05)*	0.11 (0.05)*
Status	-0.05 (0.01)***	-0.05 (0.03)	-0.06 (0.03)*
Social Desirability	0.17 (0.04)***	0.17 (0.04)***	0.17 (0.04)***
Level 1			
Distributive Justice (DJ)	-0.04 (0.06)	-0.04 (0.06)	-0.04 (0.06)
Procedural Justice (PJ)	-0.11 (0.06)*	-0.12 (0.06)*	-0.10 (0.06)+
Interpersonal Justice (IJ)	-0.13 (0.05)*	-0.12 (0.05)*	-0.13 (0.05) **
DJ Information Salience	0.10 (0.08)	0.10 (0.06)	0.09 (0.06)
PJ Information Salience	-0.06 (0.07	-0.06 (0.06)	-0.06 (0.06)
IJ Information Salience	0.04 (0.06)	0.03 (0.06)	0.05 (0.06)
Powerlessness	-0.11 (0.05)*	-0.12 (0.05)*	-0.12 (0.05*
Level 1 Interactive			
DJ x Powerlessness		-0.02 (0.06)	
PJ x Powerlessness		-0.03 (0.05)	
IJ x Powerlessness		0.01 (0.04)	
DJ x DJ Info Salience		0.00 (0.05)	
PJ x PJ Info Salience		-0.05 (0.05)	
IJ x IJ Info Salience		0.05 (0.06)	
Level 2			
Hierarchy	-0.24 (0.09)**	-0.22 (0.11)*	-0.24 (0.12)*
Participation	-0.06 (0.12)	-0.04 (0.14)	-0.06 (0.14)
Organicity	-0.11 (0.11)	-0.11 (0.12)	-0.11 (0.12)
Cross Level Interactive			
DJ x Participation			-0.02 (0.14)
PJ x Participation			0.02 (0.14)
IJ x Participation			0.13 (0.12)
DJ x Hierarchy			-0.15 (0.11)
PJ x Hierarchy			0.04 (0.11)
IJ x Hierarchy			0.04 (0.10)
DJ x Organicity			0.09 (0.11)
PJ x Organicity			-0.09 (0.11)
IJ x Organicity			-0.02 (0.10)
Variance Explained (%)	9.16	9.11	9.24
Model Deviance	1326.7	1349.9	1345.2

N (level 1) =528; N (level 2) = 64. Values in parentheses indicate standard error.

Deviance is a measure of model fit; it equals -2 x the log-likelihood of the maximum-likelihood estimate. The smaller the model deviance, the better the fit. +p < .10, *p < .05, **p < .01, **p < .001, Two-tailed test.

Table 4
Results of Hierarchical Linear Regression Analysis for Interpersonal Deviance

Variable	Model 2a	Model 2b	Model 1c
Control			
Department Size	0.00 (0.00)**	0.00(0.00)	0.00(0.00)
Position	-0.03 (0.03)	-0.02 (0.04)	-0.03 (0.03)
Gender	0.09 (0.05)	0.08 (0.05)	0.09(0.05)+
Status	-0.04 (0.02)*	-0.03 (0.03)	-0.03 (0.03)
Social Desirability	0.17 (0.04)***	0.17 (0.04)***	0.17 (0.04)***
Level 1			
Distributive Justice	-0.00 (0.05)	0.01 (0.06)	-0.00 (0.06)
Procedural Justice	-0.15 (0.06)**	-0.16 (0.06)**	-0.15 (0.06)*
Interpersonal Justice	-0.10 (0.05)*	-0.10 (0.05)*	-0.10 (0.05)*
DJ Information Salience	0.01 (0.06)	0.02 (0.06)	0.01 (0.06)
PJ Information Salience	0.10 (0.05)	0.11 (0.06)	0.09 (0.06)
IJ Information Salience	0.04 (0.04)	0.04 (0.06)	0.05 (0.06)
Powerlessness	-0.03 (0.06)	-0.03 (0.05)	-0.03 (0.05)
Level 1 Interactive			
DJ x Powerlessness		0.04 (0.05)	
PJ x Powerlessness		-0.08 (0.05)	
IJ x Powerlessness		-0.02 (0.04)	
DJ x DJ Info Salience		0.03 (0.05)	
PJ x PJ Info Salience		-0.12 (0.05)*	
IJ x IJ Info Salience		0.05 (0.06)	
Level 2			
Hierarchy	-0.32 (0.09)***	-0.28 (0.11)*	-0.34 (0.12)**
Participation	0.27 (0.10)**	0.31 (0.15)*	0.26(0.15)+
Organicity	-0.11 (0.12)	-0.11 (0.12)	-0.11 (0.12)
Cross Level Interactive			
DJ x Participation			0.02 (0.14)
PJ x Participation			0.07 (0.14)
IJ x Participation			0.04 (0.12)
DJ x Hierarchy			0.04 (0.11)
PJ x Hierarchy			-0.06 (0.11)
IJ x Hierarchy			0.04 (0.10)
DJ x Organicity			0.13 (0.11)
PJ x Organicity			-0.15 (0.11)
IJ x Organicity			0.01 (0.11)
Variance Explained (%)	11.2	11.07	11.42
Model Deviance	1308.1	1326.0	1330.6

N (level 1) =528; N (level 2) = 64. Values in parentheses indicate standard error.

Deviance is a measure of model fit; it equals -2 x the log-likelihood of the maximum-likelihood estimate. The smaller the model deviance, the better the fit.

⁺ p < .10, *p < .05, **p < .01, ***p < .001, Two-tailed test.

Table 5
Results of Hierarchical Linear Regression Analysis for Powerlessness and Information Salience

	Powerlessness	Information Salience				
Variable		Distributive Justice	Procedural Justice	Interactional Justice		
Control						
Department Size	0.00(0.00)	0.00(0.00)	0.00(0.00)	-0.00 (0.00)		
Position	0.08 (0.04)*	-0.04 (0.04)	-0.10 (0.04) **	-0.08 (0.03)*		
Gender	0.02 (0.05)	0.09(0.05)	0.13 (0.05) **	0.12 (0.04)**		
Status	-0.02 (0.03)	0.01 (0.03)	0.02 (0.03)	-0.00 (0.02)		
Social Desirability	0.04 (0.04)	-0.02 (0.04)	0.00 (0.04)	-0.06 (0.04)		
Independent						
Hierarchy	0.21 (0.09)**					
Participation	-0.34 (0.12)**					
Organicity		0.26 (0.10)**	0.23 (0.08)**	0.13 (0.10)		
Model Deviance	1454.3	1398.5	1426.9	1308.9		

N (level 1) =528; N (level 2) = 64. Values in parentheses indicate standard error.

Deviance is a measure of model fit; it equals -2 x the log-likelihood of the maximum-likelihood estimate. The smaller the model deviance, the better the fit.

^{*} p < .05, ** p < .01, *** p < .001, Two-tailed test.

Table 6 Exploratory Factor Analysis Factor Loadings for Information Salience Measure

			Factor	
Constructs	Items	1	2	3
	Relevant to the work I do	.852	.294	.288
DJ Information Salience	Available whenever I need it	.787	.326	.278
$(\alpha = .917)$	Ease to understand	.797	.318	.318
	Relevant to the work I do	.262	.859	.198
PJ Information Salience	Available whenever I need it	.345	.798	.240
$(\alpha = .887)$	Ease to understand	.241	.859	.245
	Relevant to the work I do	.553	.198	.661
IJ Information Salience (α	Available whenever I need it	.270	.314	.818
= .864)	Ease to understand	.285	.226	.931

Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization.

Table 7
Confirmatory Factor Analysis Factor Loadings for Established Scales

Construct	Items	Loading	
	Have you been able to express your views and feelings during those procedures?	.7690	
	Have you had influence over the outcomes arrived at by those procedures?	.7820	
Procedural	Have those procedures been applied consistently?	.7828	
Justice	Have those procedures been free of bias?	.7565	
$\alpha = .913$	Have those procedures been based on accurate information?	.7798	
	Have you been able to appeal the outcomes arrived at by those procedures?	.6873	
	Have those procedures upheld ethical and moral standards?	.6865	
	Do your outcomes reflect the effort your have put into your work?	.8896	
Distributive	Are your outcomes appropriate for the work you have completed?	.9309	
Justice	Do your outcomes reflect what you have contributed to the organization?	.9159	
$\alpha = .953$	Are your outcomes justified, given your performance?	.8714	
	Has (he/she) treated you in a polite manner?	.9134	
	Has (he/she) treated you with dignity?	.9229	
	Has (he/she) treated you with respect?	.8896	
	Has (he/she) refrained from improper remarks or comments?	.8276	
T., 4 4 1	Has (he/she) been candid in (his/her) communications with you?		
Interactional Justice	Has (he/she) explained the procedures used to make job decisions thoroughly?		
$\alpha = .943$	Were (his/her) explanations regarding the procedures used to make job decisions reasonable?		
	Has (he/she) communicated details in a timely manner?		
	Has (he/she) seemed to tailor (his/her) communications to individuals' specific needs?		
	How frequently do you	0504	
Participation	participate in the decision to hire new staff?	.8704	
$\alpha = .943$	participate in the decisions on promotion of any of the professional staff?	.8135	
	participate in decisions on the adoption of new policies?	.9077	
	participate in decisions on the adoption of new programs?	.8803	
	How true are the following statements about your company?		
	There can be little action taken here until a supervisor approves a decision.	.7501	
Autonomy	A person who wants to make his own decisions would be quickly discouraged here.		
$\alpha = .897$	Even small matters have to be referred to someone higher up to make a final decision.	.8546	
	I have to ask my boss before I do almost anything.	.7984	
	Any decision I make has to have my bosses approval.	.7216	
	ž ÅÅ		

Construct	Items	Loading		
	Highly structured channel Open channel	.7083		
	Uniform managerial styles Managers operating styles vary	.7191		
Organicity	Most say to line managers Experts have the most say	.6591		
$\alpha = .884$	Hold fast to management principals Adapting freely	.6864		
	Follow formal procedures Getting things done	.8057 .8328		
	Sophisticated controls Loose, informal control			
	Adhere to formal job descriptions Individuals define proper behavior	.8462		
	I have enough power in this department to control events that might affect my job.	.8975		
Powerlessness $\alpha = .882$	In this department, I can prevent negative things from affecting my work situation.	.8010		
	I understand this department well enough to be able to control things that affect me.	.8456		
	Taken merchandize from work without permission.	.5265		
	Spent too much time fantasizing or daydreaming instead of working.			
	Falsified a receipt to get more money for work related expenses.			
	Taken an additional or longer break than is acceptable at your workplace.			
	Came in late to work without permission.			
Organizational Deviance	Littered your work environment.			
$\alpha = .874$	Neglected to follow your manager's instructions.			
	Intentionally worked slower than you could have worked.			
	Discussed confidential company information with an unauthorized person.			
	Used an illegal drug or consumed alcohol on the job.			
	Put little effort into your work.	.6363		
	Dragged out work in order to get overtime.	.5698		
	Made fun of someone at work.	.7527		
	Said something hurtful to someone at work.			
Interpersonal	Made an offensive ethnic, religious, or racial remark at work.			
Deviance $\alpha = .922$	Cursed at someone at work.	.7923		
u – .922	Played a mean prank on someone at work.			
	Acted rudely toward someone at work.	.8392		
	Publicly embarrassed someone at work.	.7552		

Table 8
Confirmatory Factor Analysis for A Priori Measurement Models

Model	χ^2	df	χ^2/df	IFI	CFI	RMSEA
12-factor	5333.57	2279	2.34	.867	.866	.050
11-factor (1)	5840.35	2290	2.55	.846	.844	.054
11-factor (2)	7022.86	2290	3.07	.794	.792	.063
10-factor (1)	8626.65	2300	3.75	.725	.722	.072
10-factor (2)	8001.91	2300	3.48	.752	.750	.069
10-factor (3)	5985.28	2300	2.60	.840	.838	.055
9-factor	8596.48	2309	3.72	.726	.724	.072
6-factor	11092.63	2330	4.76	.618	.616	.132
5-factor	12301.52	2335	5.27	.566	.563	.090
4-factor	12788.04	2339	5.47	.544	.542	.092

Note. N=528. All chi-square values are significant at p < .000.

IFI = incremental fit index; CFI = comparative fit index;

RMSEA = root-mean-square error of approximation

Model specifications:

12-factor model: DJ, PJ, IJ, OD, ID, centralization 1 (participation in decision making), centralization 2 (hierarchy of authority), organicity, DJ information salience, PJ information salience, IJ information salience, powerlessness.

11-factor model (1): OD and ID as one factor, others separate.

11-factor model (2): centralization 1 and 2 as one factor, others separate.

10-factor model (1): DJ, PJ, and IJ as one factor, others separate.

10-factor model (2): centralization 1 and 2, and organicity as one factor, others separate.

10-factor model (3): DJ info salience, PJ info salience, and IJ info salience as one factor, others separate.

9-factor model: centralization 1 and 2, organicity, and powerlessness as one factor, others separate.

6-factor Model: justice (DJ, PJ, IJ), deviance (OD, ID), centralization (1 and 2), organicity, information salience (DJ, PJ, IJ), powerlessness.

5-factor model: justice (DJ, PJ, IJ), deviance (OD, ID), structure (centralization 1, centralization 2, and organicity), information salience (DJ, PJ, IJ), powerlessness.

4-factor model: justice (DJ, PJ, IJ), deviance (OD, ID), structure-related (centralization 1, centralization 2, organicity, and powerlessness), information salience (DJ, PJ, IJ).

APPENDIX A: SURVEY

BACKGROUND INFORMATION

The following information is being collected for statistical purposes only. This information will be combined for all respondents and analyzed at the group level. Once the data has been received, this page will be detached from the survey and destroyed.

How long have you be	een with this company?	years	months	
How long have you be	een in your current department?	у	ears months	
Approximately how m	nany people work in your depart	ment?		
Approximately how m your best estimate.)	nany employees work for your co	ompany o	overall? (If you don	't know for sure, make
Please indicate the n your current position	umber of levels between the	top orga	nizational level (p	resident or CEO) and
Position :	Non-supervisory		_Supervisory	
Gender:	Female		_Male	
Do you work:	Full-time		_Part-time	
Age :Under41-45	20 <u>20-25</u>	26-30 _51-55	31-35 _ 56-60 _	36-40 60 or over
Highest level of education completed:	Junior High School High School Some College College Degree Some Graduate School Graduate Degree	1		
Ethnic group or nationality:	African American American Indian Hispanic American		_ White American _ Asian American _ Other	
Union member:	Yes	_No		

In this section we'd like to know how you feel about how things work around your department. For each question, please circle the number that best matches your response to each statement.

The following items refer to the <u>procedures</u> used to determine things that affect you on your job, like pay raises, promotions, opportunities for training, etc. To what extent:	To sm				gre	To a xtent	
Have you been able to express your views and feelings during those procedures?	1	2	3	4	5	6	7
Have you had influence over the outcomes arrived at by those procedures?	1	2	3	4	5	6	7
Have those procedures been applied consistently?	1	2	3	4	5	6	7
Have those procedures been free of bias?	1	2	3	4	5	6	7
Have those procedures been based on accurate information?	1	2	3	4	5	6	7
Have you been able to appeal the outcomes arrived at by those procedures?	1	2	3	4	5	6	7
Have those procedures upheld ethical and moral standards?	1	2	3	4	5	6	7

In this section, we'd like you to focus specifically on the INFORMATION regarding the <u>procedures</u> used to determine things that affect you on your job. To what extent is the information about these procedures:												
Relevant to the work I do	1	2	3	4	5	6	7	Not relevant				
Available whenever I need it	1	2	3	4	5	6	7	Not available				
Ease to understand	1	2	3	4	5	6	7	Difficult to understand				
Important to know	1	2	3	4	5	6	7	Not important to know				

The following items refer to decisions about the actual <u>outcomes</u> you receive on your job, such as pay raises, promotions, opportunities for training, etc. To what extent:	To a sma	<u>ll</u>		2	grea		To a tent
Do your outcomes reflect the effort your have put into your work?	1	2	3	4	5	6	7
Are your outcomes appropriate for the work you have completed?	1	2	3	4	5	6	7
Do your outcomes reflect what you have contributed to the organization?	1	2	3	4	5	6	7
Are your outcomes justified, given your performance?	1	2	3	4	5	6	7

In this section, we'd like you to focus specifically on the INFORMATION regarding the <u>outcomes</u> you receive on your job. To what extent is the information about these outcomes:												
Relevant to the work I do	1	2	3	4	5	6	7	Not relevant				
Available whenever I need it	1	2	3	4	5	6	7	Not available				
Ease to understand	1	2	3	4	5	6	7	Difficult to understand				
Important to know	1	2	3	4	5	6	7	Not important to know				

About your Supervisor

The following items refer to your <u>immediate supervisor</u> . To what extent:		a <u>nall</u> tent			gr	To a extent	
Has (he/she) treated you in a polite manner?	1	2	3	4	5	6	7
Has (he/she) treated you with dignity?	1	2	3	4	5	6	7
Has (he/she) treated you with respect?	1	2	3	4	5	6	7
Has (he/she) refrained from improper remarks or comments?	1	2	3	4	5	6	7
Has (he/she) been candid in (his/her) communications with you?	1	2	3	4	5	6	7
Has (he/she) explained the procedures used to make job decisions thoroughly?	1	2	3	4	5	6	7
Were (his/her) explanations regarding the procedures used to make job decisions reasonable?	6	7	1	2	3	4	5
Has (he/she) communicated details in a timely manner?	1	2	3	4	5	6	7
Has (he/she) seemed to tailor (his/her) communications to individuals' specific needs?	1	2	3	4	5	6	7

In this section, we'd like you to focus specifically on the INFORMATION regarding the way the <u>supervisor</u> treats the employees. To what extent is the information about the supervisor:												
Relevant to the work I do	1	2	3	4	5	6	7	Not relevant				
Available whenever I need it	1	2	3	4	5	6	7	Not available				
Ease to understand	1	2	3	4	5	6	7	Difficult to understand				
Important to know	1	2	3	4	5	6	7	Not important to know				

In this section we would like you to think about the relationship you have with your <u>immediate</u> <u>supervisor</u>. Indicate the extent to which you agree or disagree with each of the following statements by circling the response that most accurately reflects your position. (1=strongly disagree, 2=disagree, 3=slightly disagree, 4=neither disagree or agree, 5=slightly agree, 6=agree, 7=strongly agree)

		ongly agre	•		Sı	tron Ag	gly ree
We have a sharing relationship. We can both freely share our ideas, feelings, and hopes.	1	2	3	4	5	6	7
I can talk freely to this individual about difficulties I am having at work and know that (he/she) will want to listen.	1	2	3	4	5	6	7
We would both feel a sense of loss if one of us was transferred and we could no longer work together.	1	2	3	4	5	6	7
If I shared my problems with this person, I know (he/she) would respond constructively and caringly.	1	2	3	4	5	6	7

We have both made considerable emotional investments in our working relationship.	1	2	3	4	5	6	7
This person approaches (his/her) job with professionalism and dedication.	1	2	3	4	5	6	7
		ongly agre	•		St	tron Ag	gly
Give this person's track record, I see no reason to doubt (his/her) competence and preparation for the job.	1	2	3	4	5	6	7
I can rely on this person not to make my job more difficult by careless work.	1	2	3	4	5	6	7
Most people, even those who aren't close friends of this individual, trust and respect (him/her) as a coworker	1	2	3	4	5	6	7
Other work associates of mine who must interact with this individual consider (him/her) to be trustworthy.	1	2	3	4	5	6	7
If people knew more about this individual and (his/her) background, they would be more concerned and monitor (his/her) performance more closely.	1	2	3	4	5	6	7

About Your Work Situation

Now we would like to ask you a few questions on how you feel about your work situation. Please indicate how much you agree or disagree with the following statements.		ong			Strongly Agree			
I have enough power in this department to control events that might affect my job.	1	2	3	4	5	6	7	
In this department, I can prevent negative things from affecting my work situation.	1	2	3	4	5	6	7	
I understand this department well enough to be able to control things that affect me.	1	2	3	4	5	6	7	
The work I do is very important to me.	1	2	3	4	5	6	7	
My job activities are personally meaningful to me.	1	2	3	4	5	6	7	
The work I do is meaningful to me.	1	2	3	4	5	6	7	
I am confident about my ability to do my job.	1	2	3	4	5	6	7	
I am self-assured about my capabilities to perform my work activities.	1	2	3	4	5	6	7	
I have mastered the skills necessary for my job.	1	2	3	4	5	6	7	
I have significant autonomy in determining how I do my job.	1	2	3	4	5	6	7	
I can decide on my own how to go about doing my work.	1	2	3	4	5	6	7	
I have considerable opportunity for independence and freedom in how I do my job.	1	2	3	4	5	6	7	
My impact on what happens in my department is large.	1	2	3	4	5	6	7	
I have a great deal of control over what happens in my department.	1	2	3	4	5	6	7	
I have significant influence over what happens in my department.	1	2	3	4	5	6	7	

Please circle how often you get engage in the following behaviors. Your responses are strictly confidential and no manager or coworkers will ever see them. Your honesty will be highly appreciated.	Never	Once	A Few Times	Several Times	Monthly	Weekly	Daily
Taken merchandize from work without permission.	1	2	3	4	5	6	7
Spent too much time fantasizing or daydreaming instead of working.	1	2	3	4	5	6	7
Falsified a receipt to get more money for work related expenses.	1	2	3	4	5	6	7
Taken an additional or longer break than is acceptable at your workplace.	1	2	3	4	5	6	7
Came in late to work without permission.	1	2	3	4	5	6	7
Littered your work environment.	1	2	3	4	5	6	7
Neglected to follow your manager's instructions.	1	2	3	4	5	6	7
Intentionally worked slower than you could have worked.	1	2	3	4	5	6	7
Discussed confidential company information with an unauthorized person.	1	2	3	4	5	6	7
Used an illegal drug or consumed alcohol on the job.	1	2	3	4	5	6	7
Put little effort into your work.	1	2	3	4	5	6	7
Dragged out work in order to get overtime.	1	2	3	4	5	6	7
Made fun of someone at work.	1	2	3	4	5	6	7
Said something hurtful to someone at work.	1	2	3	4	5	6	7
Made an offensive ethnic, religious, or racial remark at work.	1	2	3	4	5	6	7
Cursed at someone at work.	1	2	3	4	5	6	7
Played a mean prank on someone at work.	1	2	3	4	5	6	7
Acted rudely toward someone at work.	1	2	3	4	5	6	7
Publicly embarrassed someone at work.	1	2	3	4	5	6	7

Listed below are a number of statements concerning personal attitudes and traits. Please read each of them and decide whether the statement is <i>true</i> or <i>false</i> as it pertains to you personally.										
I like to gossip at times.	True	False								
There have been occasions when I took advantage of someone.	True	False								
I'm always willing to admit it when I make a mistake.	True	False								
I always try to practice what I preach.	True	False								
I sometimes try to get even rather than forgive and forget.	True	False								
At times I have really insisted on having things my own way.	True	False								
There have been occasions when I felt like smashing things.	True	False								
I never resent being asked to return a favor.	True	False								
I have never been irked when people expressed ideas very different from my own.	True	False								
I have never deliberately said something that hurt someone's feelings.	True	False								

In this section, please indicate how often you engage in the following activities. (1=never, 7=always)	Nev	ver				Alv	lways	
Help others who have been absent.	1	2	3	4	5	6	7	
Willingly give your time to help others who have work-related problems.	1	2	3	4	5	6	7	
Adjust your work schedule to accommodate other employees' requests for time off.	1	2	3	4	5	6	7	
Go out of the way to make newer employees feel welcome in the work group.	1	2	3	4	5	6	7	
Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.	1	2	3	4	5	6	7	
Give up time to help others who have work or non-work problems.	1	2	3	4	5	6	7	
Assist others with their duties.	1	2	3	4	5	6	7	
Share personal property with others to help their work.	1	2	3	4	5	6	7	
Attend functions that are not required but that help the organizational image.	1	2	3	4	5	6	7	
Keep up with developments in the organization.	1	2	3	4	5	6	7	
Defend the organization when other employees criticize it.	1	2	3	4	5	6	7	
Show pride when representing the organization in public.	1	2	3	4	5	6	7	
Offer ideas to improve the functioning of the organization.	1	2	3	4	5	6	7	
Express loyalty toward the organization.	1	2	3	4	5	6	7	
Take action to protect the organization from potential problems.	1	2	3	4	5	6	7	
Demonstrate concern about the image of the organization.	1	2	3	4	5	6	7	

The following items concern how information is communicated about your job. To what extent does/do:	To sm ext					To a great tent	
Top management decides work arrangements and provides instructions.	1	2	3	4	5	6	7
Employees decide work arrangements through discussions with coworkers.	1	2	3	4	5	6	7
Employees follow documented rules in completing their work.	1	2	3	4	5	6	7
Employees share information about work.	1	2	3	4	5	6	7
Employees have meetings frequently to discuss issues in the department.	1	2	3	4	5	6	7
Supervisors often seek our advice and provide feedback to our suggestions.	1	2	3	4	5	6	7
There exists a high level of mutual communication between employees and top management	1	2	3	4	5	6	7

About Your Work Environment												
How frequently do you	Never	Seldom	Someti	mes		Ofte	en	A	lwa	ys		
participate in the decision to hire new staff?	1	2	3			4		5				
participate in the decisions on promotion of any of the professional staff?	1	2	3	3			4			5		
participate in decisions on the adoption of new policies?	1			4	5							
participate in decisions on the adoption of new programs?	1	2	3	4				5				
How true are the following statements about your company?	Definitely False	Mostly False	Neither nor Fa		ľ	Mostly True		Definitel True		•		
There can be little action taken here until a supervisor approves a decision.	1	2			4		5					
A person who wants to make his own decisions would be quickly discouraged here.	1	2		4			5					
Even small matters have to be referred to someone higher up to make a final decision.	1			4								
I have to ask my boss before I do almost anything.	1 2 3 4							5				
Any decision I make has to have my bosses approval.	1	2	3		4			5				
This section asks you to consider more supervisor. How strongly do you agre following statements about <u>your compgeneral</u> ?					Strongly Agree							
I can confidently use management's word as	the basis for n	ny decisions	S	1	2	3	4	5	6	7		
I would be foolish to expect this organization	n to make sacri	ifices for em	ployees.	1	2	3	4	5	6	7		
Management can be counted on to come thro				1	2	3	4	5	6	7		
Around representatives of management, I tal and my interests.	nyself	1	2	3	4	5	6	7				
Management keeps me informed about thing		1	2	3	4	5	6	7				
This organization's word is its bond.		1	2	3	4	5	6	7				
With the management of this organization, I acts of kindness	hen I see	1	2	3	4	5	6	7				
In my work, I know that I can count on full support from management. 1 2									6	7		
If management thought they could get away with it, they would take advantage of employees. 1 2 3 4 5 6										7		
The more I know about management's motive	ves, the more c	autious I be	come.	1	2	3	4	5	6	7		
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The following pairs of statements describe different management philosophies. For each pair, circle the number that best describes the management philosophy in your department. For example, a "1" means the left-hand statement perfectly describes your department. A "7" indicates that the right-hand statement perfectly describes your department. A "4" indicates that your department is balanced between the two views. In general, the management philosophy in my department favors:

Highly structured channels of communication and a highly restricted access to important financial and operating information.	1	2	3	4	5	6	7	Open channels of communication with important financial and operating information flowing quite freely throughout the business unit.
A strong insistence on a uniform managerial style throughout the business unit.	1	2	3	4	5	6	7	Managers' operating styles allowed to range freely from the very formal to the very informal.
A strong emphasis on giving the most say in decision making to formal line managers.	1	2	3	4	5	6	7	A strong tendency to let the expert in a given situation have the most say in decision making even if this means temporary bypassing of formal line authority.
A strong emphasis on holding fast and true management principles despite any changes in business conditions.	1	2	3	4	5	6	7	A strong emphasis on adapting freely to changing circumstances without too much concern for past practices.
A strong emphasis on always getting personnel to follow the formally laid down procedures.	1	2	3	4	5	6	7	A strong emphasis on getting things done even if it means disregarding formal procedures.
Tight formal control of most operations by means of sophisticated control and information systems.	1	2	3	4	5	6	7	Loose, informal control; heavy dependence on informal relationships and norms of cooperation for getting work done.
A strong emphasis on getting line and staff personnel to adhere closely to formal job descriptions.	1	2	3	4	5	6	7	A strong tendency to let the requirements of the situation and the individual's personality define proper on-job behavior.

In this section, we'd like you to think about an experience you've had that affected your job negatively (e.g. did not get pay raises/promotions/opportunities for training, etc.) Regarding that experience, how much do you think that the cause of such experience is something:

That reflects an aspect of the situation	1	2	3	4	5	6	7	That reflects an aspect of the decision maker
Manageable by the decision maker	1	2	3	4	5	6	7	Not manageable by the decision maker
Permanent	1	2	3	4	5	6	7	Temporary
The decision maker can regulate	1	2	3	4	5	6	7	The decision maker cannot regulate
Over which the decision maker have control	1	2	3	4	5	6	7	Over which the decision maker does not have control
Inside of the decision maker	1	2	3	4	5	6	7	Outside of the decision maker
Stable over time	1	2	3	4	5	6	7	Variable over time
Under the power of the decision maker	1	2	3	4	5	6	7	Not under the power of the decision maker
Something about the situation	1	2	3	4	5	6	7	Something about the decision maker
The decision should have been made differently	1	2	3	4	5	6	7	The decision should not have been made differently
Unchangeable	1	2	3	4	5	6	7	Changeable
Decision maker have other choices	1	2	3	4	5	6	7	Decision maker have not other choices
Intended by the decision maker	1	2	3	4	5	6	7	Not intended by the decision maker
Important for me	1	2	3	4	5	6	7	Not important for me
Circumstance dictates the decision	1	2	3	4	5	6	7	The decision maker dictates the decision

That's it!

Please seal the survey in the envelope provided, and return it to us as soon as possible. If you have any questions please give us a call at 269-324-8098.

Thank You!!

APPENDIX B: IRB APPROVAL FORM



Office of Research & Commercialization

February 16, 2006

Jie Guo McCardle Maureen Ambrose, Ph.D. 1495 Lancelot Ct. Portage, MI 49002

Dear Ms. McCardle and Dr. Ambrose.

The University of Central Florida's Institutional Review Board (IRB) received your protocol IRB #06-3226 entitled, "Individual and Structural Determinants of Employee Behavior at Work." The IRB Chair did not have any concerns with the proposed project and has indicated that under federal regulations, Category #2, research involving the use of educational tests, survey or interview procedures, or the observation of public behavior, so long as confidentiality is maintained, this research is exempt from further review by our IRB, so an approval is not applicable and a renewal within one year is not required. The data is public information.

Please accept our best wishes for the success of your endeavors. Should you have any questions, please do not hesitate to call me at 407-823-2901.

Cordially,

Barbara Ward

Barbara Ward, CIM IRB Coordinator

Copies: IRB File

Maureen Ambrose, Ph.D.

BW:jm