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DISSERTATION

PREDICTING WORKPLACE DEVIANCE FROM THE INTERACTION BETWEEN ORGANIZATIONAL JUSTICE AND PERSONALITY

Submitted by

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In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

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Spring 2001

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ABSTRACT OF DISSERTATION

PREDICTING WORKPLACE DEVIANCE FROM THE INTERACTION BETWEEN ORGANIZATIONAL JUSTICE AND PERSONALITY

This study evaluated the validity of an interactional approach for studying workplace deviance. It was predicted that the relationship between organizational justice and workplace deviance would be stronger for employees who are low on socialization, or high on impulsivity or trait anger. Data collected from 151 employed undergraduate students offered some support for person by situation interactions. Socialization and impulsivity moderated the relationships between some types of organizational justice and workplace deviance in such a way that there was only a relationship between justice and deviance when employees scored lower on socialization or higher on impulsivity. Implications for research and organizations are discussed.

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Predicting Workplace Deviance from the Interaction between Organizational Justice and Personality

Until recently, workplace deviance has been a neglected topic in industrial/organizational (I/O) psychology (e.g., Griffin, O'Leary-Kelly, & Collins, 1998a; Greenberg & Scott, 1996; Robinson & Bennett, 1995) even though other disciplines such as sociology and criminology have long examined it. Instead, I/O psychologists emphasize behaviors such as organizational citizenship behavior or contextual performance that result in positive outcomes for organizations. However, attention is turning to the study of behavior at the other end of the spectrum, that is, behaviors that negatively affect organizations. Deviant behaviors in the workplace have been the topic of several books (e.g., Giacalone & Greenberg, 1997; Griffin, O'Leary-Kelly, & Collins, 1998b), numerous chapter reviews (e.g., Griffin et al., 1998a; Robinson & Greenberg, 1998), and many empirical studies (e.g., Robinson & O'Leary-Kelly, 1998; Skarlicki & Folger, 1997; Skarlicki, Folger, & Tesluk, 1999).

The purpose of this study is to contribute to the literature on workplace deviance by empirically examining several potential causes of its occurrence. This study adopts an interactional approach by examining both person and situation based explanations of workplace deviance and their subsequent interactions. First, workplace deviance is defined and then its prevalence and costs are discussed. This discussion is followed by a summary of the person and situation variables hypothesized in this study to explain workplace deviance.

Definition of Workplace Deviance

Although there are many definitions and labels to describe deviant work behaviors, most definitions share two common characteristics. First, most agree that these acts are intentional. Current employees voluntarily engage in deviance because they lack motivation to adhere to organizational norms or are prompted to violate those norms (Kaplan, 1975). Second, these behaviors are intended to harm the organization and/or its members. Thus, workplace deviance is defined as voluntary behaviors that violate significant company norms, goals, policies, or rules and threaten the well-being of the organization and/or its employees (Hollinger & Clark, 1983; Jones, 1980; Kemper, 1966; Robinson & Bennett, 1995; Sieh, 1987).

Hollinger and Clark (1982a) proposed two types of workplace deviance: production and property deviance. Production deviance pertains to behaviors that violate norms of acceptable production levels, and includes physical withdrawal (e.g., turnover, absenteeism, lateness), psychological withdrawal (e.g., on-the-job alcohol or drug use, daydreaming), and types of organizational sabotage (e.g., intentionally working slowly). In contrast, property deviance is the unauthorized taking or damaging of organizational property, products, or money, which includes behaviors like theft.

Robinson and Bennett (1995) expanded Hollinger and Clark's operationalization of workplace deviance by incorporating acts directed at individuals in addition to those directed at organizations. Their typology of deviant work behaviors includes two dimensions: serious versus minor and organizational versus individual directed behaviors. These two dimensions produce four types of workplace deviance, two of which are production and property deviance, which represent both minor and serious acts directed

toward organizations, respectively. The other two types of workplace deviance refer to acts directed toward individuals of a minor (i.e., political deviance) and serious (i.e., interpersonal aggression) nature. Political deviance is characterized by social interaction that places another at a personal or political disadvantage. Examples of political deviance include showing favoritism, gossiping about coworkers, and blaming coworkers. On the other hand, interpersonal aggression refers to behaving in an aggressive or hostile way toward others, which can include threatening, arguing, or physically assaulting individuals in the workplace. Recent research by Bennett and Robinson (2000) acknowledged that serious versus minor forms of deviance do not represent different types of deviance and proposed that workplace deviance can be represented by the general factors of interpersonal and organizational deviance. Confirmatory factor analyses conducted by the authors supported a two factor structure of workplace deviance.

Traditionally, research on workplace deviance has focused on theft or withdrawal behaviors, which encompass a narrow definition of the construct. Using measures that only assess one form of deviance (e.g., theft), instead of a variety of deviant behaviors, does not allow for the prediction of workplace deviance or further what we know about this construct in general. By emphasizing a range of deviant behaviors, general conclusions about employees' tendencies to engage in workplace deviance can be drawn and its occurrence can be predicted and prevented (Robinson & Bennett, 1997). In addition, single acts of deviance such as theft are typically a low base rate phenomenon, which results in small variance and a positively skewed distribution of these types of behaviors (Hulin & Rousseau, 1980). However, by expanding the definition to include

less extreme forms of deviant behavior, a larger base rate may be attained (Hulin & Rousseau, 1980). The current study addresses these concerns by examining a wide range of deviant work behaviors directed at both organizations (i.e., organizational deviance) and individuals within organizations (i.e., interpersonal deviance).

Prevalence and Costs of Workplace Deviance

Workplace deviance is an important topic for researchers and organizations alike due to its increasing occurrence and potential consequences. Attempts have been made to estimate the prevalence of workplace deviance, especially theft. Although these estimates typically rely on self-report data due to the infrequency employees are caught engaging in deviance, especially serious forms like theft, they do give some indication of how widespread workplace deviance is. Hollinger and Clark (1983) found 28% of employees in manufacturing jobs steal, 33% in hospitals, and 35% of retail employees. Production deviance figures were higher among the aforementioned industries (65%, 69%, and 82%, respectively). Concentrating on the fast food and supermarket industries, Slora (1989) found the following were common: cash/property theft (62% for fast food and 43% for supermarkets), time theft (78% for fast food and 77% for supermarkets), and counterproductivity (84% for fast food and 75% for supermarkets), which included substance use at work, arguing and fighting, and wasting or damaging organizational property. Boye and Slora (1993) also examined supermarkets, but differentiated deviance based on its severity. Percentages of employees engaging in severe forms of cash/property theft, time theft, and counterproductivity were 35%, 7%, and 69%, respectively.

Some researchers have expressed skepticism towards the accuracy of the aforementioned estimates (e.g., Guastello & Rieke, 1991). In response, Wimbush and Dalton (1997) used two techniques (i.e., randomized-response and unmatched-count) that guarantee respondents' anonymity, in hopes of obtaining more accurate base rate estimates. The two methods produced a base rate of approximately 59% for theft among employees with access to cash, supplies, merchandise, or products that could be easily converted to cash.

The prevalence of workplace deviance is especially disturbing when the costs to both affected organizations and individuals are considered. Although exact figures on the costs associated with workplace deviance are hard to determine due to social desirability effects and differing definitions of deviance, estimates of theft by employees in the U.S. have ranged from $6 to $200 billion annually (Murphy, 1993). Employee theft and dishonesty have also been cited as the reason for 30% of all business failures (Bullard & Resnik, 1983). In addition to financial costs, organizations may experience bad publicity, which could result in a tarnished public image. This, in turn, may make it difficult for organizations to recruit and retain good employees and may also alienate shareholders and customers.

Besides the costs to organizations, there are detrimental effects of workplace deviance on individuals. Employees who are targets of workplace deviance, compared with those who are not, are twice as likely to have stress related problems, decreased productivity, low morale, and lost work time (O'Leary-Kelly, Griffin, & Glew, 1996). In addition, targets of deviance may experience more turnover (Giacalone, Riordan, & Rosenfeld, 1997), damaged self-esteem, increased fear and insecurity at work, and

psychological and physical pain (Griffin et al., 1998a). These negative consequences may also spillover to families of victims or those witnessing the incident. Even customers may experience the effects of workplace deviance through increased product and service prices invoked to compensate for the costs of deviance. In fact, Touby (1994) estimated that approximately two to five percent of each dollar of product sold is used to pay for expenses associated with workplace deviance.

Interactional Approach for Explaining Workplace Deviance

The determinants of behavior have been hotly debated. One perspective argues that behavior is largely determined by individual differences. That is, traits or personalities dictate how individuals will behave irrespective of the situation. The goal of this perspective is to identify consistency in individual differences across many different situations. Psychologists such as Sigmund Freud, Francis Galton, Raymond Cattell, and Gordon Allport held a person based or trait perspective. Conversely, behaviorists or situationalists, such as John Watson and B. F. Skinner, believe behavior is solely a product of the environment. Thus, individuals will behave in a certain way depending on the situation they are in regardless of their individual characteristics. This perspective emphasizes variations in behavior between situations.

Historically, the study of workplace deviance focused on identifying individuals with inborn predispositions towards deviance. However, an early study by Hartshorne and May (1928) threatened this perspective. These researchers devised 33 tests for young school children that included the opportunity to lie, cheat, or steal. Based on the results of these tests, the authors concluded that there is not a general trait of honesty because behavior was fairly consistent across situations (i.e., similar situations produced similar

amounts of dishonesty). In addition, Walter Mischel's (1968) book, Personality and Assessment, further denounced the ability of individual differences to predict behavior. These studies, along with others skeptical of the predictive ability of individual differences, prompted researchers studying deviance to shift towards a situation based perspective (Burton, 1963).

Based on a growing body of evidence indicating that person and situation variables interact to predict behavior, Bowers (1973) presented the interactionalist perspective. Bowers refuted Mischel's argument that situations dominate individual differences by pointing out that research supporting the situation based approach relies on experimental studies in which the experimental treatment is manipulated until desired results are attained. As a result of his literature review, he concluded that person by situation interactions account for more variance in behavior than the main effects of either situations or persons. Even a reanalysis of Hartshorne and May's data indicated that a pure situation approach is not accurate. That is, Burton (1963) conducted a factor analysis of their data and found a general trait of honesty underlying the tests of honesty. Thus, both situations and individual differences must be considered in order to effectively predict behavior because for different types of people in various situations, different kinds of behavior will be expected (Schneider, 1983). In sum, the interactional approach seeks to identify how different types of people react to different situations in a predictable manner.

Unfortunately, many have argued that taking an interactional perspective may be difficult in organizations. Individual differences may not be an accurate predictor of behavior in strong situations, which are characterized by environments that provide clear

and powerful indicators of appropriate behavior (Kenrick & Funder, 1988; Mischel, 1968). Davis-Blake and Pfeffer (1989) maintain that organizations provide strong situations, thus individual differences are unlikely to have strong effects on behavior. However, meta-analyses demonstrate that personality can predict behavior in organizations (Barrick & Mount, 1991; Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Tett, Jackson, & Rothstein, 1991). Further, House, Shane, and Herold (1996) contend that as long as a large amount of unexplained variance in psychological phenomena exist, individual differences should be considered as a potential explanation.

The perspective chosen by researchers to explain behavior has important implications. If workplace deviance is investigated using person based explanations, researchers are likely to advocate selection procedures to prevent those with a "deviant personality" from entering the workforce (Murphy, 1993). Integrity tests, background checks, interviews, and so forth, have been used to identify those with a propensity to engage in deviant behaviors in the workplace. In contrast, situation based explanations of workplace deviance are likely to focus on redesigning the organization (Greenberg & Barling, 1996). For instance, organizations might use surveillance devices or close supervision, create a climate of honesty, or treat employees fairly in an effort to reduce workplace deviance.

Although there is evidence supporting person and situation based explanations of workplace deviance, neither sufficiently explains this type of behavior. Alternatively, many have asserted that the most effective explanations of workplace behavior are interactional ones (Hattrup & Jackson, 1996; House et al., 1996; Schneider, 1983). The interactional approach has been advocated to investigate unethical behaviors (Trevino &

Youngblood, 1990), honesty (Murphy, 1993; Sackett, 1985), theft (Greenberg & Barling, 1996), and organizational retaliatory behavior (Skarlicki et al., 1999). Thus, this study examines the effects of person by situation interactions to determine if they can account for a substantial amount of variance in workplace deviance. First, the relationship between organizational justice and workplace deviance is examined, followed by a discussion of the proposed person by situation interactions.

Organizational Justice as a Predictor of Workplace Deviance

Organizational justice refers to employees' perceptions of fairness in the workplace. Traditionally, three types of organizational justice have been examined: distributive, procedural, and interactional. Recent meta-analyses support distinctions between these types of justice by demonstrating they have differential relationships with various organizational outcomes even though they are often highly correlated (Cohen-Charash & Spector, 2000; Colquitt, Conlon, Wesson, Porter, & Ng, in press). Thus, this study examines the effects of different types of justice on workplace deviance.

Distributive justice refers to perceptions of fairness associated with the distribution of outcomes employees receive. According to equity theory, employees compare what they put into their work (e.g., effort, knowledge) to their resulting outcomes (e.g., pay, recognition; Adams, 1965). If employees' inputs match their outputs, they perceive distributive justice. This form of justice is typically used to predict satisfaction with specific, personal outcomes such as pay satisfaction (Folger & Konovsky, 1989; Konovsky, Folger, & Cropanzano, 1987; McFarlin & Sweeney, 1992).

The second type of justice, procedural, refers to the fairness of the procedures used to make decisions. Procedural justice involves the structural components or rules

that lead to perceptions of fair procedures like voice, consistency, bias suppression, and appeal processes. It is often used to predict satisfaction with or evaluations of organizations such as organizational commitment (Folger & Konovsky, 1989; Konovsky et al., 1987; McFarlin & Sweeney, 1992).

Finally, interactional justice involves the quality of interpersonal treatment employees experience when procedures are enacted (Bies & Moag, 1986). Recent research supports differentiating interactional justice into two constructs: interpersonal and informational justice (Colquitt et al., in press; Colquitt, in press). Interpersonal justice refers to the amount of respect, dignity, and sensitivity individuals are afforded by those implementing procedures or allocating outcomes. Informational justice pertains to the adequacy of explanations or justifications given for decisions or outcomes. Interactional justice has been shown to be one of the strongest determinants of justice (Tyler, 1988) and research indicates that interactional justice is a strong predictor of reactions to and evaluations of supervisors (Bies, 2001).

Many researchers have proposed that workplace deviance is a reaction to inequity in the workplace or employers' violation of obligations owed to employees (e.g., Fisher & Baron, 1982; Greenberg, & Alge, 1998; Greenberg & Scott, 1996; Kemper, 1966; Neuman & Baron, 1998; Sieh, 1987; Tucker, 1989). Indeed, qualitative research indicates that employees engage in workplace deviance because of the inequitable way they feel their employers have treated them. For instance, Zeitlin (1971) interviewed employees discharged for theft and found that many believed the store owed them because they perceived that they were not being adequately paid or their supervisors treated them poorly. Likewise, Mars interviewed hotel employees (1973) and dock

workers (1974) and found that employees stole from their employers because they felt entitled due to employers' exploitation of them. Altheide, Adler, Adler, and Altheide (1978) interviewed employees in many different jobs (e.g., bread truck drivers, custodians, assistant managers, copper workers) and found that many stole from their employers because they believed they worked hard and were not compensated appropriately. Finally, Sieh (1987) interviewed 16 retired garment workers and found that while they rarely responded to perceived inequities with theft or other types of deviance, when they did, they rationalized that the organization owed them.

Quantitative research also demonstrates a link between organizational justice and workplace deviance. First, studies have shown that when organizations are perceived as unfair in general, employees are likely to respond with deviant behaviors. DeMore, Fisher, and Baron (1988) found that university students who felt unfairly treated by university officials and perceived little ability to resolve the inequity, resorted to vandalism. Conversely, when employers exhibited fairness and ethical standards, employees committed less property and production deviance in retail, manufacturing, and hospital industries (Hollinger & Clark, 1982b).

Second, studies indicate that supervisory fairness can influence the occurrence of workplace deviance. Lehman and Simpson (1992) demonstrated the supervisory fairness predicted antagonistic work behaviors such as arguing with coworkers, disobeying supervisors, or spreading rumors. Similarly, Lewicki, Poland, Minton, and Sheppard (1997) found supervisory fairness predicted a form of deviance, lying about productivity levels.

Third, research supports a link between pay inequity and theft. Greenberg (1990) studied the effects of adequate and inadequate explanations of a temporary pay cut on subsequent levels of theft. He found that theft levels were highest when inadequate explanations were given for the pay cut. Thus, pay inequity can lead to theft, but its occurrence can be reduced by adequately explaining the inequity. In an extension of the previous study, Greenberg (1993) designed an experiment examining the effects of amount of information and level of sensitivity in which information is conveyed about a pay inequity. Results indicated that equitably paid participants did not take more pay than promised regardless of the level sensitivity and amount of information provided. However, those that were underpaid took the most when both quantity of information and level of sensitivity were low while taking the least when both were high.

Studies investigating distributive, procedural, and interactional justice also provide evidence of a relationship between organizational justice and workplace deviance. Frone (1998) found that perceptions of distributive injustice predicted on-the-job substance use. Aquino, Lewis, and Bradfield (1999) found interactional justice was negatively related to both interpersonal and organizational deviance while distributive and procedural justice only correlated negatively with interpersonal deviance. Next, in a study by Greenberg and Barling (1999), procedural justice was negatively correlated with aggression against coworkers, subordinates, and supervisors while distributive justice only correlated negatively with aggression against supervisors. However, when regression analyses were conducted, only procedural justice was a significant predictor of aggression against supervisors. Finally, Skarlicki and Folger (1997) found a three way interaction between distributive, procedural, and interactional justice. That is, there was

no relationship between distributive justice and organizational retaliatory behavior (i.e., adverse reactions to perceived injustice by disgruntled employees toward their employer) when procedural or interactional justice was high. Thus, distributive injustice only led to organizational retaliatory behavior when either procedural or interactional justice was low. In conclusion, previous research supports a relationship between organizational justice and workplace deviance. However, the current study extends this line of research by examining the relationship between the recently proposed four types of organizational justice (i.e., distributive, procedural, interpersonal, and informational) and workplace deviance as well as the moderating effects of personality on these relationships.

Moderating Effects of Personality

The popcorn metaphor proposed by Folger and Skarlicki (1998) provides a useful way to think about the interaction between organizational justice and personality. Heat used to pop the popcorn represents situations within organizations while the kernels represent individuals in the workplace. As the heat increases, eventually most kernels pop. However, not all kernels pop and some pop sooner or later than others because of their unique characteristics. Similarly, as situations become more negative in organizations (i.e., unfair treatment), eventually most employees will react, but not all of them do and some respond immediately while others do not react until much later because of their disposition. Thus, the popcorn metaphor illustrates the importance of examining both situations and personality in order to predict the occurrence of workplace deviance.

Although many believe that person by situation interactions are likely to provide better explanations of workplace behaviors than person or situation based explanations

alone, few interactional studies of workplace deviance could be found. Storms and Spector (1987) discovered that employees with an external locus of control were more likely than those with an internal locus of control to respond to frustrating situations in organizations with counterproductive behavior. Likewise, Duffy, Ganster, and Shaw (1998) found a three way interaction between job satisfaction, positive affectivity, and tenure when predicting counterproductivity. That is, high tenure employees who are low on positive affectivity were more likely to respond to low job satisfaction with counterproductive work behaviors. Greenberg and Barling (1999) also tested person (i.e., alcohol use and history of aggression) by situation (i.e., job security, distributive and procedural justice, and employee surveillance) interactions and found three. First, when procedural justice was low, the amount of alcohol consumed was positively related to aggression against coworkers and subordinates. In addition, when procedural justice was low, a history of aggression was related to more aggression against subordinates. Finally, when job security was low, the amount of alcohol consumed and a history of aggression led to more aggression against subordinates.

Two studies are of direct relevance to the current one. First, Frone (1998) investigated the interaction between personality (i.e., rebelliousness, impulsivity, and negative affectivity) and many situation variables including distributive justice. Although main effects were found for personality and distributive justice, the overall interaction between each of the personality traits and all of the situation variables was not significant. Second, Skarlicki et al. (1999) examined the interactions between distributive, procedural, and interactional justice and personality (i.e., negative affectivity and agreeableness) as a potential explanation of organizational retaliatory behavior.

Results indicated a three way interaction between distributive and interactional justice and negative affectivity. When negative affectivity was high, low distributive and interactional justice were associated with organizational retaliatory behavior. Likewise, a three way interaction was found between distributive and interactional justice and agreeableness. When agreeableness was low, low distributive and interactional justice predicted organizational retaliatory behavior. Although these authors examined personality and justice, they advised future research to investigate personality variables that may be more relevant to workplace deviance. Thus, the current study hypothesizes that socialization, impulsivity, and trait anger will moderate the relationship between organizational justice and workplace deviance.

Socialization

Socialization can be defined as the process of internalizing societal and cultural norms (Gough, 1965). This construct is based on Gough's (1948) role taking theory of sociopathy and ranges from asocial to social behaviors. Asocial individuals are deficient in role taking experience and thus, are unable to perceive themselves from the view of others or to evaluate themselves by using generally accepted societal norms (Gough, 1948; 1960). Typically, asocial individuals are low on social maturity, integrity, righteousness, and morality (Gough, 1960) and are often perceived as rebellious, dissatisfied, and defensive (Gough & Peterson, 1952). Further, asocial individuals tend to resist rules and regulations and find it difficult to conform (Gough, 1987). Conversely, individuals on the social end of the continuum are perceived as considerate, dependable, well-balanced, patient, tactful (Gough & Peterson, 1952), and easily able to conform to rules and regulations (Gough, 1987).

Empirical evidence supports a link between socialization and workplace deviance. First, previous studies indicate that socialization is an accurate predictor of delinquency (Megargee, 1972). Further, in a meta-analysis by Collins and Rader (1996; as cited in Collins & Griffin, 1998), socialization was a valid predictor of violations of formal laws (e.g., theft) and violations of societal and organizational norms (e.g., disciplinary problems). Finally, Collins and Schmidt (1993) found that socialization differentiated between those who have committed white collar crime and those who have not. In sum, individuals low on socialization can be expected to violate organizational rules, regulations, and norms. Their disregard of organizational rules and propensity not to conform to societal norms, make workplace deviance a viable response to perceived injustice in the workplace. Conversely, those high on socialization have internalized generally accepted societal norms and tend to conform, which would lead them not to respond to injustice with workplace deviance since it entails going against organizational and societal norms. Therefore, the following hypothesis is offered.

Hypothesis 1: The relationship between organizational justice (i.e., distributive, procedural, interpersonal, and informational) and workplace deviance (i.e., interpersonal and organizational) will be greater for individuals who are lower on socialization than those who score higher.

Impulsivity

Impulsivity refers to the tendency to act with little forethought as to the consequences of one's actions (Eysenck, 1967). Individuals scoring high on impulsivity measures are characterized as rash, reckless, incautious, foolhardy, and likely to freely express their emotions (Jackson, 1984). Those scoring low on measures of impulsivity

are thought to be over controlled and potentially volatile (Megargee, 1972) while moderate scorers are self-disciplined and able to control their emotions. Impulsivity has been implicated in drug use, theft, workplace violence, and employment instability (e.g., Gottfredson & Hirschi, 1993). Likewise, in a study of employed adolescents, Frone (1998) found that impulsivity predicted on-the-job substance use and organizational deviance, but did not predict interpersonal deviance.

Impulsive individuals tend to freely express their emotions, are uninhibited, and act on the spur of the moment. These individuals are likely, not only to express their feelings about injustice in the workplace, but also to be explosive in their emotional reactions to injustice (i.e., engage in workplace deviance) without giving much forethought to the consequences of their actions. In sum, these individuals lack the self-discipline and patience to withhold deviant reactions to injustice in the workplace and to consider the consequences of their emotional reactions.

Hypothesis 2: The relationship between organizational justice (i.e., distributive, procedural, interpersonal, and informational) and workplace deviance (i.e., interpersonal and organizational) will be greater for individuals who are higher on impulsivity than those who score lower.

Trait Anger

Trait anger involves a tendency to perceive many situations or events as annoying or frustrating (Spielberger, 1996). Individuals high on trait anger often experience angry feelings and frustration, perceive they are not treated fairly by others, and may respond to perceptions of unfair treatment with anger. Research indicates that individuals high on trait anger are more likely to experience frequent, even daily, anger across many

situations and are likely to respond to provocative situations with physical and verbal antagonism and poor coping (Deffenbacher, 1992). Fox and Spector (1999) investigated trait anger and its relationship to workplace deviance. These authors found that trait anger was strongly related to interpersonal and organizational deviance and it was more strongly correlated with workplace deviance than situational constraints, locus of control, anxiety, likelihood of being punished if caught engaging in deviance, job satisfaction, and frustration. Thus, individuals high on trait anger are likely to respond to insensitive and unfair treatment within organizations with workplace deviance.

Hypothesis 3: The relationship between organizational justice (i.e., distributive, procedural, interpersonal, and informational) and workplace deviance (i.e., interpersonal and organizational) will be greater for individuals who are higher on trait anger than those who score lower.

Method

Sample

Data were collected from 272 undergraduate business and psychology students who either received extra credit or course credit for participating. Requirements for participation were participants had to work at least part-time (i.e., 20 hours per week) and be employed by their current employer for at least six months. A total of 211 matching surveys were returned, yielding a response rate of about 78%. However, six surveys were excluded because at least one scale was not completed and an additional 54 surveys were excluded because participants had not worked for their present employer for at least six months. Thus, analyses were based on a sample of 151.

Of the 151 participants in the final sample, 70 were male and 81 were female. Participant ages ranged from 18 to 44 with the average age equaling 22. On average, participants had been employed by their current organization for two years and most worked part-time (75%) and for small organizations (66%), which was defined as companies having less than 100 employees. Participants worked in a variety of jobs with most working in management (23%), customer service (15%), restaurant or food service (12%), clerical (11%), and sales (9%).

Procedures

Participants completed a survey describing their perceptions of justice in their organization, their involvement in workplace deviance, and their demographic characteristics. Then, participants were asked to give a survey containing personality

measures to someone who knows them well and instructed not to complete the survey themselves. Individuals completing the personality measures returned the survey in a postage paid envelope to the researcher's university address. The relationship between the person filling out the personality measures and the participant (i.e., spouse, significant other, friend, relative, acquaintance) as well as length of the relationship and frequency of interaction were assessed. Results indicated that individuals completing the personality measures were mostly friends (60%) followed by significant others, relatives, and spouses (19%, 12%, 8%, respectively). On average, respondents knew the participant about six years and the majority interacted on a daily (75%) or weekly basis (20%). Self-reports of personality were not used to avoid common method bias and because research indicates a high level of agreement between spouse (e.g., McCrae, 1982; Mutén, 1991) and peer (e.g., McCrae & Costa, 1987) ratings of personality and self-reports. Measures in each survey were counterbalanced to prevent order effects. To ensure anonymity, surveys were coded with matching numbers, and no identifying information was requested. Participants were debriefed after they completed the survey.

Measures

The appendix lists the organizational justice and workplace deviance items, and the personality items publishers gave permission to reprint.

Organizational justice. Organizational justice was measured using a multidimensional scale developed by Colquitt (in press). Distributive justice consists of a four item scale assessing the degree that employees perceive they are fairly rewarded when considering their effort and level of performance. The procedural justice scale uses Leventhal's (1980) six procedural rules to evaluate employees' fairness perceptions of

procedures used by organizations to make decisions. That is, the seven item scale assesses the presence of voice, consistency, accuracy, appeal processes, bias, and ethical treatment to determine if procedures are fair. Interactional justice is divided into interpersonal and informational justice. The interpersonal justice scale has four items that evaluate the dignity and respect with which supervisors treat employees when implementing procedures. Finally, informational justice refers to the thoroughness of explanations or justifications provided for procedures and is measured with five items. The above scales were created using seminal research in the justice literature to ensure content validity and subsequent research confirms the four factor structure and provides evidence of their predictive validity (Colquitt, in press). In the current study, distributive, procedural, interactional, and informational justice had coefficient alphas of .95, .85, .91, .90, respectively.

Socialization. Socialization was measured using the socialization subscale from the California Psychological Inventory (Gough & Peterson, 1952), which contains 46 items. This scale was originally developed to measure delinquency, however, later research indicated it measured not only delinquency, but general socialization (Megargee, 1972). The items evaluate sensitivity in interpersonal interactions, resentment toward family members, alienation, confidence in self and others, school adjustment, and rebelliousness (Gough & Peterson, 1952). This measure places individuals on a continuum from asocial to social behavior and predicts the extent to which they will violate societal values and norms. Individuals scoring high on this scale are typically accepting of rules and regulations and find it easy to conform while low scorers resist rules and regulations and find it difficult to conform.

One item was dropped from the scale due to a large amount of missing data on the item (i.e., 9%). In addition, items were coded so that 1 indicated an asocial response while 0 indicated a socialized response. Therefore, high scores on this measure represent those low on socialization and will be referred to as asocial personality throughout the rest of this study. The scale typically has a coefficient alpha of .71 (Gough, 1987) and much research has contributed evidence of the scale's concurrent, predictive, and construct validity (Megargee, 1972). In the current study, the scale had a coefficient alpha of .75.

Impulsivity. Impulsivity was measured with the impulsivity subscale of the Personality Research Form-E (PRF), which was developed by Douglas Jackson in 1967. The PRF is a measure of normal personality based on Murray's theory of personality and needs (Murray, 1938). The impulsivity subscale has 16 items and assesses the tendency of individuals to act without thinking and to speak freely of their feelings and wishes. Individuals high on this measure act on the spur of the moment, readily vent feelings, may be volatile in emotional expression, and are often described as hasty, spontaneous, uninhibited, reckless, impatient, and excitable (Jackson, 1984). The scale typically has a test-retest correlation of .81 and a coefficient alpha of .85 (Jackson, 1984). In this study, the impulsivity scale had a coefficient alpha of .79.

Trait anger. Trait anger was measured using the Trait Anger scale from the State-Trait Anger Expression Inventory developed by Spielberger (1979). The Trait Anger scale consists of 10 items, which measure the tendency of individuals to experience anger and frustration and to perceive unfair treatment by others (Spielberger, 1996). Research

indicates the scale has a coefficient alpha ranging from .80 to .84 (Spielberger, 1996). Trait anger had a coefficient alpha of .69 in the current study.

Workplace deviance. Workplace deviance was measured using a scale developed by Bennett and Robinson (2000) that asks employees the extent to which they engage in deviant work behaviors (i.e., 0 = Not applicable, 1 = Never, 2 = Once a year, 3 = Twice a year, 4 = Several times a year, 5 = Monthly, 6 = Weekly, 7 = Daily). Self-reports were used because supervisors and coworkers are unlikely to have knowledge of these behaviors and because research has shown self-reports are accurate measures of behavior (Spector, 1992). This scale measures many forms of deviance (e.g., production, property, political, and interpersonal aggression) and differentiates between deviance directed at organizations and individuals. The interpersonal deviance scale includes seven items while the organizational deviance scale contains 12 items. This measure was designed to be generalizable across many organizational settings. Bennett and Robinson (2000) conducted confirmatory factor analyses and found good fit for the two factor model and obtained reliabilities of .78 for the interpersonal deviance scale and .81 for the organizational deviance scale. The authors also provided preliminary evidence of the scales' convergent and discriminant validity. In this study, interpersonal deviance had a coefficient alpha of .85 while organizational deviance was .78.

Analytic Strategy

First, confirmatory factor analyses were conducted to evaluate the factor structure of the organizational justice and workplace deviance measures. For the justice measures, four, three (i.e., interpersonal and informational justice were combined to form interactional justice), two (i.e., procedural, interpersonal, and informational justice were

combined into a single factor), and single factor models were tested to determine whether the four factor model proposed by Colquitt (in press) provided the best fit. For the workplace deviance scale, a two factor model was compared to a single factor model to confirm Bennett and Robinson's (2000) finding of a superior fit of a two factor model. Model fit was evaluated with the comparative fit index (CFI) and root mean square error of approximation (RMSEA). CFI assesses the relative improvement in fit of the hypothesized model compared to the null model in which all observed variables are assumed to be uncorrelated (Bentler, 1990). Values of .95 or greater are believed to demonstrate good fit (Hu & Bentler, 1999). RMSEA evaluates how well the hypothesized model replicates the sample data by comparing the model to a saturated model that accurately reproduces the sample covariance matrix (Hu & Bentler, 1999). For RMSEA, values less than .06 indicate acceptable fit (Hu & Bentler, 1999). Point estimates as well as 90% confidence intervals for RMSEA are reported.

Next, hierarchical multiple regression analyses were conducted to test the interactions among the personality and justice variables (Aiken & West, 1991). First, the predictors were centered before forming interaction terms, that is, they were put into deviation score form to reduce multicollinearity that is typically associated with regression equations containing interaction terms (Marquardt, 1980). The significance of interactions was determined after controlling for the main effects of the independent variables. For each equation, the justice variable was entered first, followed by the personality variable to determine if it contributed over and above the effects of justice, and then, the interaction between the justice and personality variable was entered. For each personality variable, separate equations were computed for the four types of justice

for both interpersonal and organizational deviance. Changes in R^2 were evaluated to assess the predictive power of the interactions over the main effects.

Interactions were probed and plotted using the method recommended by Aiken and West (1991). First, the regression equation was restructured to represent the regression of workplace deviance on organizational justice at different levels of personality. Next, low, medium, and high values of personality were chosen (Cohen & Cohen, 1983) and entered into the transformed regression equation in order to calculate three regression equations. Low, medium, and high values of personality were computed as one standard deviation below the mean, the mean, and one standard deviation above the mean, respectively. Then, the simple slopes of the equations were evaluated to determine if they differed from zero. Finally, the equations were graphed at low, medium, and high levels of organizational justice in order to determine the nature of the interaction.

Results

Confirmatory factor analysis (CFA) was performed using AMOS 4 (Arbuckle, 1999) to validate the four factor model of organizational justice and the two factor model of workplace deviance. Table 1 reports the fit indices for the factor models of organizational justice and workplace deviance. CFA demonstrated only a moderate fit for the four factor model of justice (CFI = .92, RMSEA = .09), but this model fit significantly better than the three, two, and single factor models. This indicates that although the four types of justice are highly correlated, they represent unique constructs. For workplace deviance, CFA indicated an adequate fit for the two factor model (CFI = .97, RMSEA = .07). Thus, results suggest that interpersonal and organizational deviance are distinct constructs although the two are correlated.

Descriptive statistics, reliabilities, and the correlation matrix of all the variables are shown in Table 2. As expected, distributive, interpersonal, and informational justice were negatively related to interpersonal ($r = -.17$, $p < .05$; $r = -.23$, $p < .01$; $r = -.18$, $p < .05$) and organizational deviance ($r = -.19$, $p < .05$; $r = -.20$, $p < .01$; $r = -.18$, $p < .05$). However, procedural justice only correlated negatively with organizational deviance ($r = -.16$, $p < .05$). In addition, asocial personality and impulsivity were positively related to interpersonal ($r = .18$, $p < .05$; $r = .26$, $p < .01$) and organizational deviance ($r = .31$, $p < .001$; $r = .37$, $p < .001$). Trait anger was not related to either type of workplace deviance.

To test the hypotheses, hierarchical regression analyses were conducted and the results for the interactions between the types of justice and asocial personality, impulsivity, and trait anger are shown in Tables 3, 4, and 5. Hypothesis 1 predicted that the relationship between organizational justice and workplace deviance would be greater for individuals who score lower on socialization. Although, asocial personality predicted workplace deviance, especially organizational deviance, beyond the effects of each type of organizational justice, only one interaction was statistically significant (see Table 3). The interaction between distributive justice and asocial personality was significant for interpersonal deviance ($\beta = -.14$, $\Delta R^2 = .02$, $p < .05$). Results are plotted in Figure 1 and the significance of the simple slopes of the plotted regression equations are reported in Table 6. No relationship existed between distributive justice and interpersonal deviance when asocial personality was low. However, at higher levels of asocial personality, distributive justice was related to interpersonal deviance. That is, when employees were higher on asocial personality, low distributive justice was associated with high interpersonal deviance while high distributive justice was associated with low interpersonal deviance. Although this interaction was statistically significant, it is important to note that the interaction only contributed an additional two percent in variance explained beyond that explained by the main effects.

Hypothesis 2 predicted that the relationship between organizational justice and workplace deviance would be greater for individuals who score higher on impulsivity. Again, impulsivity contributed unique variance over and above that offered by organizational justice in the prediction of workplace deviance, especially for organizational deviance (see Table 4). Further, results show statistically significant

interactions between informational justice and impulsivity for both interpersonal (β = -.13, ΔR^2 = .02, $p < .05$) and organizational deviance (β = -.10, ΔR^2 = .01, $p < .10$) as well as a significant interaction between interpersonal justice and impulsivity for interpersonal deviance (β = -.17, ΔR^2 = .02, $p < .05$). Interactions were probed and are plotted in Figures 2, 3, and 4. First, only at higher levels of impulsivity was interpersonal justice related to interpersonal deviance. When employees were high on impulsivity, perceptions of low interpersonal justice were related to higher frequencies of interpersonal deviance and perceptions of high levels of interpersonal justice were related to low frequencies of interpersonal deviance. A similar interaction was found between informational justice and impulsivity for both interpersonal and organizational deviance. Employees higher on impulsivity were more likely to report higher levels of participation in interpersonal and organizational deviance when informational justice was low than when it was high. In sum, the relationship between organizational justice and workplace deviance was stronger for employees who were higher on impulsivity. However, the magnitude of these interactions was small. That is, the interactions contributed a small amount of variance beyond that explained by the main effects (i.e., one to two percent).

Hypothesis 3 predicted that the relationship between organizational justice and workplace deviance would be greater for individuals who are higher on trait anger. Contrary to prediction, no significant interactions were detected between justice and trait anger. In fact, trait anger did not contribute any unique variance over and above organizational justice in predicting workplace deviance. Thus, Hypothesis 3 was not supported.

Discussion

Results of this study provide some support for taking an interactional perspective in explaining workplace deviance. Previous research has focused on the relationship between organizational justice and workplace deviance. These studies, however, are neglecting the possibility of person based explanations qualifying the nature of situation based explanations. Models of workplace deviance containing only situation or person based predictors risk underspecificiation and thus, including both situation and person based explanations results in a more complete prediction model of workplace deviance.

As shown in this study, organizational justice explained only a portion of the variance in workplace deviance (i.e., one to five percent) and the personality measures, with the exception of trait anger, accounted for unique variance in workplace deviance beyond that explained only by the justice variables. Impulsivity contributed an additional six percent of variance explained in interpersonal deviance over that contributed by organizational justice. More importantly, impulsivity added between 12 and 14 percent of additional variance explained in organizational deviance over that added by organizational justice. Asocial personality also contributed unique variance to workplace deviance, although it was not as substantial as impulsivity. For interpersonal deviance, asocial personality explained two to three percent of variance over that contributed by organizational justice while it explained an additional seven to nine percent of variance for organizational deviance. In conclusion, including personality factors in addition to

organizational justice enhanced the prediction of workplace deviance, especially organizational deviance.

As previously mentioned, some support was found for the interactional approach, especially for organizational justice and impulsivity. As predicted in Hypothesis 2, the relationship between organizational justice and workplace deviance was stronger for employees who were higher on impulsivity. Impulsive employees adjust their involvement in workplace deviance depending on their perceptions of organizational justice. For instance, interpersonal deviance was higher when impulsive employees perceived low interpersonal or informational justice. In contrast, interpersonal deviance was lower when impulsive employees perceived high interpersonal and informational justice. A similar interaction was found for impulsivity and informational justice in predicting organizational deviance. Organizational deviance was higher when impulsive employees perceived low informational justice and lower when informational justice was perceived as high. In sum, when impulsivity is high, organizational justice is related to workplace deviance.

Hypothesis 1 predicted that the relationship between organizational justice and socialization would be greater for those low on socialization (i.e., high on asocial personality). Unfortunately, only one of the interactions between justice and asocial personality was significant. Employees who were high on asocial personality had higher frequencies of interpersonal deviance when they perceived low distributive justice and lower frequencies of interpersonal deviance when they perceived high distributive justice. Thus, when employees were high on asocial personality, organizational justice was related to workplace deviance. While Hypothesis 1 received minimal support,

Hypothesis 3, which predicted that the relationship between organizational justice and trait anger would be greater for those higher on trait anger, was not supported. In closing, it should be emphasized that although these interactions were statistically significant, they only contributed a small amount of variance beyond that explained by the main effects.

Theoretical Implications

This study contributed to the literature on workplace deviance by adopting an interactional perspective. By including personality in addition to organizational justice, more variance was explained in both interpersonal and organizational deviance. Although many researchers have advocated an interactional approach to studying deviant behaviors, few studies were found that have done so. By exploring both situation and person based explanations of workplace deviance, we may better be able to predict and understand its occurrence.

In addition to using an interactional approach, this study tested the ability of a four factor model of organizational justice to predict workplace deviance. Confirmatory factor analyses support the superiority of the four factor model presented by Colquitt (in press), which divides interactional justice into interpersonal and informational justice. Thus, the fairness of outcomes employees receive, procedures used to make decisions and allocate outcomes, respect and dignity given to employees by decision makers, and adequacy of justifications for decisions were all evaluated to determine their ability to predict workplace deviance. Differentiating between the types of justice assists researchers in identifying which types influence the occurrence of workplace deviance.

In the current study, interpersonal justice accounted for the most variance in workplace deviance while procedural justice accounted for the least.

Further, a range of deviant work behaviors was assessed. Previous research on workplace deviance has traditionally emphasized specific behaviors like theft. This study used a broad measure of workplace deviance, which includes items assessing production, property, and political deviance as well as interpersonal aggression. These items reflect a variety of behaviors directed at organizations and individuals within organizations that are both mild and serious in their consequences. Examining an array of deviant work behaviors and including less extreme forms of workplace deviance helps overcome the low base rate problem typically associated with measures of deviant work behaviors (Hulin & Rousseau, 1980).

Finally, the current study addressed the issue of common method bias, which usually plagues survey research. Although participants provided information on their perceptions of organizational justice within their organizations and the frequency to which they engage in workplace deviance, personality information was gathered from an individual who knows the participant well. This helped reduce inflation of the relationships among the research variables. Ideally, information about workplace deviance would have been collected from another source, like a supervisor or coworker, to further reduce common method bias. However, these other sources, especially supervisors, are unlikely to have knowledge of the occurrence of workplace deviance because these behaviors are not likely to be condoned, and thus employees are likely to be discreet when committing these acts.

While this research design helped minimize over inflation of the relationships among the variables, it may have also reduced the effect sizes found, especially in comparison to research using self-report methodology (e.g., Aquino et al., 1998; Duffy, et al., 1998; Fox & Spector, 1999; Greenberg & Barling, 1999; Storms & Spector, 1987). Thus, this study may provide a more realistic view of the relationships between organizational justice, personality, and workplace deviance. Even though effect sizes for the interactions were small (i.e., one to two percent of variance accounted for beyond that explained by the main effects), utility analysis demonstrates the value of reducing workplace deviance by even a small amount. For instance, theft is estimated to cost organizations between $6 and $200 billion per year (Murphy, 1993). Assume that theft costs organizations six billion annually, and that by considering justice perceptions and employee personality, theft could be reduced by two percent, organizations would save $120 million per year. In sum, the effect sizes found in this study may appear trivial, but they can have a real impact on organizations' bottom line.

Managerial Implications

As stated earlier, workplace deviance can have substantial financial and psychological consequences for organizations and their employees. Therefore, understanding workplace deviance is essential for organizations and managers and this study has several implications for them. First, not every employee reacts the same way to injustice in the workplace. Organizations wanting to reduce the occurrence of workplace deviance must consider the personality of employees in addition to how just employees perceive their organizations to be. Organizations can prevent applicants from entering their workforce that have a tendency to react, especially to injustice, with workplace

deviance. This study indicated that the personality variable with the strongest relationship to workplace deviance is impulsivity. Organizations could integrate measures of impulsivity or integrity tests since they usually contain items assessing impulsivity, into their selection system. This would help identify those likely to engage in workplace deviance if hired.

For organizations not wanting to use personality testing, or in addition to testing, changes could be made within organizations to increase justice perceptions. This study indicated that individuals likely to engage in workplace deviance (i.e., impulsive and asocial employees) did not do so when they perceived high distributive, interpersonal, or informational justice. Although, organizations may not have control over the outcomes employees receive due to budgetary constraints, competition, and so forth, organizations can regulate the amount of interpersonal and informational justice offered to employees. That is, managers can be trained to treat employees with sensitivity, dignity, and respect as well as to provide adequate explanations for decisions made. To ensure that this interpersonal training transfers to the work setting, organizations can evaluate and reward managers for exhibiting these behaviors effectively.

Limitations

Although the current study offers many contributions to the literature, its limitations should be acknowledged. First, the research design was cross sectional and thus, causal attributions cannot be made about the variables studied. Future research should implement longitudinal designs in order to determine the causal sequence of the variables examined.

Second, characteristics of the sample may have limited the findings because most participants worked only part-time and were young (i.e., average age was 22). Therefore, this research may not be generalizable to older, full-time employees. However, this may be just the type of employee workplace deviance research should be targeting. Previous research has demonstrated that younger employees (e.g., Hollinger, 1986; Hollinger, Slora, & Terris, 1992; Lewicki et al., 1997) with little tenure (e.g., Hollinger, 1986; Hollinger et al., 1992) are more likely to commit workplace deviance. Therefore, research should focus on understanding and predicting workplace deviance in this employee segment because it may be the demographic group with the highest frequency of participation.

Next, the lack of support for Hypothesis 3 (i.e., the relationship between organizational justice and workplace deviance will be greater for individuals who are higher on trait anger) is not surprising. The reliability of the trait anger measure was low ($\alpha = .69$). When a large amount of measurement error exists for an individual predictor, any resulting interaction term will also have low reliability (Aiken & West, 1991). Low reliability in the interaction term between trait anger and justice, in turn, leads to larger standard errors in the interaction term as well as lower power to detect a true interaction, lower effect sizes, and less variance accounted for. Given the coefficient alpha for trait anger, the estimated reliability for the interaction terms between trait anger and justice is .50. Thus, a larger sample size is needed to detect an interaction between trait anger and justice if one does indeed exist. In sum, the low reliability of the trait anger measure may explain why the interactions between trait anger and justice were not significant. In addition, the lower reliabilities of the socialization ($\alpha = .75$) and impulsivity ($\alpha = .79$)

measures may also explain why so few interactions were found for these personality factors. Future research should consider using more reliable measures of these personality constructs, especially trait anger.

Ceiling effects may have also contributed to the lack of support for Hypothesis 3 as well as the small number of interactions detected for the other personality variables. The average score for trait anger was 3.66 out of a possible 10 points, indicating that most employees responding to this survey were relatively low on trait anger. Likewise, most participants were relatively low on impulsivity and asocial personality. Finally, the low rate of occurrence of interpersonal and organizational deviance (i.e., on average, employees engaged in workplace deviance once per year) may have also limited the findings of this study despite steps taken in measurement to overcome the low base rate problem typically associated with this phenomenon.

Finally, a lack of power may explain failure to detect interaction effects. Using the method outlined by Murphy and Myors (1998), a priori power analysis indicated that a sample size of 213 was needed to achieve a power of .80 for testing the null hypothesis using an alpha value of .05 and assuming small to moderate effect sizes (i.e., five percent of the variance in workplace deviance will be accounted for). Thus, given a larger sample size, more of the predicted interactions may have been statistically significant.

Despite these limitations, the interactional approach for predicting workplace deviance received some support. Situation and person based predictors along with some of their interactions accounted for a noticeable portion of the variance in workplace deviance. However, in the current study, the interactional approach was more applicable to interpersonal deviance. Future research should evaluate the differential effectiveness

of using an interactional model on interpersonal and organizational deviance to determine if different approaches explain these two types of workplace deviance. Further, research adopting an interactional approach should explore different situation and person predictors. Researchers should consider examining personality factors other than those included in this study, such as the Big 5, to determine if there are better personality predictors of workplace deviance. Likewise, situation variables other than organizational justice should be considered such group norms toward workplace deviance. In conclusion, future research should strive toward identifying both situation and person based explanations of workplace deviance so that we will be able to better understand, predict, and ultimately, control the occurrence of workplace deviance.

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Appendix

Distributive Justice

1. My outcomes (e.g., pay, recognition, promotions) reflect the effort I have put into my work.
2. My outcomes are appropriate for the work I have completed.
3. My outcomes reflect what I have contributed to the organization.
4. My outcomes are justified, given my performance.

Procedural Justice

1. I am able to express my views and feelings during procedures used to make decisions in my organization.
2. I have influence over outcomes arrived at by procedures used to make decisions in my organization.
3. Procedures used to make decisions in my organization are applied consistently.
4. Procedures used to make decisions in my organization are free of bias.
5. Procedures used to make decisions in my organization are based on accurate information.
6. I am able to appeal outcomes arrived at by procedures used to make decisions in my organization.
7. Procedures used to make decisions in my organization uphold ethical and moral standards.

Interpersonal Justice

1. My supervisor treats me in a polite manner.
2. My supervisor treats me with dignity.
3. My supervisor treats me with respect.
4. My supervisor refrains from improper remarks or comments.

Informational Justice

1. My supervisor is candid in his/her communications with me.
2. My supervisor explains procedures thoroughly.
3. My supervisor's explanations regarding procedures are reasonable.
4. My supervisor communicates details in a timely manner.
5. My supervisor seems to tailor his/her communications to my specific needs.

Impulsivity

1. Often he/she stops in the middle of one activity in order to start something else.
2. He/she is careful to consider all sides of an issue before taking action.
3. He/she often says the first thing that comes into his/her head.
4. He/she is pretty cautious.
5. When he/she goes to the store, he/she often comes home with things he/she had not intended to buy.
6. Rarely, if ever, does he/she do anything reckless.
7. Many of his/her actions seem to be hasty.
8. Emotion seldom causes him/her to act without thinking.
9. He/she has often broken things because of carelessness.
10. He/she has a reserved and cautious attitude toward life.
11. Most people feel that he/she acts impulsively.

12. His/her thinking is usually careful and purposeful.

13. Sometimes he/she gets several projects started at once because he/she doesn't think ahead.

14. He/she is not one of those people who blurts out things without thinking.

15. He/she finds that thinking things over very carefully often destroys half the fun of doing them.

16. He/she generally relies on careful reasoning in making up his/her mind.

Trait Anger

1. He/she has a fiery temper.

2. He/she is quick tempered.

3. He/she is a hot-headed person.

4. He/she flies off the handle.

5. When he/she gets mad, he/she says nasty things.

6. When he/she gets frustrated, he/she feels like hitting someone.

7. He/she feels infuriated when he/she does a good job and gets a poor evaluation.

8. It makes him/her furious when he/she is criticized in front of others.

9. He/she feels annoyed when he/she is not given recognition for doing good work.

10. He/she gets angry when he/she is slowed down by others' mistakes.

Interpersonal Deviance

1. Made fun of someone at work.

2. Said something hurtful to someone at work.

3. Made an ethnic, religious or racial remark at work.

4. Cursed at someone at work.

5. Played a mean prank on someone at work.

6. Acted rudely toward or argued with someone at work.

7. Publicly embarrassed someone at work.

Organizational Deviance

1. Taken property from work without permission.

2. Spent too much time fantasizing or daydreaming instead of working.

3. Falsified a receipt to get reimbursed.

4. Taken an additional or longer break than is acceptable at your workplace.

5. Come in late to work without permission.

6. Littered your work environment.

7. Neglected to follow your boss's instructions.

8. Intentionally worked slower than you could have worked.

9. Discussed confidential company information with an unauthorized person.

10. Used an illegal drug or consumed alcohol on the job.

11. Put little effort into your work.

12. Dragged out work in order to get overtime.

Table 1
Fit Indices for the Models of Organizational Justice and Workplace Deviance

Model	df	CFI	RMSEA	90% CI
Justice				
Single factor	170	.57	.20	(.19, .21)
2-factor	169	.78	.15	(.14, .16)
3-factor	167	.84	.13	(.11, .14)
4-factor	164	.92	.09	(.08, .10)
Deviance				
Single factor	152	.94	.10	(.09, .11)
2-factor	151	.97	.07	(.06, .09)

Note. N = 151. CFI = comparative fit index; RMSEA = root mean square error of approximation; 90% CI = 90% confidence interval for RMSEA.

Table 2
Descriptive Statistics, Reliabilities, and Correlations Among Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Distributive Justice	5.17	1.59	(.95)								
2. Procedural Justice	4.79	1.23	.50***	(.85)							
3. Interpersonal Justice	5.90	1.33	.36***	.54***	(.91)						
4. Informational Justice	5.18	1.47	.41***	.64***	.75***	(.90)					
5. Asocial Personality	15.75	5.59	-.17*	-.25**	-.22**	-.13†	(.75)				
6. Impulsivity	5.17	3.58	-.04	-.10	-.12†	-.11†	.39***	(.79)			
7. Trait Anger	3.66	2.18	-.09	-.17*	-.14*	-.16*	.31***	.15*	(.69)		
8. Interpersonal Deviance	2.26	1.20	-.17*	-.08	-.23**	-.18*	.18*	.26**	-.03	(.85)	
9. Organizational Deviance	2.47	.87	-.19*	-.16*	-.20**	-.18*	.31***	.37***	.09	.50***	(.78)

Note. N = 151. Scale reliabilities are in parentheses. †p < .10. *p < .05. **p < .01. ***p < .001.

Table 3

Hierarchical Regression Analysis for the Interaction Between Organizational Justice and Asocial Personality

Variable	Interpersonal Deviance							Organizational Deviance						
	B	SE B	β	R^2	F[a]	ΔR^2	F[b]	B	SE B	β	R^2	F[a]	ΔR^2	F[b]
Step 1				.03	4.25*						.03	5.31*		
Distributive justice (DJ)	-.13	.06	-.17*					-.10	.04	-.19*				
Step 2				.05	3.98*	.02	3.63*				.11	9.57***	.08	3.38***
Asocial personality (ASOC)	.03	.02	.16*					.04	.01	.29***				
Step 3				.07	3.75**	.02	3.19*				.12	6.44***	.01	.28
DJ × ASOC	-.02	.01	-.14*					.00	.01	-.04				
Step 1				.01	1.04						.03	3.93*		
Procedural justice (PJ)	-.08	.08	.08					-.11	.06	-.16*				
Step 2				.03	2.56*	.02	4.06*				.10	8.54***	.07	12.83***
Asocial personality (ASOC)	.04	.02	.17*					.05	.01	.29***				
Step 3				.03	1.73†	.00	.11				.10	5.66**	.00	.03
PJ × ASOC	.00	.01	-.03					.00	.01	.02				
Step 1				.05	8.24**						.04	6.04**		
Interpersonal justice (INT)	-.21	.07	-.23**					-.13	.05	-.20**				
Step 2				.07	5.55**	.02	2.77*				.11	9.52***	.07	12.53***
Asocial personality (ASOC)	.03	.02	.14*					.04	.01	.28**				
Step 3				.08	3.97**	.01	.80				.12	6.54***	.01	.63
INT × ASOC	-.01	.01	-.08					.01	.01	.07				
Step 1				.03	4.95*						.03	4.77**		
Informational justice (INF)	-.15	.07	-.18*					-.11	.05	-.18*				
Step 2				.06	4.47**	.03	3.89**				.12	9.65***	.09	14.12***
Asocial personality (ASOC)	.03	.02	.16*					.05	.01	.29***				
Step 3				.07	3.46**	.01	1.41				.12	6.42***	.00	.07
INF × ASOC	-.01	.01	-.10					.00	.01	.02				

Note. N = 151. [a]F value for R^2. [b]F value for ΔR^2. †p < .10. *p < .05. **p < .01. ***p < .001.

Table 4

Hierarchical Regression Analysis for the Interaction Between Organizational Justice and Impulsivity

Variable	Interpersonal Deviance							Organizational Deviance						
	B	SE B	β	R^2	F[a]	ΔR^2	F[b]	B	SE B	β	R^2	F[a]	ΔR^2	F[b]
Step 1				.03	4.25*						.03	5.31*		
Distributive justice (DJ)	-.13	.06	-.17*					-.10	.04	-.19*				
Step 2				.09	7.31***	.06	10.11**				.17	14.66***	.14	23.21***
Impulsivity (IMP)	.08	.03	.25**					.09	.02	.36***				
Step 3				.09	4.85**	.00	.02				.17	9.80***	.00	.25
DJ × IMP	.00	.02	-.04					-.01	.01	-.13				
Step 1				.01	1.04						.03	3.93*		
Procedural justice (PJ)	-.08	.08	-.08					-.11	.06	-.16*				
Step 2				.07	5.43**	.06	9.76**				.15	13.14***	.12	21.80***
Impulsivity (IMP)	.08	.03	.25**					.09	.02	.36***				
Step 3				.07	3.60**	.00	.02				.15	8.77***	.00	.17
PJ × IMP	.00	.02	.01					-.01	.02	-.03				
Step 1				.05	8.24**						.04	6.04**		
Interpersonal justice (INT)	-.21	.07	-.23**					-.13	.05	-.20**				
Step 2				.11	8.71***	.06	8.74**				.16	14.06***	.12	21.27***
Impulsivity (IMP)	.08	.03	.23**					.09	.02	.35***				
Step 3				.13	7.61***	.02	4.97*				.17	9.87***	.01	.17
INT × IMP	-.04	.02	.17*					-.02	.01	-.09				
Step 1				.03	4.95*						.03	4.77*		
Informational justice (INF)	-.15	.07	.18*					-.11	.05	-.18*				
Step 2				.09	7.17***	.06	9.11**				.15	13.49***	.12	21.56***
Impulsivity (IMP)	.08	.03	.24**					.09	.02	.35***				
Step 3				.11	5.73***	.02	2.69*				.16	9.61***	.01	1.71†
INF × IMP	-.03	.02	.13*					.02	.01	-.10†				

Note. N = 151. [a]F value for R^2. [b]F value for ΔR^2. †p < .10. *p < .05. **p < .01. ***p < .001.

Table 5

Hierarchical Regression Analysis for the Interaction Between Organizational Justice and Trait Anger

Variable	Interpersonal Deviance							Organizational Deviance						
	B	SE B	β	R^2	F^a	ΔR^2	F^b	B	SE B	β	R^2	F^a	ΔR^2	F^b
Step 1				.03	4.25*						.03	5.31*		
Distributive justice (DJ)	-.13	.06	-.17*					-.10	.04	-.19*				
Step 2				.03	2.30*	.00	.37				.04	3.03*	.01	.76
Trait Anger (ANG)	-.03	.05	-.05					.03	.03	.07				
Step 3				.04	1.97†	.01	1.32				.04	2.26*	.00	.74
DJ × ANG	.03	.03	.09					.02	.02	.07				
Step 1				.01	1.04						.03	3.93*		
Procedural justice (PJ)	-.08	.08	-.08					-.11	.06	-.16*				
Step 2				.01	.70	.00	.35				.03	2.24†	.00	.56
Trait Anger (ANG)	-.03	.05	-.05					.02	.03	.06				
Step 3				.01	.46	.00	.01				.03	1.65†	.00	.49
PJ × ANG	.00	.03	-.01					-.02	.02	-.06				
Step 1				.05	8.24**						.04	6.04**		
Interpersonal justice (INT)	-.21	.07	-.23**					-.13	.05	-.20**				
Step 2				.06	4.47**	.01	.71				.04	3.29*	.00	.55
Trait Anger (ANG)	-.04	.04	-.07					.02	.03	.06				
Step 3				.06	2.96*	.00	.02				.04	2.26*	.00	.23
INT × ANG	.00	.03	-.01					-.01	.02	-.04				
Step 1				.03	4.95*						.03	4.77*		
Informational justice (INF)	-.15	.07	-.18*					-.11	.05	-.18*				
Step 2				.04	2.78*	.01	.62				.04	2.65*	.01	.54
Trait Anger (ANG)	-.04	.05	-.07					.02	.03	.06				
Step 3				.04	1.95†	.00	.30				.04	1.82†	.00	.19
INF × ANG	-.02	.03	-.05					-.01	.02	-.04				

Note. N = 151. [a]F value for R^2. [b]F value for ΔR^2. †p < .10. *p < .05. **p < .01.

Table 6

Tests of Simple Slopes of Regression for Interactions between Justice and Personality

Distributive Justice × Asocial Personality in Predicting Interpersonal Deviance			
Level of Asocial Personality	Simple Slope	SE	t(147)
Low	.02	.09	.24
Medium	-.09	.06	-1.39†
High	-.20	.08	-2.48**
Interpersonal Justice × Impulsivity in Predicting Interpersonal Deviance			
Level of Impulsivity	Simple Slope	SE	t(147)
Low	-.03	.10	-.29
Medium	-.17	.07	-2.49**
High	-.32	.09	-3.43***
Informational Justice × Impulsivity in Predicting Interpersonal Deviance			
Level of Impulsivity	Simple Slope	SE	t(147)
Low	-.03	.09	-.28
Medium	-.14	.06	-2.12*
High	-.25	.10	-2.52**
Informational Justice × Impulsivity in Predicting Organizational Deviance			
Level of Impulsivity	Simple Slope	SE	t(147)
Low	-.03	.06	-.41
Medium	-.09	.05	-1.95*
High	-.15	.07	-2.17*

Note. †$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

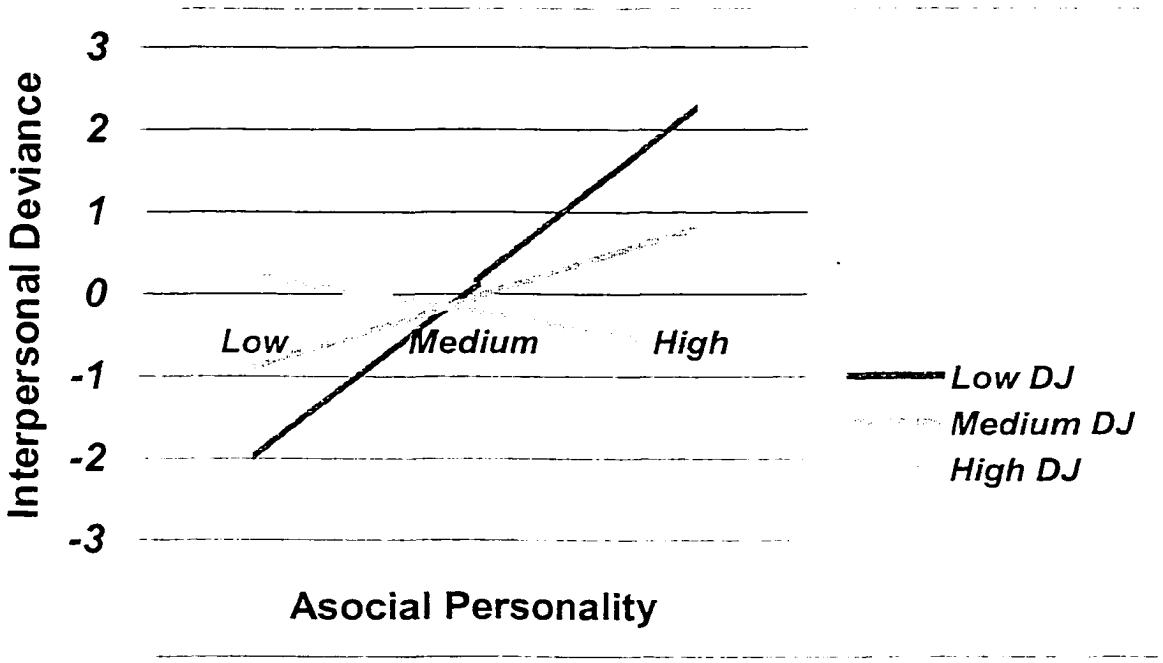

Figure 1. Interaction between Distributive Justice (DJ) and Asocial Personality in Predicting Interpersonal Deviance

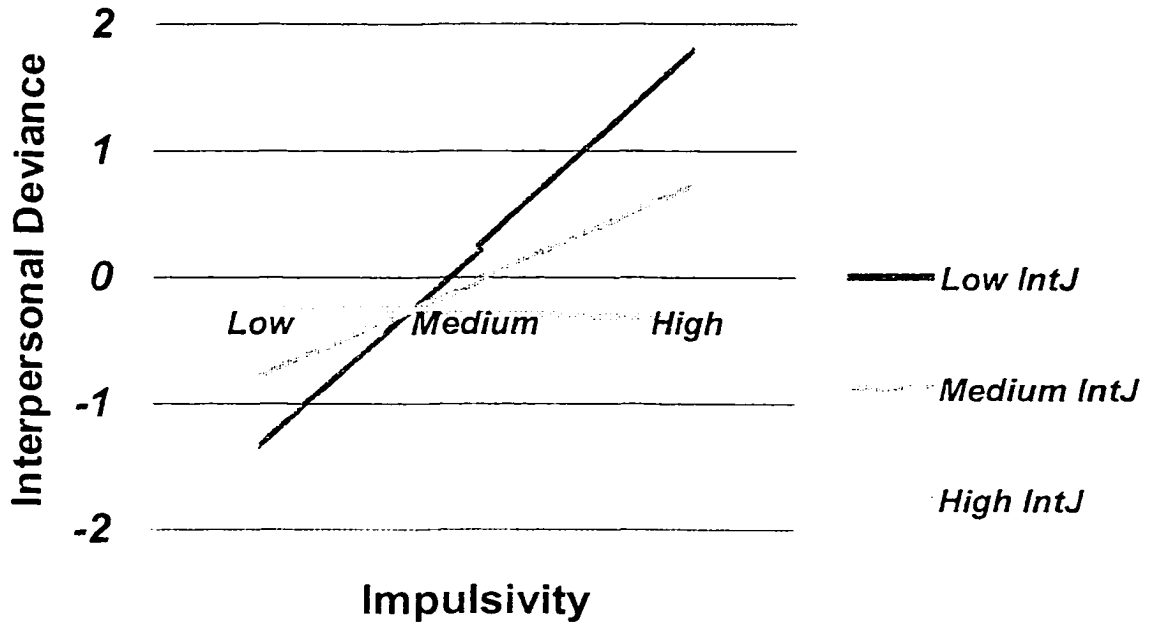

Figure 2. Interaction between Interpersonal Justice (IntJ) and Impulsivity in Predicting Interpersonal Deviance

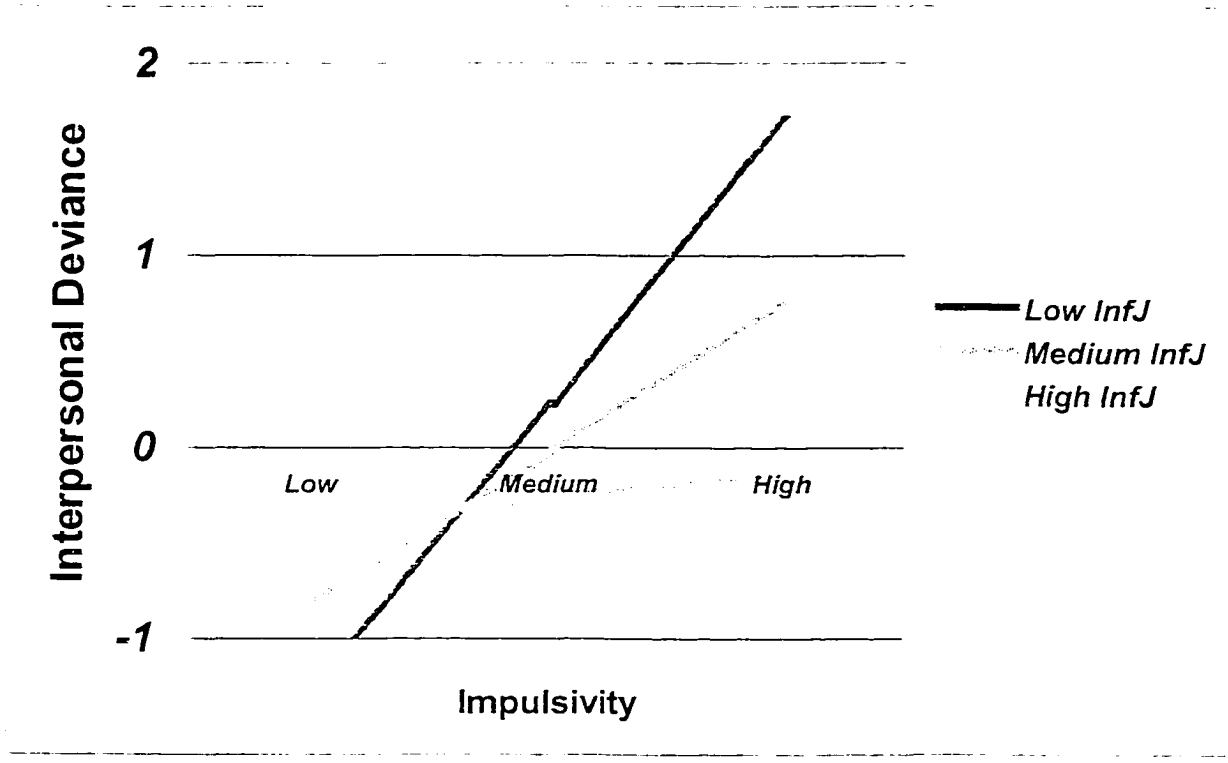

Figure 3. Interaction between Informational Justice (InfJ) and Impulsivity in Predicting Interpersonal Deviance

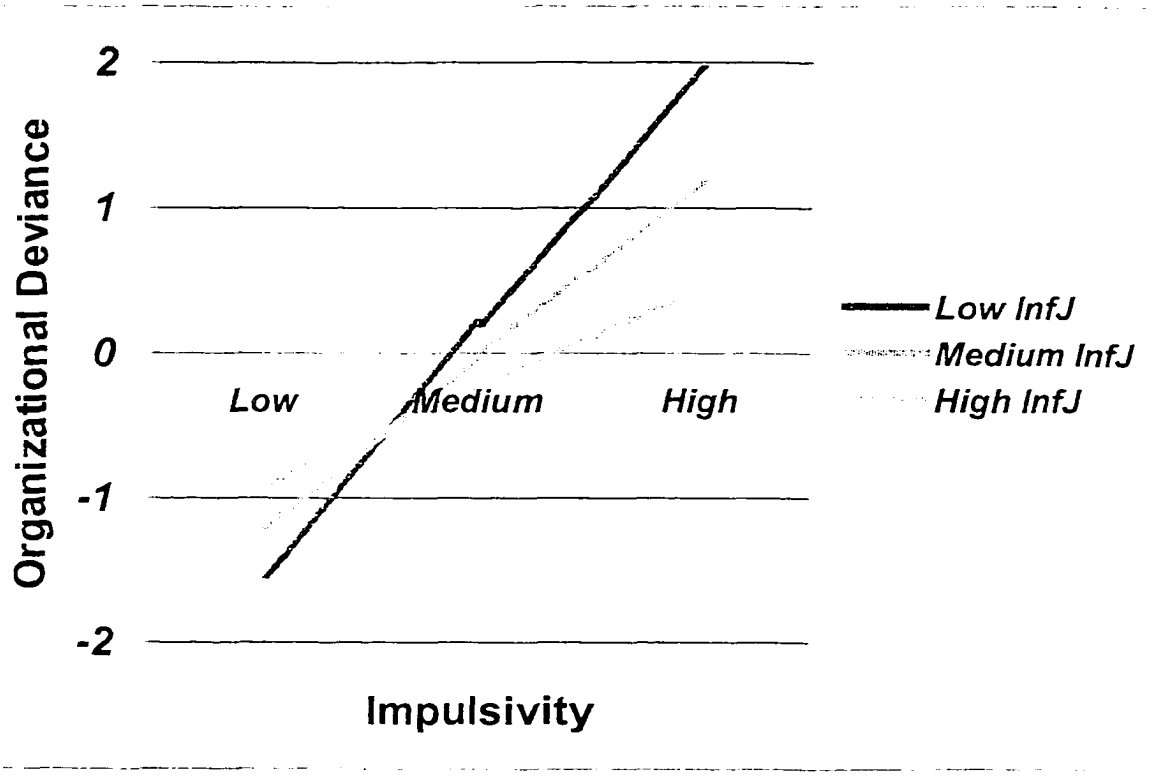

Figure 4. Interaction between Informational Justice (InfJ) and Impulsivity in Predicting Organizational Deviance