# FROM BAD TO WORSE:

# A SOCIAL CONTAGION MODEL OF ORGANIZATIONAL MISBEHAVIOR

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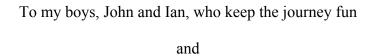
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To John, the man who makes me feel like I can conquer whatever comes my way

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#### **CHAPTER I**

## **INTRODUCTION**

This dissertation addresses the transmission or contagion of organizational misbehavior (OMB) among an organization's members. Specifically, I seek to uncover how the organizational misbehavior of the group works through social information to drive the organizational misbehavior of a focal individual. I also examine whether and how motivation, group factors, and personality moderate the relationship between an individual's social information regarding the misbehavior of their work group and the organizational misbehavior of the focal individual. In this chapter I introduce the concepts of organizational behavior (OMB) and social contagion, briefly describe the role of misbehavior in the study of organizations, and outline the significance and potential contributions of this study to the field of organizational behavior.

# What is Organizational Misbehavior?

Research in organizational misbehavior has burgeoned over the last twenty years, particularly during the last decade. The domain encompasses a wide variety of behaviors, including (but not limited to) theft (Hollinger, 1991), sabotage (Ambrose, Seabright, & Schminke, 2002), abusive supervision (Tepper, 2000), dishonesty (Lewicki, Poland, Minton, & Sheppard, 1997), withholding effort (Kidwell & Bennett, 1993), incivility (Pearson, Andersson, & Wegner, 2001), vandalism (Fisher & Baron, 1982),

sexual harassment (Fitzgerald & Shullman, 1993; Gutek & Koss, 1993), workplace bullying (Rayner & Keashly, 2005), and revenge (Bies & Tripp, 1998; Tripp & Bies, 1996).

Despite the increase in research, a commonly accepted definition of the phenomenon remains elusive. Scholars have defined, operationalized, and identified its parameters in numerous ways using at least six different terms for the same general behavioral domain (Robinson & Greenberg, 1998a). These terms include organizational misbehavior (Vardi & Wiener, 1996), workplace deviance (Robinson & Bennett, 1995), antisocial behavior (Giacalone & Greenberg, 1997), workplace aggression (Baron & Neuman, 1996; Folger & Baron, 1996), organization-motivated aggression (O'Leary-Kelly, Griffin, & Glew, 1996), and organizational retaliation behavior (Skarlicki & Folger, 1997). The definitions applied to these terms often incorporate characteristics such as the perpetrator's intent to harm, the target of the harm, organizational and/or societal deviance from norms, whether the action is direct or indirect, and the harmful or beneficial consequences of the behavior (Robinson et al., 1998a). The literature review in Chapter 2 expands on these terms and their associated definitions and constructs. For the purposes of this dissertation, organizational misbehavior is defined as any intentional action by a member of an organization that violates core organizational and/or societal norms.

## What is Social Contagion?

Social contagion occurs when individuals change their behavior as a result of interaction with others (Latane, 2000). Some researchers also describe social contagion as an actor's adoption of behavior as a function of their exposure to other actors'

knowledge, attitudes or behavior (Van den Bulte & Lilien, 2001). In social contagion, behavior spreads from one or more "initiators" to an "imitator." Social or behavioral contagion is often characterized by four conditions (Redl, 1949). First, there tends to be an area of acute conflict within the imitator. The imitator feels a strong impulse toward a certain need yet at the same time feels pressure from his or her conscience not to fulfill the impulse. Second, there is a high level of instability or fluctuation in the imitator's personality balance in the area of conflict. In other words, the impulse is strong enough to press for fulfillment, and the imitator's internal controls and conscience are just strong enough to inhibit that fulfillment. Third, there tends to exist a similar type of impulse expression in the initiator. The initiator's impulse must be in the same direction as that of the imitator. Last, there must be an observable acting out of the impulse by the initiator, which is accompanied by an apparent and complete lack of fear on the part of the initiator. Research suggests that social contagion is especially apt to occur in situations where individuals are trying to manage uncertainty (Burt, 1987; Williamson & Cable, 2003).

It is important to distinguish contagion from other types of social influence such as conformity and from social learning. In conformity, the judgment of other individuals produces conflict in the imitator and the imitator must resolve this conflict on his or her own (Wheeler, 1966). For example, new hires may perceive that their coworkers intentionally work slow on the job and risk judgment or ostracism by those organizational members if they choose to work faster than their colleagues. In social contagion, the conflict lies within the imitator prior to interaction with other individuals and it is this presence of others that contributes to the imitator's conflict resolution (Redl, 1949;

Wheeler, 1966). Extending the previous example, in social contagion the new hire is already motivated to intentionally work slow and his or her perception of the slow work of coworkers allows the new hire to resolve that conflict and intentionally produce a low quantity of work. In contrast, while conformity incorporates an element of conflict, social learning does not. The social learning perspective suggests that aggression, which is part of the organizational misbehavior domain, is prompted by external factors such as situational cues and reinforcers, rather than internal factors such as instincts or drives. It also suggests that aggressive behavior is learned through direct experience and imitation. Those who see an aggressive model rewarded for their aggressive behavior are more likely to also engage in aggressive behavior (Bandura, 1973). For instance, a manager may observe a colleague publicly and verbally berate a subordinate as a means to illicit higher quality or quantity of work from the employee which in turn reflects positively on the abusive manager. The observing or imitating manager perceives that the abusive manager gets promoted as a result of his or her highly productive subordinates. The observing manager then begins to use similar tactics with his or her subordinates in order to increase their performance and earn the manager a promotion. Contagion theories suggest that both external and internal factors trigger the spread of behavior among individuals (Polansky, Lippitt, & Redl, 1950; Wheeler, Smith, & Murphy, 1964). In social contagion, the imitating manager would be motivated by an internal factor, such as low justice perceptions or work frustration, and also by an external factor, such as observing an imitator's abusive behavior which goes unpunished or earning rewards for mistreating subordinates. Internal factors, external factors and interaction with initiators are key predictors of social contagion.

This dissertation develops and tests a theoretical model of the transmission of organizational misbehavior. This model seeks to address two major research questions. First, does organizational misbehavior act as social contagion spreading from one employee to another through social information? Second, how might motivation, group and personality factors affect the strength of the relationship between the social information and the spread of organizational misbehavior?

Evidence from empirical testing of the model presented here may help us to better understand the potential transmission of organizational misbehavior -- how one bad apple may spoil others in the barrel.

# Why is Organizational Misbehavior Significant to Organizations?

One can open a newspaper on almost any given day and find reports of employees or even entire organizations that have engaged in misbehavior. Up to 75 percent of employees report they have stolen from their employers at least once, and half of those have stolen as least twice (McGurn, 1988). Almost half of women have experienced sexual harassment in the workplace within a span of two years (Gruber, 1990). Over 60 percent of adults know of someone who has reported to work while under the influence of alcohol or other illicit drugs (Hazeldon Foundation, 1996). Be it theft, sabotage, vandalism, computer fraud, embezzlement, corruption, or violence, it seems that misbehavior in the workplace is a prevalent phenomenon. Organizational misbehavior is not only common but costly. It is estimated that the annual cost for employee theft in the U.S. approaches \$200 billion (Buss, 1993) and \$4.2 billion for workplace violence (Bensimon, 1997).

In addition to economic costs, organizations suffer through reduced organizational functioning as a result of organizational misbehavior. For example, subordinates who perceive their supervisors as abusive report lower normative and affective commitment, experience more psychological distress, and have a higher rate of turnover (Tepper, 2000). In addition, petty tyranny tends to result in a target's lowered self-esteem, increased intent to leave, and decreased productivity (Ashforth, 1997). Misbehavior in the workplace may not only harm an organization member, but through that harm have additional detrimental effects on the organization itself by reducing its level of functioning and its members' organizational commitment.

Organizational misbehavior often has effects far beyond those directly involved in the actions. Not only does organizational misbehavior take an economic toll on the organization and an emotional toll on its members, some studies indicate that interpersonal misbehaviors, such as bullying or incivility, have a spiraling effect (Bennett & Robinson, 2003). Spiraling means the behavior escalates and becomes increasingly intense over time (Andersson & Pearson, 1999), whereas with contagion the behavior is spread from person to person without regard to intensity. Some studies note that misbehavior affects not only those within the organization, but also those outside the organization such as family members and friends of those involved (Andersson et al., 1999). Other research suggests that abusive forms of misbehavior create a vicious circle where the abused individuals become less productive and are therefore seen as entitled to increased abuse (Ashforth, 1994; Keashly & Jagatic, 2000). These findings indicate that while organizational misbehavior may start out mild and involve only a few individuals,

over time the seriousness of the behavior increases and the affected number of organizational members multiplies.

#### **Contributions of Current Research**

Organizational misbehavior research has grown rapidly in recent decades, resulting in greater understanding of the antecedents, consequences, and dimensions of this phenomenon. However, few studies have investigated its social determinants, particularly in relation to its potential to spread through workgroups, departments, and even whole organizations. Contagion theory and empirical research have increased in the psychological and sociological literatures since the 1950s. However, the management literature has devoted limited research attention to social contagion (Brett & Stroh, 2003; Burt & Janicik, 1996; Van den Bulte et al., 2001; Williamson et al., 2003). In the studies that do address this phenomenon, social contagion rarely is a major theoretical element. This dissertation extends and synthesizes both streams of research – organizational misbehavior and social contagion — by evaluating the transmission of misbehavior among organizational members.

I propose that organizational misbehavior acts as a social contagion and is transmitted among an organization's members. First, my model (developed in Chapter 3) suggests that the likelihood of its transmission is through the social information a focal individual has of their work group's organizational misbehavior (i.e., witnessing a coworker or supervisor engage in theft or sexual harassment). Second, I propose that motivation (i.e., fairness perceptions), group factors (i.e., cohesion and informal sanctions) and personality (i.e., negative affectivity and honesty-humility) moderate the

relationship between the focal individual's social information and their own organizational misbehavior.

This model, given empirical support, contributes to our understanding of the social transmission of organizational behavior in three ways. First, the model of the transmission of organizational misbehavior proposed here attends to the social determinants of these behaviors. Although some scholars have suggested that organizational misbehavior is socially contagious (Robinson et al., 1998a), the factors that may facilitate such transmission have not been theorized or meaningfully tested. In this dissertation, the contagion model considers the social, motivational, group level and personality elements that may cultivate the spread of bad behavior among an organization's employees.

Second, this research extends the broader management literature. The topic of social influence has been widely addressed in the management literature, but only a handful of those studies incorporate the construct of social contagion (Brett et al., 2003; Burt et al., 1996; Van den Bulte et al., 2001; Williamson et al., 2003). Although focused on organizational misbehavior, this study of social contagion in organizations also informs the wider influence literature and be applicable to various topics where attitudes and behaviors can be thought of as transmissible, such as ethical and organizational citizenship behavior.

Third, this model primarily focuses on social factors that may drive the spread of organizational misbehavior. With its broad focus, the framework I propose provides a larger and perhaps clearer picture of how misbehavior may spread among organizational members. Rather than focusing on individual or organizational level drivers of these

actions, the model seeks to clarify how social factors may work to support socially contagious misbehavior.

I organize the rest of the dissertation proposal in the following manner. Chapter 2 provides a comprehensive review of relevant literature concerning organizational misbehavior and social contagion. In Chapter 3, I propose a theoretical framework describing the contagious nature of organizational misbehavior, and present specific hypotheses related to this model. Chapter 4 outlines the study's design, procedures, participants, and measures used. Chapter 5 presents the empirical results of the study including measurement analysis, justification of aggregation, descriptive statistics and hypotheses testing. In Chapter 6, I conclude with a discussion of the study's findings, contributions, implications, limitations and directions for future research.

#### **CHAPTER II**

## REVIEW OF RELEVANT LITERATURE

In this chapter I review two streams of literature relevant to evaluating organizational misbehavior as a social contagion: research in the organizational misbehavior domain and research in social contagion. The review is divided into five major sections. First, I review the sociological and criminological roots of organizational misbehavior. Second, to provide a foundation and vocabulary for discussion of organizational misbehavior in the management literature, I review the terminologies and typologies that dominate the field. Then I review chronologically the organizational misbehavior research in the management literature. Fourth, I examine the theoretical and empirical literature related to social contagion. Lastly, I summarize the challenges and opportunities implied by the existing literature and argue for the value of a theoretical model proposing misbehavior at work as a socially transmitted phenomenon.

## Sociological and Criminological Foundations of Organizational Misbehavior

Research in organizational misbehavior owes much to the 1980s sociological deviance literature, and specifically to the work of R.C. Hollinger and colleagues. Early employee deviance research sought to characterize the rule-breaking nature of such behaviors by categorizing them as counterproductive behavior (damaging an organization's property) and doing little (engaging in low quantity or quality work)

(Mangione & Quinn, 1975). One of the predominant typologies of misbehavior in the workplace stems from the sociological research by Hollinger and Clark (1982a) proposing two categories of employee deviance – property deviance and production deviance. Property deviance was described as behavior in which an employee acquires or damages property belonging to their employer (i.e., theft of tools, equipment or money, vandalism). Production deviance refers to behaviors which violate organizational norms regarding the quality and quantity of an employee's work (i.e., excessive breaks, withholding effort).

Foundational research focused on regulation or control of deviance. In a study of blue-collar theft, informal work group norms determined both the type and amount of property theft among a manufacturing plant's employees (Horning, 1970). A multiorganizational study found that informal sanctions by one's coworkers predicted both property deviance (e.g., theft of equipment or money) and production deviance (e.g., tardiness, slow or sloppy workmanship) better than the perceived severity of formal sanctions by organizational management (Hollinger et al., 1982a). The findings indicate that formal sanctions constrain workplace deviance indirectly by shaping the informal sanctions created by one's coworkers (Hollinger et al., 1982a). Similarly, in a study of garment workers, low fairness perceptions had little effect on an employee's propensity to steal (Sieh, 1987). Instead, group norms regulated what could be taken, providing strict guidelines on what could be thieved and how the action should or should not be carried out (i.e., take only what you need; don't blow the whistle on other workers; use a variety of methods to steal rather than only one) (Sieh, 1987). In a follow up to their earlier research, Hollinger and Clark (1983) found that the likelihood of being caught and that younger employees are not as easily deterred as their older coworkers. A later article based on the same dataset indicated that employees are less likely to engage in deviance at work if they are more socially bonded, or attached, to non-deviant coworkers (Hollinger, 1986). One study approached control of deviance from an organizational policy perspective and found that institution of an anti-theft policy was associated with lower theft rates (Parilla, Hollinger, & Clark, 1988).

All of these studies suggest that the actions and influence of one's coworkers and organizational factors significantly affect an employee's likelihood of engaging in misbehavior at work. It remains unclear, however, how the severity and certainty of punishment, influence and actions of others, and interactions with coworkers may *work together* to regulate or deter misbehavior in the workplace.

# Terminology and Typology of Organizational Misbehavior

Although the sociological literature generally agrees on the use of the term 'deviance' to describe misbehavior, there is little consensus regarding terminology and definitions in the management literature. Numerous scholars have offered new terms for similar behaviors, often with much overlap in definition and manifestation of the actions. The following sections outline the major constructs in this domain, comparing and contrasting their terminology, definitions, and characterizations.

# Terminology in Organizational Misbehavior

Six distinct terms have emerged for the same broad behavioral domain (Robinson et al., 1998a). These terms include organizational misbehavior (Vardi et al., 1996),

workplace deviance (Robinson et al., 1995), antisocial behavior (Giacalone et al., 1997), workplace aggression (Baron et al., 1996; Folger et al., 1996), organization-motivated aggression (O'Leary-Kelly et al., 1996), and organizational retaliation behavior (Skarlicki et al., 1997). More recently, counterproductive work behavior (CWB) has gained popularity in this domain (Fox, Spector, & Miles, 2001; Mikulay, Neuman, & Finkelstein, 2001; Sackett & DeVore, 2002). Table 1 lists these terms along with their definitions and distinguishing characteristics. This review employs many of the terms in Table 1 in discussing theories and findings in the literature. When specific theories or studies are cited, I use the term specified within a given article rather than using the above terms interchangeably. To get at similarities and differences among constructs listed in Table 1, I compare them along three distinguishing attributes: intent to harm, target of harm, and normative deviance.

First, organizational misbehavior often specifies behaviors by employees whose *intention is to harm* the organization or its members (Ambrose et al., 2002; Andersson et al., 1999; Baron et al., 1996; Folger et al., 1996; Giacalone et al., 1997; Greenberg & Scott, 1996; O'Leary-Kelly et al., 1996; Skarlicki et al., 1997; Vardi et al., 1996). Workplace deviance often includes behaviors which result in harm; however, it does not stipulate the harm must be intentional (Robinson et al., 1995; Robinson & Bennett, 1997). Counterproductive work behaviors specifies those behaviors which are volitional but does not require intent to harm (Spector & Fox, 2005).

Second, many of the terms identify a *target of the harm*, often that the behavior is directed at either the organization as a whole or the organization's members (Ashforth, 1994; Baron et al., 1996; Folger et al., 1996; Fox & Spector, 1999; Giacalone et al., 1997;

O'Leary-Kelly et al., 1996; Robinson et al., 1995; Skarlicki et al., 1997). Workplace aggression indicates that the behavior may not only target current organizational members but former members as well (Baron et al., 1996). Counterproductive work behaviors target the organization or its stakeholders (Spector et al., 2005). The organizational misbehavior construct developed by Vardi & Weiner (1996) also includes in its definition those behaviors directed at the work itself and at organizational outsiders such as customers or vendors.

Third, *deviance from organizational norms* characterizes some definitions in this domain. Workplace deviance (Robinson et al., 1995) is one example. This attribute has its roots in the sociology of deviance literature, which suggests that deviant behavior should be defined in terms of the standards of a specific reference group rather than to a classification of moral absolutes (Kaplan, 1975). Definitions of organizational misbehavior adopt a similar but broader perspective, specifying deviance from organizational and/or societal norms (Vardi et al., 1996). No mention of norm deviance is found in definitions of antisocial behavior (Giacalone et al., 1997), workplace aggression (Baron et al., 1996), organization-motivated aggression (O'Leary-Kelly et al., 1996), organizational retaliation behaviors (Skarlicki et al., 1997), or counterproductive work behaviors (Spector et al., 2005).

# Typologies in Organizational Misbehavior

Compared to definitions and terminology, there is greater consensus in the classification of organizational misbehavior, possibly because there is considerable overlap among specified dimensions. Two major typologies are particularly important to the discussion of this behavioral domain. The first, initially proposed by Hollinger and

Clark (1982a) and expanded by Robinson and Bennett (1995), focuses on deviant workplace behaviors. The second uses organizational behavior as the main construct of a typology specified by Vardi and Wiener (1996). The following section examines the similarities and differences of these classification systems.

Hollinger and Clark's typology (Hollinger et al., 1982a) represented a useful conceptualization of the dimensions of deviance in the workplace, but it addressed only behavior directed at the organization. It left unanswered questions concerning behavior which might be directed at the members of the organization, behaviors of a more interpersonal or interactional nature. Robinson and Bennett (1995) developed a typology which built upon that of Hollinger and Clark and also incorporated actions targeted at organization members. Their expansion categorizes the wide variety of behaviors along two dimensions: the severity of the behavior (minor versus serious), and the target of the behavior (interpersonal versus organizational). The four resulting classifications include production deviance (minor-organizational), property deviance (serious-organizational), political deviance (minor-interpersonal), and personal aggression (serious-interpersonal) (Robinson et al., 1995). (See Figure 1 for a visual depiction for the Robinson & Bennett typology.) The two organizationally directed categories, production deviance and property deviance, are similar to those classifications theorized by Hollinger and Clark (1982a). Political deviance is described as *minor* and *interpersonally* harmful behavior (showing favoritism, gossiping about co-workers) whereas personal aggression is classified as more severe than political deviance, and defined as aggressive or hostile behavior directed toward other organization members (e.g. verbal abuse, sexual harassment) (Robinson et al., 1995). The authors used a multidimensional scaling study

to derive the above typology along two dimensions, severity and target of the behavior. The four resulting quadrants were further validated using four judges who were blind to the study and its results. The judges coded each behavior into one of the quadrants and kappas were calculated to evaluate interrater reliability. The resulting kappas ranged from 74 to 89 percent suggesting a high level of validity for their typology (Robinson et al., 1995).

The typology by Vardi & Wiener (Vardi et al., 1996) takes a broader and more inclusive approach to misbehavior in the workplace. They define organizational behavior as "any intentional action by members of organizations that violates core organizational and/or societal norms" (p. 151). While organizational misbehavior violates norms of either the organization or of society, it is not necessarily negative or undesirable behavior. For example, whistle-blowing may be viewed as unacceptable by organizational members but as commendable by organizational outsiders such as society at large. Organizational misbehavior does not stipulate the consequences of the behavior but rather that its effects can be harmful or beneficial. Vardi and Wiener describe OMB as made up of three basic types of behaviors based on the motivation of the perpetrator. First, behaviors that are intended to benefit the self are labeled Type S. These include behaviors such stealing from the organization or coworkers, overcharging customers, and selling organizational secrets. The second category refers to behaviors that are intended to benefit the organization, and are labeled Type O. Behaviors of this type may include falsifying company records to win a new client or misrepresenting company information to auditors or government officials. Type D is the third category and represents

behaviors intended to *inflict damage* on the organization or its members. Examples of Type D behaviors may include sabotage, backstabbing, or verbal abuse.

As illustrated in Table 1, most of the organizational misbehavior domain specifies actions that are harmful or destructive to the organization itself, to its members, or to organizational outsiders. However, recent theory also evaluates deviance as a potentially constructive phenomenon (Warren, 2003). Constructive deviance departs from reference group norms and is socially or organizationally beneficial, whereas destructive deviance also departs from those norms but is socially or organizationally harmful (Warren, 2003). Some propose that deviant behaviors can be prosocial because they serve to correct a perpetrator's behavior or restore justice (Tripp & Bies, 1997). Others focus on the norms against which organization members deviate in a positive manner such as organizational citizenship behavior (Van Dyne, Graham, & Dienesch, 1994) or whistle-blowing (Near & Miceli, 1995). The organizational misbehavior framework proposed by Vardi and Wiener (Vardi et al., 1996) encompasses behaviors that may be characterized as either constructive (whistle-blowing) or destructive (pilferage). For the purposes of this dissertation, organizational misbehavior is defined any intentional act by an organizational member within the organizational context that violates organizational and/or societal norms.

## **Organizational Misbehavior Research**

While a common terminology or typology of the organizational behavior domain remains elusive, research on this topic grows steadily. I review chronologically the organizational misbehavior literature of the last two decades. The following sections outline the initial emphasis of employee deviance as a reaction to injustice, followed by

an overview of the escalation of research that focused on interpersonal factors, individual attributes and organizational culture, and concluding with an evaluation of the consequences of organizational misbehavior.

## Employee Deviance as Inequity Reaction

In the late 1980s and early 1990s, research focused on justice as an antecedent to deviant employee behavior. Initially, the behavior of interest was employee theft. In a particularly compelling study Greenberg (1990) found a significant increase in employee pilferage after pay in a manufacturing plant was temporarily cut by 15 percent. In Greenberg's study, the theft rate declined for those who were given adequate explanations for the cut, while the theft rate remained high for those not given such an explanation. These findings suggest that the fairness with which employees feel treated by their employers is an important predictor and moderator of employee responses to payment inequity. A similar lab study involving undergraduate students found similar results linking low informational and interactional fairness perceptions to theft by the subjects (Greenberg, 1993).

Research soon expanded to evaluate the impact of justice perceptions on a broad array of organizational misbehaviors. Studies investigated organizational misbehavior as a form of retaliation against one's employer for perceived mistreatment. Some researchers proposed that theft can be a form of both retaliation and restitution for distributive injustice (Greenberg et al., 1996). Research suggests a link between the injustices an employee perceives and the violent (Folger et al., 1996) or aggressive (Greenberg & Alge, 1998) behavior an employee may exhibit as a way of striking back at an employer. Specifically, when interactional and procedural justice were low, there was

a negative relationship between distributive justice and retaliatory behavior (Skarlicki et al., 1997). This suggests that unfair outcomes in and of themselves are not enough to prompt deviant behavior. Instead, workplace deviance is more a result of when employees perceive unfair interpersonal treatment in conjunction with unfair outcomes (Greenberg et al., 1998).

Research on justice as a cause or antecedent of organizational misbehavior continued to grow throughout the 1990s and up through the present as researchers seek to understand the relationships the various forms of justice may have with the field's numerous misbehavior constructs. One study found that interactional justice was negatively related to organizational deviance (misbehavior directed at the organization such as theft or sabotage) and interpersonal deviance (misbehavior directed at organizational members such as verbal abuse or sexual harassment), but distributive justice was negatively related only to interpersonal deviance (Aquino, Lewis, & Bradfield, 1999). This study also indicated that compared to distributive and procedural justice, interactional justice perceptions are stronger predictors of workplace deviance directed toward the organization and its members (Aquino et al., 1999).

Similarly, research evaluated the importance of justice as a predictor of employee misbehavior in contrast with the significance of other antecedents. In a study of 132 interviewed subjects, injustice was the most common cause of sabotage -- more frequent than powerlessness, frustration, facilitation of work, or boredom/fun (Ambrose et al., 2002). Here, individuals were more likely to engage in retaliatory sabotage when they held interactional injustice perceptions; however, when their justice perceptions were distributive in nature, the subjects were more likely to engage not in sabotage but in an

attempt to distribute outcomes to restore equity (Ambrose et al., 2002). Furthermore, the source of the injustice and the target of the sabotage were often identical (Ambrose et al., 2002).

Recent research indicates the complex role of justice of predicting misbehavior at work. While the Abrose et al. study indicates that interactional justice is a better predictor of sabotage, another study found that although interpersonal justice was a more significant predictor of support for aggression than was distributive justice, procedural justice was a better predictor than interpersonal or distributive justice, (Kennedy, Homant, & Homant, 2004). There is much evidence of the role of injustice in predicting misbehavior at work, but recent research indicates that it is not necessarily the most significant factor. One study found that among subjects in the nationwide plants of a national organization, a community's violent crime rate predicted workplace aggression whereas as the plants' procedural justice climate did not (Dietz, Robinson, Folger, Baron, & Schulz, 2003). These findings indicate that although injustice perceptions are often significant antecedents of organizational misbehavior, there are potential factors *outside* the organization and its membership which may be important predictors of this phenomenon.

The mid-1990s saw a rapid expansion of organizational misbehavior research, with much of the attention focused on interpersonal factors, individual attributes, and organizational culture. In the following sections I review organizational misbehavior research within each of these categories, and then discuss research exploring the consequences of OMB.

## **Interpersonal Factors**

Social Influence. Social influence refers to the force one person (the agent) exerts on another (the target) to induce a change in the target's attitudes or behaviors (French & Raven, 1959). Greenberg's work on social influence and employee theft offers one of the few theories regarding influence as a predictor of theft (Greenberg, 1997a). Greenberg proposed that priming conditions (ambiguous situations and exposure to salient others) must first exist, and then are followed by social triggers such as informational social influence (e.g., sharing knowledge of opportunities for theft), normative social influence (e.g., conformity pressure to steal), and cognitive social influence (social support in rationalizing theft) (Greenberg, 1997a).

One of the first studies to address group influence on workplace deviance is that of Robinson and O'Leary-Kelly (1998c). They found a positive relationship between the level of antisocial behavior exhibited by an individual and the level engaged in by the individual's work group members. Individual tenure in the work group, degree of similarity in the levels of group members' antisocial behavior, task interdependence of work group members, and the likelihood of punishment by management moderated this relationship. Their research also found that when a group member engaged in less antisocial behavior than his or her group, the individual experienced lower satisfaction with other group members (Robinson et al., 1998c).

Extending the work of Robinson and O'Leary-Kelly, Glomb & Liao (2003) studied interpersonal aggression, examining the influence of individual differences variables and proposing additional social influence effects on that aggression. For instance, one study found a reciprocal effect of aggressive behavior, such that being the

target of work group members' aggression was positively related to an employee engaging in aggressive behavior (Glomb et al., 2003). These results indicate that forms of organizational misbehavior, such as workplace aggression, may predict future misbehavior and also be a consequence of previous misbehavior – suggesting a contagious effect among an organization's members.

Interestingly, in addition to influencing group members *toward* engaging in antisocial behaviors, it appears that groups can also influence their members *away from* such behavior. Hollinger and Clark (1982a) found that informal sanctions by one's coworkers predicted both property deviance (e.g., theft of equipment or money) and production deviance (e.g., tardiness, slow or sloppy workmanship) better than the perceived severity of formal sanctions by organizational management. Their findings suggest that formal sanctions constrain workplace deviance indirectly by shaping the informal sanctions created by one's coworkers.

In sum, research on social influence suggests that one's work group and coworkers play a role in determining an individual's likelihood of engaging in organizational misbehavior. Largely unexplored, however, is the question of how these interpersonal factors interact with individual and organizational factors to predict the spread of misbehavior at work.

Norms. Much of the theory of norms and organizational misbehavior focuses on an individual's perception of what is appropriate or commendable behavior. Greenberg (Greenberg, 1997a) theorized that employees are motivated to steal from their employer due to supervisory and/or work group norms which condone such behavior. Robinson and Kraatz (1998b) proposed that an organization's members use what they termed

'neutralization strategies' to reduce or eliminate the perceived discrepancy between workplace deviance and the norms and expectations that such behavior violates. They suggested that individuals try to alter either the perception of the behavior or the perception of the organizational norm(s) from which the behavior deviates. The purpose of these strategies is to bridge the gap between the perceived norms and the behavior (Robinson et al., 1998b).

Informal work group norms may be better predictors of misbehavior at work than are formal organizational norms. In a study of on-the-job drug use and theft by nurses, work group norms often differed from formal policy and procedures, yet the work group norms were better predictors of individuals' behaviors (Dabney, 1995). Similarly, Segal (2002) found that theft, bribery, and extortion were organizational norms for the New York City school custodial system and supported by the organization's culture of deviance. However, other studies indicate that norms may have less predictive significance than other factors such as integrity. For instance, a study of undergraduates found that a individual's integrity, and the desirability and risk of counterproductive behavior were more important factors than were group norms in predicting the likelihood of subjects engaging in counterproductive behaviors (Mikulay et al., 2001).

In sum, under certain circumstances norms emerge as significant predictors of organizational misbehavior. However, little is understand about the conditions under which norms interact with individual or organizational factors to spread misbehavior in the workplace.

#### Individual Attributes

Control. Employee feelings of powerlessness, stress and frustration are significant predictors of organizational misbehavior. Control often incorporates an employee's perceptions of powerlessness which result from lack of control over their work environment or uncertainty about changes in that environment (Bennett, 1998). Powerlessness has also been described as a lack of autonomy (Ashforth, 1989). Some studies indicate that destructive behavior may increase one's feeling of control (Allen & Greenberger, 1980), suggesting that lack of control precedes organizational misbehavior. Other research proposes that those who hold perceptions of powerlessness are more likely to engage in deviant behavior directed at other *organization members*, but are not more likely than those who perceive more control over their environment to engage in deviant behavior directed at the *organization* (Bennett, 1998).

In addition to powerlessness, other studies suggest that feelings of frustration or stress predict misbehavior at work. For instance, Spector and colleagues propose that frustration triggers an emotional response which often leads to antisocial behaviors (Spector, 1997; Spector & O'Connell, 1994). Evidence indicates that both constraints and experiencing frustration are related to antisocial behaviors such as aggression, sabotage and withdrawal (Spector, 1997; Spector et al., 1994; Storms & Spector, 1987). Closely related is research evaluating stress or job stressors as antecedents to workplace deviance. Job stressors are described as stressful events in work contexts (Chen & Spector, 1992). Glomb (2002) found that job stress (defined as a hectic pace of work) and conflicts predicted workplace aggression. In a follow up study however, job stress, work group stress (i.e., lack of group cohesiveness, inadequate group support), and organizational

stress (i.e., stress related to change or leadership) accounted for very little variance in a model predicting an individual's aggressive behaviors, particularly when the reciprocal effects of workgroup aggression were accounted for (Glomb et al., 2003).

Attitudes. There is compelling research evidence that employee attitudes are significant predictors of organizational misbehavior. Early theory proposed that deviant employees hold attitudes that motivate them to adherre to social norms or to violate those norms (Kaplan, 1975). Empirical support for attitudes as misbehavior antecedents is growing. For instance, Aquino and Douglas (2003) found that attitudes in support of revenge strengthened the positive relationship between a threat to an employee's identity and the likelihood of that employee engaging in anti-social behavior. In terms of workplace aggression, those who possess more positive attitudes toward revenge (i.e., individuals who approve of vengeful acts) are more likely to report a higher incidence of aggression at work than their colleagues who possess less positive attitudes toward revenge (Douglas & Martinko, 2001).

Attitudes predict a wide range of misbehavior at work. One study of 4515 restaurant and grocery store workers found that four different attitudes were significantly predictive of theft, absenteeism, privilege abuse and substance abuse (Bolin & Heatherley, 2001). Theft approval was the most important attitudinal factor, predicting all of the above behaviors. Intent to quit and work-related dissatisfaction were each predictive of absenteeism, privilege abuse and substance abuse; company contempt was a significant predictor of theft (Bolin et al., 2001). All of these findings suggest that the attitudes of organization members have a significant impact on the likelihood of employees engaging in OMB. However, it is unclear how these attitudes are related to

other relevant factors such as injustice perceptions, organizational or work group norms, and the influence of coworkers. Of particular interest here is our limited understanding of how these forces come together to predict the contagious effects of organizational misbehavior

Personality. Two streams of research indicate that personality is important in predicting deviance. First, many studies have focused on an individual's positive and, more frequently, negative affectivity. Second, researchers have investigated the significance of the Big Five personality factors in predicting deviance in the workplace.

Most researchers who evaluate the role of affectivity in predicting workplace deviance have focused on negative, rather than positive, affectivity. There is evidence that negative affectivity moderates the relationship between predictors of organizational misbehavior and the behavior itself. For instance, Skarlicki, Folger and Tesluk (1999) found that negative affectivity moderated the positive relationship between injustice perceptions and retaliatory behavior such that when negative affectivity was high, low justice perceptions predicted retaliation. Other studies indicate that rather than just shaping one's justice perceptions, negative affectivity has a direct and unique relationship with both organizational deviance (i.e., deviance directed at the organization such as theft or intentionally working slow) and interpersonal deviance (i.e., deviance directed at the organization's members such as gossiping about a superior or backstabbing a coworker) (Aquino et al., 1999). One study proposed the importance of using both higher order factors and lower order specific emotions when examining affectivity; specifically, hostility as a discrete emotion was a better predictor of deviance than was a general mood indicator such as negative affectivity (Lee & Allen, 2002). In addition, there is some

incidence of workplace aggression (Douglas et al., 2001). Negative affectivity was not a significant predictor in a model predicting workplace aggression when used in conjunction with other individual difference variables such as trait anger, attitudes toward revenge, attribution style and previous exposure to aggressive cultures (Douglas et al., 2001). These diverse and sometimes contradictory findings indicate a complex relationship among negative affectivity, contextual factors, and other personality traits in predicting misbehavior at work.

Research also shows a relationship between Big 5 personality factors (Barrick & Mount, 1991) and organizational misbehavior. One study found that conscientiousness, emotional stability, and agreeableness moderated the negative relationship between positive perceptions of the work situation and workplace deviance (Colbert, Mount, Harter, Witt, & Barrick, 2004). In another study, the relationship between perceptions of the work situation and organizational deviance (in this study, withholding effort) was stronger when conscientiousness was low rather than high (Colbert et al., 2004). Colbert and colleagues also found a role for agreeableness: when agreeableness was low, the relationship between perceived organizational support and interpersonal deviance (i.e., saying something hurtful to a coworker) was stronger. Lee and colleagues (Lee, Ashton, & Shin, 2005) used the Big Five factors plus a sixth factor, honesty-humility (Ashton & Lee, 2001), to evaluate the relationship between anti-social behavior and personality traits among employees of five organizations in Korea. They found that honesty-humility and extroversion were significant predictors of anti-social behavior directed at both the organization and its members. In that study, agreeableness was negatively related to antisocial behavior against the organization (i.e., illegal drug us on the job) while conscientiousness was negatively related to such behavior directed toward its members (i.e., cursing at a coworker) (Lee et al., 2005).

## Organizational Culture

Organizational theorists suggest that an organization's culture is directly related to employee misbehavior, specifically to the unethical decision-making behavior of managers (Trevino, 1986). In their motivational framework of organizational misbehavior, Vardi and Wiener (1996) propose that organizational culture may operate as a normative influence on the likelihood of organization members to 'misbehave.' Recent theory proposes that if an organization's culture supports deviance, then its members will be more likely to engage in behavior that harms the organization or its employees (Bennett, Aquino, Reed, & Thau, 2005).

Much of the research relating culture to deviance is theoretical in nature, but there is empirical support for organizational culture's significance as a predictor of misbehavior in the workplace. One study found that a culture of dishonesty was a strong predictor of minor theft (i.e., taking home office supplies or using phone for personal purposes), major theft (i.e., altering timesheets or stealing from coworkers), abuse of one's position, productivity lying (i.e., hiding mistakes from a superior), and time theft (i.e., using sick leave when not ill) (Lewicki et al., 1997). Similarly, an organization's ethical climate is associated with organizational misbehavior. Ethical climate refers to the shared perceptions of what constitutes ethical behavior and how ethical matters should be managed in an organization (Victor & Cullen, 1987). Political deviance, which includes such behavior as gossiping, favoritism and blaming workers as classified by

Robinson and Bennett (1995), is related to an ethical climate where employees perceive that their organization is concerned about the welfare of its members (Peterson, 2002). The Rules, Instrumental and Caring dimensions of Victor and Cullen's ethical climate framework were negatively associated with organizational behavior of both managers and subordinates (Vardi, 2001). It is clear that culture plays an important role in predicting misbehavior at work; however, it is unclear how culture interacts with other factors at the individual or group level to predict this phenomenon.

# Consequences of Organizational Misbehavior

Organizational misbehavior has serious consequences for both the organization, its members, and sometimes for organizational outsiders. Research into petty tyranny (Ashforth, 1994) and abusive supervision (Tepper, 2000) provide much needed insight into the consequences of such behavior. A petty tyrant is defined as one who lords their power over others, such as subordinates (Ashforth, 1994). Ashforth proposed that tyrannical managers may contribute to low self-esteem and performance, and high frustration, stress, helplessness, and work alienation in their subordinates (1994). He found empirical support for a relationship between a superior's petty tyranny and their subordinate's helplessness and work alienation, and partial support for links between petty tyranny and a subordinate's frustration, stress, self-esteem and performance (Ashforth, 1997).

Tepper (2000) defined abusive supervision is described as the continued display of hostile verbal and nonverbal behaviors, excluding physical contact. He reported effects of abusive supervision on both organizational and personal outcome variables such as commitment to the organization and subordinate depression or anxiety.

Specifically, abusive supervision increased levels of emotional exhaustion and anxiety, a relationship that was partially mediated by organizational justice. Tepper (2000) found such behavior negatively associated with a subordinate's level of job satisfaction, life satisfaction, continuance commitment, normative commitment, and affective commitment, and positively related to work-to-family conflict, family-to-work conflict, and depression. These effects were fully mediated by organizational justice.

As the severity of organizational misbehavior increases, so do its consequences. In a phone survey of 598 employees asked to describe instances when they had been physically attacked or threatened while on the job, respondents' victimization at work was correlated with decreased job satisfaction, increased job stress and considerations for job change, as well as a greater likelihood that they would bring a weapon to work (Budd, Arvey, & Lawless, 1996).

While some forms of deviant behavior may not have dire and immediate consequences, theory suggests, and there is growing empirical support for the notion, that such behavior may escalate over time (Andersson et al., 1999; Glomb, 2002). Andersson and Pearson (1999) describe workplace incivility as rude behavior that disregards others and breaches the norms of respectful social interactions; they propose that this behavior spirals with an individual's perceptions of an incivility, which is followed by a reciprocal incivility, resulting in an escalation of incivilities which may lead to more intense forms of. Evidence suggests that incivility multiplies when left unchecked, and that it may 'spill over' beyond the instigator and target to witnesses of the incivility or to organizational members who may simply learn of an incivility through conversing with other employees (Pearson et al., 2001). Similarly, work group aggression has a

reciprocal effect in that being a target of work group members' aggression predicted the target individual's own aggressive behavior (Glomb et al., 2003). Like incivility, workplace aggression is susceptible to a reciprocity effect where aggression begets more aggression, and so on. There is a dearth of research in the escalation and spread of organizational misbehavior; however, the studies mentioned here to highlight the importance of studying the outcomes of such behavior, no matter how innocuous some of them may initially seem.

# **Theories of Contagion**

While the concept of contagion is an infrequent topic in the management literature, the notion is found often in the sociological and psychological literatures. The organizational behavior literature incorporates it through related concepts such as social learning theory (Bandura, 1973, 1977), social information processing theory (Salancik & Pfeffer, 1978), and emotional contagion (Barsade, 2002; Kelly & Barsade, 2001; Pugh, 2001). The following sections outline the conceptualizations of social contagion, the individual, group, and interactional factors that often predict a contagion effect.

# Conceptualizations of Social Contagion

The concept of contagion dates back to the late 1890s and early 1990s when Le Bon (Le Bon, 1903) referred to the term contagion in his book on crowd behavior. Without giving a definition of contagion, Le Bon proposed that emotions and behavior in a crowd are contagious to the extent that an individual will sacrifice his own interests to the group's interests (Le Bon, 1903). Although the concept is over a century old, there is neither a widely accepted definition of social contagion nor consensus about the types of

behavior included in this phenomenon. Redl (1949) offered one of the first conceptualizations of social contagion focused on behavior, rather than affect or emotions. Redl suggested that contagious behavior is "picked up" almost automatically by other members of the group and that intent is not necessary on the part of the initiator (Redl, 1949). In the 1980s, Raven and Rubin (1983) defined the term as "the spread of behavior, attitude, or emotional state among the members of a group or social organization in a manner resembling the spread of a contagious disease" (p. G-21). Levy and Nail (1993) described social contagion as the "spread of affect, attitude, or behavior from Person A (the 'initiator') to Person B (the 'recipient'), where the recipient does not perceive an intentional influence attempt on the part of the initiator" (p. 266). Most recently, Latane (2000) described social contagion as the phenomenon that occurs when individuals alter their behavior as a result of social interaction with others, and proposed that through the social process of relating to those with whom one interacts, individuals tend to adhere to the norms around them. In addition, he found that social comparison processes contribute not only to the transmission of norms but to their escalation as well (Latane, 2000). These descriptions suggest that social contagion is the spread of behavior from one person to another through the social information an imitator (or focal individual) has of the behavior of a referent other.

As noted above, there are numerous and overlapping definitions of social contagion. Levy and Nail (1993) performed a comprehensive theoretical and empirical review of the contagion and related literature, positing a reconceptualization of social contagion as a general type. Levy and Nail (1993) proposed that contagion should be broken down into subtypes of disinhibitory, echo and hysterical contagion. *Disinhibitory* 

contagion is social contagion in which an individual is in an approach-avoidance conflict, and experiences restraint reduction through observance of an initiator performing a desired act. The issue of reduction of restraints is central to the concept of disinhibitory contagion. For example, an employee (the imitator) sees a coworker (the initiator) steal money from their employer's petty cash box. Before witnessing this event, the imitator also wanted to steal from the employer. Upon seeing the initiator's actions, the imitator's fear of stealing (and perhaps of getting caught) diminishes. The imitator's inhibitions against theft are lowered and she or he more free to engage in theft from the organization than before witnessing the initiator's pilferage. The behavior of the initiator and imitator are not necessarily the exact same behavior but are in the same behavioral category (theft). Therefore, in the example above, the imitator may steal office supplies or submit fraudulent travel expenses rather than taking money from petty cash.

Echo contagion is defined as a situation where an unconflicted individual spontaneously imitates the behavior of the initiator (Levy et al., 1993). Unlike disinhibitory contagion, echo contagion does not require a conflict with in the imitator – the initiator's actions do not represent behavior that the imitator previously desired to do but was kept from doing because of some restraint (i.e., fear). Instead, with echo contagion the imitator's actions are relatively unconscious and involuntary. In contrast with disinhibitory contagion, echo contagion involves imitator behavior that is a close if not exact duplication of the initiator's behavior. Like disinhibitory contagion, echo contagion also requires that the behavior of the initiator be attractive to the imitator. One prosaic example of this is the phenomenon of coughing or yawning in group settings.

Very often when one person coughs or yawns, others in the room are more likely to do so too, without realizing this intention (Pennebaker, 1980).

Last, *hysterical contagion* refers to situations where physical symptoms are spread from an initiator to another individual in the absence of an identifiable pathogen (Levy et al., 1993). Like echo contagion, the imitator's behavior is exact with that of the initiator's; however, here the behavior is not attractive to the imitator. One example of hysterical contagion is the "mysterious gas poisoning" in the Jordan West Bank in 1983 in which several hundred students at the area's schools complained of difficulty breathing and dizziness which was later determined to be psychosomatic (Hefez, 1985).

Levy and Nail (1993) hypothesized that these subtypes each possess unique and distinct characteristics which function under different dynamics. Though these subtypes provide a more specific framework and conceptualization with which to study contagion, a review of the literature since the early 1990s indicates that these terms are rarely adopted into current studies of this phenomenon. In this dissertation, I use a conceptualization of contagion that is most like disinhibitory contagion as compared to echo and hysterical contagion. Disinhibitory contagion focuses on voluntary behavior that is supported by a reduction of restraints via a behavior model. It does not emphasize the physical symptoms and exact behavior match required in hysterical contagion nor the involuntary nature of echo contagion. Like disinhibitory contagion, organizational misbehavior is characterized as voluntary behavior that is motivated by either normative or instrumental forces.

The contagion literature tends to focus on factors related to the phenomenon at three levels of analysis: individual, group and interactional. (Contagion has not

generally been evaluated at the organizational level.) My review below of contagion research covers each of these levels in turn.

## Individual Factors

Given the social or interpersonal nature of the contagion construct, little theoretical and empirical research has addressed individual factors that may be implicated in this phenomenon. The works of Fritz Redl and Ladd Wheeler are the few exceptions. Redl provided the most comprehensive approach (1949), arguing that, along with group factors, there are individual level factors important to the prediction of a contagion effect (Redl, 1949). Specifically, he theorized that the production of contagion is related to four aspects of personality. First, is an existence of acute conflict within the imitator. The individual feels a strong impulse toward a certain need but also feel pressure from their conscience not to fulfill the impulse. For example, an employee may desire to sabotage an assembly line so that he can get a break from working the production line, but his conscience keeps him from doing so. Second, Redl contended that there is a high degree of instability or fluctuation in the imitator's personality balance regarding the area of conflict. In other words, the imitator's impulse is strong enough to press for fulfillment and their internal controls or conscience is just powerful enough to inhibit that fulfillment. Furthermore, if internal controls were stronger, there would be no contagious effect. Likewise, if controls were weaker, an initiator would be unnecessary. Third, Redl proposed the existence of a similar type of impulse expression in the initiator. The initiator's impulse should be in the same direction as that of the imitator. Returning to the example above, the employee's coworker (the initiator) sabotages the assembly line. Last, Redl posits an observable acting out of the initiator's impulse which is accompanied by an apparent and complete lack of fear on the part of the initiator. Continuing the example, the imitator witnesses the initiator sabotage the production line without fear of getting caught or displaying any remorse for the sabotage.

Other theorists built upon Redl's work and extended it by offering more specifics on exactly how the contagion may take effect. For instance, Wheeler (1966) focused on restraint reduction and theorizes that contagion is mediated by the lowering the imitator's motivation to avoid engaging in the desired behavior. Wheeler proposed that to the extent that the initiator is rewarded or not punished, the recipient's avoidance tendencies will be lowered. The foundation of Wheeler's theory lies in his assertion that lowering the imitator's avoidance tendencies in an approach-avoidance conflict is necessary to the contagion effect. Similarly, Turner and Killian proposed that individuals who resist the effects of contagion hold more rigid attitudes toward the initiator's behavior and also have greater motivation to refrain from the behavior as compared to those who do succumb to the contagion effects (Turner & Killian, 1957). While these theories are helpful in understanding what may happen or exist in the individual to facilitate contagion, this phenomenon is a highly social one and must incorporate group and interactional factors into any theory of social contagion and its effects.

# **Group Factors**

Researchers have identified five group factors important in the development of contagion. First, evidence suggests that contagion is more likely to occur, other things being equal, if the initiator is a high rather than low status group member (Lippitt, Polansky, & Rosen, 1952; Polansky et al., 1950; Redl, 1949). Two studies found that children often imitated the behavior of the high power children in their play group. In

other words, children higher in prestige were more often the initiators of contagion (Lippitt et al., 1952). Second, contagion is more likely when the behavior is highly valued among the group. Behaviors that have higher value or "count" more in the group have a greater probability of being contagious than are behaviors that seem carry little weight in the group (Redl, 1949). Third, with respect to spread rather than actual occurrence, behavior that allows the expression of the suppressed needs of the largest number of group members with high group status will have the most sweeping contagious effect (Redl, 1949). Fourth, development of subgroups and democratic group formation should lower the likelihood of contagion (Redl, 1949). This corresponds to findings indicating that the size of a stimulus group has an impact on the size of the contagion effect on passersby (Milgram, Bickman, & Berkowitz, 1969). Lastly, group atmosphere is predictive of a contagion effect: Behavior that represents the "group mood" will result in more contagious effects than those that do not (Redl, 1949). For instance, if the mood of the group is excitable, restless and rebellious, behavior that supports that mood, such as disregarding the directions of an authority figure, will be more contagious than would obeying instructions from the same leader.

Polansky, Lippitt and Redl (1950) also emphasized the importance of group psychological factors. Theorizing that group influence is a function of prestige, they found that subjects higher in prestige were more likely to be the initiators of contagion and were also more susceptible themselves to influence via contagion. Freedom to act was also identified as a possible determinant of contagion. Polansky et al. concluded that contagion is a function of four factors: (a) the security to act spontaneously; (b) the

individual's attributed group position; (c) potential for communicating with the group; and (d) the level at which individual reactions represent a common need of the group.

Empirical research has expanded our understanding of group factors in contagion. Psychologists have used the contagion concept to study a wide variety of behavioral phenomena. For instance, a stream of research indicates that contagion effects are at work in the sexual behavior of adolescents, such as those involved in the onset of sexual intercourse (Rodgers & Rowe, 1993; Rodgers, Rowe, & Buster, 1998; Rowe & Rodgers, 1994; Stoolmiller, 1998). Crandall (1988) found that a sorority member's binge eating was predicted by the binge eating level of her friends and found evidence to suggest that as friendships grew more cohesive, a sorority member's binge eating grew increasingly like that of her friends indicating a social contagion effect.

Contagion research has also sought to explain the social determinants of more severe or serious behavior such as antisocial or criminal activity. Research indicates that antisocial behavior is prevalence-driven (Boye & Slora, 1993; Jones, 1998; Jones & Jones, 2000). Specifically, antisocial behavior which is more pervasive in a family or community tends to result in a higher risk of an individual being affected by the contagious effects of such behavior (Jones et al., 2000). As previously noted, analogous results have also been found in the management literature, where the violence rates of a community predicted the workplace aggression of a manufacturing plant in that community (Dietz et al., 2003). While there is evidence that prevalence of a specified behavior facilitates a contagion effect, there is a gap in the literature relating the importance of this factor in predicting contagion compared with individual and interpersonal determinants.

Although the management literature has devoted limited attention to social contagion, existing studies provide some insight into the social or interpersonal nature of the phenomenon. One of the earliest, and often cited, pieces is a reanalysis of social contagion effects in the diffusion of technological innovation. Burt (1987) evaluates data from Coleman, Katz and Menzel's (1966) study of physicians' adoption of a new antibiotic (tetracycline) in the early 1950s. The original work by Coleman and colleagues proposed that professional interactions among physicians resulted in a social contagion in the antibiotic's diffusion. Burt sought to determine the significance with which cohesion and structural equivalence affected contagion. Cohesion emphasizes the socialization and interaction between individuals; the more frequent and empathic the communication is between individuals, the more likely they will adopt each other's behavior, attitudes and beliefs. This notion is grounded in the work of Blau (1977) and Homans (1950) and asserts that similarity breeds attraction and interaction breeds similarity. In Burt's study, the behavior of interest is physician adoption of tetracycline. Structural equivalence is focused on those individuals who occupy the same position in the social structure, tend to have the same pattern of relations with those in other positions, and as a result may compare themselves with others who occupy that same position. Furthermore, those who are structurally equivalent will have identical relations with all other individuals in a study population. Through reanalysis of the data, Burt (1987) found that when contagion occurred it was through structural equivalence rather than cohesion as suggested by Coleman and colleagues (1966). In other words, Burt contended that contagion occurred because an imitator conformed to the behavior of those to whom the imitator was structurally equivalent (i.e., those who held positions similar to that of the imitator) (Burt,

1987). However, it should be noted that other authors concluded that the contagion effects found in both studies (Burt, 1987; Coleman et al., 1966) were confounded with the contextual effects of marketing efforts and when those were controlled for, contagion effects disappeared (Van den Bulte et al., 2001). This most recent work calls attention to the importance of controlling for appropriate confounds when researching social contagion in innovation diffusion as well as in other domains.

Researchers still struggle to understand the interpersonal determinants of social contagion. Bovasso (1996) used a network analysis of social contagion to evaluate an organizational intervention aimed at promoting a global leadership style to facilitate the merger of three companies. In contrast to earlier findings (Burt, 1987), this study's results indicated that cohesion was a better predictor of contagion than was structural equivalence. Specifically, contagion due to cohesive interaction offered a better explanation of subjects' self-perceptions after the merger than contagion as a consequence of structural equivalence (Bovasso, 1996). To explain the difference between these two studies, Bovasso theorized that the significance of cohesion and structural equivalence may fluctuate with the level of structural integration in the social system in which the contagious effect occurs. In a densely integrated social system, cohesion may be more necessary for contagion. In a system where members primarily have indirect contact through intermediaries structural equivalence may be a more important factor in the emergence of a contagious effect.

Although the comparative significance of cohesion and structural equivalence in predicting contagion is unclear, researchers continue in their attempts to understand these relationships. Brass, Butterfield, and Skaggs (1998) proposed that organizational context

is an explanation for the conflicting results concerning the role of cohesion versus structural equivalence in contagion. They contended that equivalence is a better predictor of contagion of attitude in situations where individuals are in competition, such as when employees are vying for promotion. These propositions await empirical support.

Similar to research findings in psychology and sociology, management studies reveal that interfirm characteristics and interactions are significant factors in predicting behavior's contagious effects. For example, one study indicates a social contagion effect is at work among women managers in the financial services industry who seem to adhere to the norm of extremely long work hours in that industry (Brett et al., 2003).

Williamson and Cable (2003) evaluated the top management team (TMT) hiring patterns of *Fortune* 500 firms in social contagion terms. This study found that firms hired TMT members from organizations with which they shared interfirm network ties, and that those hiring patterns were a result of mimetic isomorphism. Williamson and Cable saw in these findings a contagion effect in this hiring process.

Perhaps the best demonstration of the potentially contagious nature of misbehavior in organizations is a study by Robinson & O'Leary-Kelly (1998c). Rather than investigating the effects of community or an entire organization on behavior, this study used the work group as the unit of analysis. The researchers found a positive relationship between the level of antisocial behavior exhibited by a single individual and the level of antisocial behavior engaged in by his or her work group (Robinson et al., 1998c), suggesting contagion effects at the group level. Management research has examined group and community level factors related to the contagion of bad behavior at work, but there is a significant gap in the literature in evaluating the contagious nature of

misbehavior within an entire organization. Although a few studies suggest a contagion effect, none has been positioned to show convincingly that such an effect actually occurs, to establish if organizational misbehavior is "transmitted" from one person to another, or to determine how social information, motivation, group and personality factors may be significant predictors of the spread of misbehavior at work.

## **Interactional Factors**

Although many contagion theorists focus either on individual or group factors as predictors of contagion, several authors theorize that an interactionist model is more appropriate in determining contagion. As noted above, while stopping short of an actual model, Redl emphasized the importance of both the group and individual factors. In particular, he proposed that most contagion events are the result of a cooperation of both the psychology of the group and of the psychology of the individual (Redl, 1949). Similarly, another interactional approach was proposed by Turner and Killian (1957). These authors suggested that contagion is a function of the extent to which a situation is subjectively well defined for an individual. Additionally, they proposed that immunity to social contagion may be associated with the attitude rigidity and motivation intensity of those who do not succumb to a contagion effect (Turner et al., 1957). This implies an interaction between the situation and individual differences based on attitudes and motivation. One may expand the situational construct to include those an individual interacts within a given situation to incorporate the social determinants of social contagion.

Research indicates the importance of a behavioral role model in predicting contagion, particularly contagion of aggressive behavior. One study found that when a

subject was instigated to aggression and also exposed to an aggressive model, the amount of target yielding had no impact on the subject's aggression (Wheeler & Caggiula, 1966). The combination of aggression instigation and exposure to an aggressive model resulted in a greater frequency of subject aggression than that predicted by a simple additive model (Wheeler et al., 1966). Similarly, Levy (1992) focused on the restraint reduction provided by a model or initiator and observed by an initiator, and found that when subjects observed an initiator perform a desired behavior, they experienced less conflict and were more likely to engage in the desired behave themselves. This suggests the presence of internal conflict and a behavior role model are both significant predictors of contagion. The interactional approach is largely unexplored and calls for empirical testing.

# **Summary**

Research has focused primarily on organizational and individual factors as determinants of organizational misbehavior. Specifically, research has evaluated organizational factors such as unethical leadership behavior (Wolfe, 1988) and formal policies that aim to regulate deviance in organizations (Ethics Resource Center, 1994). Other studies have focused on individual level factors such as the Big Five personality factors (Lee, Ashton, & Shin, 2001), negative affectivity (Skarlicki et al., 1999; Spector et al., 1994), and employee attitude (Bolin et al., 2001). In addition, numerous studies have evaluated the relationships among the different types of organizational justice and forms of workplace deviance (Ambrose et al., 2002; Aquino, Galperin, & Bennett, 2004; Aquino et al., 1999; Folger et al., 1996; Greenberg, 1993; Skarlicki et al., 1997).

However, very few researchers have tackled the social determinants of such behavior. The research of Robinson and O'Leary-Kelly (1998c) provides one of the few studies that shed light on the interpersonal predictors of misbehavior at work. Their work found that the extent to which one's workgroup members engaged in antisocial behavior was a significant predictor of an individual's own level of antisocial behavior (Robinson et al., 1998c).

Organizational misbehavior often has a severe and negative impact on the organization in which it occurs, as well as on the organization's members. On an organizational and individual level, the damage it brings can be mild or serious, monetary or emotional or both. Regardless, understanding this phenomenon is important to both organizations and their members. While our understanding of the individual and organizational factors is expanding, there is a significant gap in the literature as to how social factors may facilitate the spread of misbehavior through an organization. To this end, I contend that two questions are of primary importance. First, does organizational misbehavior act as social contagion spreading from one employee to another through social information? Second, how might motivation, group and personality factors affect the strength of the relationship between the social information and the spread of organizational misbehavior?

The construct of central interest in this dissertation is organizational misbehavior (Vardi et al., 1996). I place my emphasis here, rather than on related constructs such as workplace aggression, deviance, or antisocial behavior, for four reasons. First, organizational misbehavior, depending on the subtype, is an *intentional* act but does not require the perpetrator to have a *harmful* intention as in the case of whistle-blowing.

Second, the construct takes a broad approach to deviance from the norm, specifying either organizational or societal norms (rather than focusing purely on organizational norms, as workplace deviance does). Returning to the above example, while whistle-blowing may defy organizational norms it very often is supported by societal norms. Third, organizational misbehavior carries with it a relatively expansive perspective on the target of the harm, stipulating that the target may be the organization, its members, or even organizational outsiders such as customers or vendors. Finally, organizational misbehavior encompasses a broad range of motivations for employees who engage in such behavior, suggesting that the motivation may be either instrumental or normative. These definitions and characteristics are important to a model of contagion in that they encompass a broad range of behavior without judging the intentions and motivations of the perpetrator or specifying their target. This allows my model – presented in the next chapter – to cast a wide net and incorporate a wide variety of behaviors that are of interest to organizations and their managers.

## **CHAPTER III**

## THEORETICAL FRAMEWORK AND HYPOTHESES

In this chapter, I propose a theoretical framework of organizational misbehavior as a social contagion. For the purposes of this dissertation, organizational misbehavior is defined as any intentional act by an organizational member within the organizational context that violates organizational and/or societal norms. I define organizational norms as the beliefs individuals have about how their organization expects them to act and societal norms as the beliefs one holds about how society expects him to act. I include both those terms in the definition in order to capture a wide range of behaviors, and particularly to include those that may become the organizational norm but would be in conflict with societal norms (ie., the behavior typified in the Enron scandal). Although this definition specifies an intentional act, it does not stipulate that the act be intentionally harmful; on the contrary, organizational misbehavior may be intentionally harmful or intentionally beneficial. This dissertation focuses on Vardi and Wiener's (Vardi et al., 1996) types S (behavior intended to benefit the self) and D (behavior that intends to inflict damage on the organization or its members). Evidence suggests that different forms of organizational misbehavior may be predicted by different determinants (Aquino et al., 1999; Bennett, 1998; Peterson, 2002; Robinson et al., 1997; Robinson et al., 1998a; Vardi et al., 1996). Therefore, this dissertation emphasizes those behaviors within closely related behavioral domains.

Social contagion is often characterized as the spread of affect, attitude, or behavior from an initiator to a recipient through social interaction or information where the recipient does not perceive an intentional influence attempt on the part of the initiator. However, my emphasis in this dissertation is on behavior rather than on affect or attitude, and on information rather than interaction. Therefore social contagion in the model presented here focuses solely on social contagion as the *spread of behavior through the social information an imitator has of the behavior of a referent other*.

This chapter is organized in the following way. I begin with an overview of the contagion model of organizational misbehavior. The next section describes social information that may mediate the relationship between the misbehavior of a group and the misbehavior of a focal individual. The next three sections explain the moderators of the relationship between the organizational misbehavior of the group and subsequent misbehavior by an individual group member. (I refer to the individual group member whose behavior is of theoretical and empirical interest in the dissertation as the "focal individual.") In a final section, I summarize the model and discuss why the phenomenon of organizational misbehavior may spread from person to person through an organization.

The complete model is given in Figure 1. The model shows how the organizational misbehavior of the group may work through social information, such as direct observation, indirect knowledge and perceived prevalence of such behaviors, to predict the misbehavior of a focal individual. The top and bottom sections contain motivation, group and personality factors that moderate the relationship between the social information and the focal individual's organizational misbehavior.

As outlined in the review in Chapter 2 of social contagion theory and empiricism, there are several foundational factors in the emergence of contagion effects. The model and corresponding hypotheses that I propose in this chapter incorporate those factors into a framework predicting the emergence of the social contagion effects of organizational misbehavior. The model I propose has its foundation in Redl's (1949) theory of contagion. Redl proposed that four points are necessary for contagion to occur. These points include 1) the imitator feels a strong impulse toward a certain need but also feels pressure from his conscience not to fulfill the impulse, 2) there is a high degree of instability or fluctuation in the imitator's personality balance regarding the area of conflict, 3) there is a similar type of impulse expression in the initiator, and 4) there is an observable acting out of the initiator's impulse that is accompanied by an apparent and complete lack of fear on the part of the initiator (Redl, 1949). While Redl proposes that contagion is equally dependent on the existence of these four conditions, I theorize a different approach. First, my model proposes that contagion works through or is mediated by a focal individual's social information of other's misbehavior such as the direct observation, indirect knowledge, and prevalence of misbehavior of one's work group. Social information in my model is similar to Redl's factors of impulse expression in the initiator and an observable acting out of the initiator without obvious fear in that the observation, knowledge or perceived prevalence of other's misbehavior is indicative of an initiator's impulse expression and acting out. Second, I theorize that an acute conflict within the imitator acts as a moderator of the relationship between the social information and the focal individual's misbehavior. In the model described in the following sections, injustice serves as a potential source of unfulfilled impulse for the

focal individual. The individual may feel unjustly treated by the organization and therefore is more likely to act based on the social information she has of her coworkers' misbehavior. Third, while Redl (1949) theorized that contagion was contingent on an imbalance in one's personality regarding the area of impulse expression, I propose that personality traits (i.e., negative affectivity and honesty-humility), rather than a personality imbalances, act as moderators of the relationship between the social information and the focal individual individual's own misbehavior.

Contagion antecedents are classified in the main as either individual level or group level factors – focused on psychological elements of the individual or group. This is consistent with both theory and empirical research on social contagion (Crandall, 1988; Levy et al., 1993; Polansky et al., 1950; Redl, 1949; Wheeler, 1966; Wheeler et al., 1966). However, inherent in the definition of social contagion are processes of social information and influence. Many contagion researchers have focused on individual, rather than social, factors involved in the contagion process, or have conceptualized social factors as individual or group indicators. The following section describes how a work group's organizational misbehavior may work through social information, such as direct observation, indirect knowledge and perceived prevalence of organizational misbehavior, to result in the transmission of similar behaviors to a focal individual. The sections that follow describe motivational, group and personality factors that are theorized to moderate the relationship between social information and the organizational misbehavior of a focal individual.

## **Social Information**

The linchpin of my approach to social contagion, and of the proposed model, is social information processing theory (Salancik et al., 1978). In this section, I discuss how a work group's organizational misbehavior may lead to social information processing by those individuals who observe or have other knowledge of those behaviors, as well as how a work group's misbehavior may work through this social information to promote the spread of similar behaviors to other individuals in the organization.

Social information is central to the development of contagion. Witnessing or learning of an employee who engages in organizational misbehavior without fear of being caught or reprimanded is a basic ingredient in creating a contagion effect. The pervasiveness of such behavior increases the likelihood that the misbehavior will be picked up by additional members throughout the organization. A primary tenet of contagion theory is that the spread of behavior is conditional on the actions of a model or referent other (Burt, 1987; Crandall, 1988; Levy et al., 1993; Lippitt et al., 1952; Polansky et al., 1950; Redl, 1949; Turner et al., 1957; Wheeler, 1966). In other words, for contagion to occur an imitator or focal individual must have awareness of another individual's behavior. Numerous empirical studies of contagion indicate that perceptions of the prevalence of behavior are essential to the transmission of behavior from one person to another (Boye et al., 1993; Dietz et al., 2003; Jones et al., 2000).

As noted in Chapter 2, Redl (1949) theorized that an initiator's observable acting out, seemingly without apparent fear, is key to the transmission of behavior to a focal individual. In social contagion, the work group's misbehavior may lead to direct observation, indirect knowledge, and perceptions of prevalence of those behaviors by the

other work group members. Taken a step further, this may also suggest to the group that the initiator does not believe he will be caught or punished for his deeds, hence the lack of fear. Organizational misbehavior by one's work group members may often be perceived or noticed by other members of the group. Witnesses may actually observe the behavior or may hear about it from a secondary source such as a coworker, supervisor or subordinate. In some instances, the misbehaving individual may even brag to a coworker about his or her misbehavior. This knowledge gives an individual a sense of the prevalence of misbehavior in the organization. Thus,

H1: The work group's OMB will be positively associated with an individual group member's subsequent direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB.

Social information processing theory suggests that individuals use information from their social environments to adapt their attitudes and behavior to their social environment, to determine what their attitudes and behaviors should be, and to understand expectations concerning future behavior and its consequences (Salancik et al., 1978). This suggests that individuals may behave based on the observed consequences of a coworker's behavior. With the knowledge or awareness of another's misbehavior, an individual may use that social information in determining their own behavior. The following sections outline how social information such as direct observation, indirect knowledge and perceptions of the prevalence of organizational misbehavior may mediate the relationship between the organizational misbehavior of a work group and a focal individual.

Cognitive Visibility. Central to the concept of contagion is the premise that behavior is transmitted among individuals who are aware of the behavior of a referent

other. As noted by Redl (1949), for contagion to occur, the potential imitator witnesses an observable acting out of an initiator's impulse. For instance, an employee sees a coworker surf the Internet for entertainment rather than for work purposes. For organizational misbehavior to spread, potential imitators would need to observe such behavior within their organization. Given the prevalence of misbehavior in the workplace (Boye et al., 1993; Dabney, 1995; Hollinger & Clark, 1982b; Slora, 1989), it is reasonable to assume that employees have ample opportunities to witness other organization members engaging in activities such as taking excessive breaks, verbally abusing subordinates, stealing office supplies, or doing personal business on the organization's time.

Observable organizational misbehavior may become acceptable or even normative to those who witness the acts. Seeing a manager publicly berate a subordinate, particularly without observable consequences, signals to others that the manager's behavior is appropriate and perhaps even commendable (Bandura, 1973). The manager's behavior acts as a model, and witnesses may perceive a reduction in the restraints against similar actions (Wheeler et al., 1966). Should the verbal abuse or humiliation occur repeatedly, the manager's behavior could be perceived as the norm. Seeing no formal or informal sanctions against such behavior, the manager's peers could infer that verbal abuse of subordinates is not only the norm, but also may be necessary to maintain one's position or to be promoted. The witness notes these cues from her social environment and uses the information in determining how she will behave in the workplace.

Individuals compare themselves to those around them and will look to their environment for information on which behaviors are appropriate (Bandura, 1977;

Festinger, 1954; Salancik et al., 1978). Organization members look to coworkers to gauge which behaviors are acceptable and perhaps to how they should behave to advance in the organization (Festinger, 1954). This social comparison and the resulting group norms often explain how employees behave at work, particularly the increasingly long hours many work (Brett et al., 2003; Latane, 2000). Employees observe the behaviors of coworkers in deciding how to behave on the job – not just functional behavior that services organizational goals, but also how to steal from the organization (Boye et al., 1993; Horning, 1970) and even whether to use drugs at work (Dabney, 1995). Social comparison contributes not only to the diffusion of norms but also to their escalation (Latane, 2000). This suggests that when employees engage in organizational misbehavior for which there appears to be no repercussions, their coworkers use this information in the social comparison process of deciding how they, too, will behave at work. In observing unpunished organizational misbehavior, the witnesses of these acts are more likely to view the behavior as normative, if not commendable, and more likely as a result to engage in similar behavior themselves (Friedman, Simons, & Liu, 2003).

It is clear that *direct* observation of a model's behavior is important to the spread of behavioral norms. I argue that *indirect* knowledge of organizational misbehavior also facilitates the contagion effect. Two major social triggers of theft are information social influence (sharing information about theft opportunities), and normative social triggers (conformity pressure to engage in theft) (Greenberg, 1997a). This suggests that while employees may not directly observe the misbehavior of their coworkers, they may be aware of such activities through interaction and communication with those individuals. Both direct observation and indirect knowledge of coworker misbehavior may lead to

further misbehavior among the witnesses or among those who have an awareness that such behavior occurs. Therefore,

H2a: A group member's direct observation of OMB will mediate the relationship between work group OMB and the member's subsequent OMB.

H2b: A group member's indirect knowledge of OMB will mediate the relationship between their work group's OMB and the member's subsequent OMB.

Prevalence of Others' Misbehavior. The pervasiveness of behavior among those with whom one comes in contact is also important to the spread of behavior through an organization. Milgram and colleagues (1969) found that the size of a stimulus crowd had an effect on the response of passersby such that an individual was more likely to join a large group than a small one. For instance, if a large crowd stands around looking up at the sky, a passerby is more likely to join in compared to a similar situation with a significantly smaller crowd. Analogously, an employee who perceives that many coworkers are engaging in organizational misbehavior such as stealing office supplies. intentionally working slow, or verbally abusing subordinates, is more likely to engage in similar acts compared to when fewer organization members model the misbehavior. This notion is grounded in social impact theory (Latane, 1981), which posits that an individual's emotions, traits, habits, and beliefs are changed through interactions with other people and that this process is affected by the number of people influencing them. Through working alongside and interacting with their work group members, employee habits and beliefs change. If individuals perceive many coworkers taking excessive breaks, padding timesheets or submitting exaggerated travel expenses, the employee's habits and beliefs may change as a result. These perceptions are expected to increase the

likelihood that the observer will engage in similar behavior, which then may be emulated by other organizational members. Therefore,

H2c: A group member's perceptions of the prevalence of OMB will mediate the relationship between work group OMB and the member's subsequent OMB.

#### Motivation as a Moderator

In this section, I theorize that individual perceptions regarding injustice moderate the relationship between social information and the likelihood that misbehavior will be transmitted among an organization's members. Motivation to commit a modeled behavior is an important tenet of contagion research (Redl, 1949). The individual attribute discussed here is motivational in nature in the sense that it feeds a need to deviate, act out, or retaliate, which is a significant moderator of a contagion effect.

Contagion theory suggests that one element important to the contagion effect is the existence of acute conflict within the imitator of the potentially contagious behavior (Redl, 1949). Essentially, there is often a need, drive or impulse the imitator feels to engage in a particular behavior but might not otherwise owing to a sense of right or wrong. Organizational misbehavior is, in part, a result of an employee's desire to either harm the organization or its members, or to benefit himself (Robinson et al., 1997; Vardi et al., 1996). For example, acts of workplace deviance are often preceded by some form of provocation that creates or increases a sense of disparity or outrage, or both (Robinson et al., 1997). Thus, in contagion of organizational misbehavior, the desire to harm the organization or its members may result in the conflict within an individual, which is a precursor to social contagion. Feelings of disparity and outrage may give rise to either instrumental or expressive motivations. Instrumental motivation seeks to reconcile the

discomfort by repairing the situation such as through equity restoration or otherwise improving one's current circumstances (Robinson et al., 1997). In this sense, instrumental motivation can be conceptualized as the desire to benefit oneself.

Conversely, expressive motivation reflects a need to vent or express one's emotions of rage or frustration (Robinson et al., 1997) and may indicate a desire to strike back at the organization or its members. Both instrumental and expressive motivation emerge from one's need to engage in some action that addresses the disparity and releases the discomfort or frustration.

Research evidence supports the view that injustice perceptions are precursors to motivation to inflict organizational harm. The impact of justice perceptions on deviant and aggressive behavior at work has been widely studied. There is mounting evidence to suggest that employees engage in deviant behavior as a result of feeling mistreated by their organization (Skarlicki et al., 1997) and as a way of retaliating against or getting even with the organization (Folger et al., 1996; Greenberg et al., 1998; Greenberg et al., 1996; Skarlicki et al., 1997). For some specific behaviors, such as sabotage, injustice perceptions are the best predictors of organizational misbehavior (Ambrose et al., 2002). Employees who feel mistreated by their organizations may feel the need to retaliate or get even, and often in a way that seeks to hurt the organization.

Contagion theorists propose that when contagion occurs an acute conflict often exists within the target where the individual feels a strong impulse toward a certain need but also feels pressure from their conscience not to fulfill the impulse (Redl, 1949; Wheeler, 1966). For those who experience low justice perceptions, these experiences or feelings may create that sense of conflict within themselves. The mistreated employee

may seek to restore equity, retaliate, or aggress against her coworkers, group, or organization – actions that might otherwise be kept in check by her conscience or sense of right and wrong. I argue that if an individual has social information indicating that organizational misbehavior is highly visible and prevalent within the organization, he is more likely to also engage in similar misbehaviors if he feels his organization or its members have treated him unjustly or unfairly. Likewise, one who has similar social information but who perceives that the organization treats her fairly and with respect will have less motivation to engage in misbehavior at work. Her coworkers may pad their travel reimbursement requests, but she feels adequately paid by the organization and valued by her superiors, and therefore has little motivation to engage in behaviors similar to her coworkers. Thus,

H3: The effects of a group member's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB on the individual's subsequent OMB are greater when that individual's justice perceptions are low rather than high.

## **Group Factors as Moderators**

Evidence indicates that social influence in organizations often occurs through cohesion (Burt, 1987; Marsden & Friedkin, 1993). Through cohesion, employees can directly distribute information to referent others, which makes the employee an accessible source of salient and often sought information (Ibarra & Andrews, 1993). Evidence suggests that the more attached an employee is to non-deviant workers, the less likely he or she is to engage in deviant behavior. Cohesion, therefore, may be particularly important to the study of the spread of organizational misbehavior (Hollinger, 1986).

While some have theorized that organizational cohesiveness is predictive of organizational misbehavior (Vardi & Weitz, 2004; Vardi et al., 1996), I propose that cohesiveness at the group level may also play a role in promoting such behavior. This argument is grounded in the notion of groupthink (Janis, 1982).

Prior research evaluated the role of cohesion in predicting contagion, suggesting that cohesion is a mediator (Coleman et al., 1966). I theorized earlier that the transmission of organizational misbehavior is partially a result of social information. Cohesion implicates the closeness and frequency of the interactions that create the social information. Therefore, the cohesion among organizational members may affect the relationship between the information derived from the interactions and the likelihood that organizational misbehavior will spread as a result of the interactions. Empirical evidence supports this relationship. For instance, Crandall (1988) found that a sorority member's binge eating was predicted by the binge eating level of her friends and that as those friendships grew more cohesive, a sorority member's binge eating grew more like those of her friends.

These findings suggest that a greater degree of interactions among group members leads to the escalation of norms concerning coworkers' misbehavior, and the prevalence of such behavior within a work group or organization. A work group's cohesiveness becomes a normative force, signaling the values of the group by highlighting behavior that the group finds acceptable or commendable. When cohesiveness is high, a focal individual is more likely to be aware of a coworker's misbehavior and then to engage in similar behavior himself. This notion is by findings in

contagion research indicating that contagion is more likely to occur when communication possibilities are high between an initiator and an imitator (Polansky et al., 1950).

Accordingly,

H4a: The effects of group member's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB on the individual's subsequent OMB are greater when group cohesion is high rather than low.

Informal Sanctions. Work groups exert significant and expansive influence over their members. Festinger and colleagues note that "the power of a group may be measured by the attractiveness of the group for its members. If a person wants to stay in a group, he will be susceptible to influences coming from the group, and he will be willing to conform to the rules which the group sets up" (Festinger, Schachter, & Back, 1950 p. 91). Individuals may experience tremendous pressure to fit in with their work group, especially if they believe the security of their job depends on it. In an attempt to adhere to the norms of the group and avoid its informal sanctions, employees may emulate the behavior of other group members. For example, research indicates a positive relationship between the level of antisocial behavior exhibited by an individual and the level engaged in by the individual's work group members (Robinson et al., 1998c).

The informal rules, norms or sanctions of the group may support the goals of the organization or they may thwart those goals. Theft is one example of organizational misbehavior that is susceptible to group effects and is often a group-supported activity (Horning, 1970). Despite the fact that it is destructive to the organization, or perhaps *because* it is so, work groups not only support theft but at times encourage it and even sanction those who do not participate (Segal, 2002). Additionally, group norms regulate the items, processes, and parameters for stealing from an employer (Sieh, 1987).

Informal sanctions symbolize the norms and enforce the rules of the work group shaping the behavior of its members. Like cohesion, work group sanctions signal the values of the group: Behavior that is highly valued by the group is more likely to be transmitted among its members (Redl, 1949). The net effect can be informal norms and sanctions of work groups that are more powerful than the formal policies and sanctions of the organization. For example, there is evidence that work group norms often take precedence over administrative guidelines and policies (Dabney, 1995). Similarly, informal sanctions by one's coworkers are better predictors of both property deviance (e.g., theft of equipment or money) and production deviance (e.g., tardiness, slow or sloppy workmanship) than the perceived severity of formal sanctions by organizational management (Hollinger et al., 1982a). These informal sanctions may provide the necessary reduction of restraints that facilitates contagious behavior (Wheeler, 1966). So, for example, when an individual has social information indicating high visibility and prevalence of theft among her coworkers, informal sanctions encouraging theft may increase the likelihood that she will also engage in theft at work. Likewise, if an individual witnesses or has knowledge of her coworker's verbally abuse of another organization member, informal sanctions that punish verbal abuse may decrease the likelihood that she, too, will engage in verbal abuse. It follows that when a focal individual perceives high visibility and prevalence of misbehavior, sanctions imposed by his workgroup may strengthen or weaken the transmission of organizational misbehavior to the target individual. Therefore, I propose:

H4b: The effects group member's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB on the individual's subsequent OMB are greater when that individual perceives low informal sanctions against OMB rather than high informal sanctions against OMB.

# Personality as a Moderator

One determinant of contagion is a high level of instability or fluctuation of the imitator's personality balance in the area of conflict (Redl, 1949). Accordingly, it is reasonable to fathom a role for personality in the transmission of organizational misbehavior. I include two aspects of personality in the model proposed here: affectivity and honesty-humility. First, I include negative affectivity as there is overwhelming evidence of its role in predicting misbehavior in the workplace (Aquino et al., 1999; Douglas et al., 2001; Lee et al., 2002; Skarlicki et al., 1999). Second, I focus on the proposed sixth personality factor (Ashton, Lee, & Son, 2000) of honesty-humility because it seems to be most highly correlated with organizational misbehavior compared to the other personality factors such as conscientiousness, agreeableness, extraversion, emotional stability, and intellect (Lee et al., 2005).

Research has considered the role of affect in predicting workplace deviance, primarily focusing on trait negative affectivity. Negative affectivity is defined as a personality variable that describes the extent to which an individual experiences upsetting emotions such as anger, hostility, fear and anxiety (Watson & Clark, 1984). The evidence suggests that negative affectivity moderates the relationship between antecedents of organizational misbehavior and the occurrence of OMB. For instance, negative affectivity has been found to moderate the relationship between injustice perceptions and deviant behavior (Skarlicki et al., 1999) and the relationship between frustrating job stressors and deviance (Spector et al., 1994). Other research indicates that negative affectivity also has a direct and unique relationship with deviant behavior (Aquino et al., 1999).

Beyond affectivity, recent research has addressed the role of Big 5 personality factors (Barrick et al., 1991) in predicting organizational misbehavior. Lee and colleagues (Lee et al., 2005) used the Big Five factors plus a sixth factor, Honesty-Humility (Ashton et al., 2001), to evaluate the relationship between anti-social behavior and personality traits. The trait of honesty-humility is most often defined using terms such as truthful, fair or just, sincere and loyal (Ashton et al., 2000) and extraversion characterizes those who are sociable, assertive, talkative and active (Barrick et al., 1991). Ashton and Lee (Ashton et al., 2001) found that honesty-humility was the best predictor, among the six personality factors, of both anti-social behavior directed at the organization and its members (Lee et al., 2005).

Personality factors are expected to influence the relationship between how individuals perceive the work environment and their likelihood of engaging in misbehavior at work. White collar criminals are more likely to be less honest and to defy social norms than are white collar non-offenders (Collins & Schmidt, 1993) suggesting that the personality of white collar offenders supports their behavior and that they are less influenced by their surroundings and interactions with others signaling the norms of their environment.

These findings suggest that personality factors moderate the relationship between social information (i.e., direct observation or prevalence of organizational misbehavior) and the spread of organizational misbehavior. Knowledge of others' misbehavior combined with a negative or pessimistic view of the world and lack of honesty may result in a higher likelihood of organizational misbehavior. These personality factors may lay a foundation for misbehavior that is bolstered by the knowledge of widespread and

unpunished misbehavior of others. An individual who has these personality traits, combined with relevant social perceptions about the misbehavior of others, may feel a reduction in the constraints against misbehavior in the workplace which may result in a higher likelihood that they will misbehave at work (Wheeler, 1966). I theorize that an individual who has direct or indirect knowledge of his colleagues' misbehavior, and perceives that those actions are pervasive in the organization, will be less likely to engage in organizational misbehavior if he has a salutary view of his surroundings and is honest. Those high in negative affectivity and low in honesty-humility should be more susceptible to the social information reflective of coworker's misbehavior.

Based on these findings, I theorize that employees who have a positive view of their environment and who have a tendency toward honesty will be less likely to engage in organizational misbehavior even though they have social information that indicates high visibility and prevalence of misbehavior among their coworkers. Personality traits related to affectivity and honesty-humility should render individuals less susceptible to the contagious effects of organizational misbehavior. Thus,

#### Therefore, I propose:

H5a: The effects of a group member's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB on the individual's subsequent OMB are greater when that individual's Negative Affectivity is high rather than low.

H5b: The effects of a group member's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB on the individual's subsequent OMB are greater when that individual's Honesty-Humility is low rather than high.

# **Summary**

The model and propositions developed here are grounded in sociological, social psychological, and management research. Much of the literature related to misbehavior at work focuses on individual level determinants, giving very little attention to the social factors. This dissertation fills a gap in the organizational misbehavior literature by approaching such behavior as a social phenomenon. I propose that a work group's organizational misbehavior works through social information (i.e., awareness and prevalence of misbehavior) to predict a focal individual's misbehavior, while motivation (i.e., injustice), group factors (i.e., cohesion and informal sanctions) and personality (i.e., negative affectivity and honesty/humility) moderate this relationship.

#### **CHAPTER IV**

#### **METHOD**

# Design

To test the model outlined in Chapter 3, I conducted a field study that incorporates a longitudinal approach. Respondents completed surveys at two different points in time, with a span of two to three months between time 1 and time 2. The following sections outline the sample, procedures, and measures of dependent, independent, moderator and control variables.

# **Participants**

I collected data from 214 members of 47 work groups, with each group having at least five members. This group-size threshold serves two purposes. First, targeting groups of five or more allows the study to reach a broad spectrum of respondents without setting unnecessary limitations and thus supporting generalizability. Second, a minimum of five group members allows for a variety of potential interactions and levels of interactions among the group members. With five members, individuals have some choice in whom they choose to interact or seek out for professional or work-related advice. While targeting larger groups would provide respondents with more choice in whom they interact, it would also limit the pool of potential respondents and possibly limit generalizability.

I used organizationally defined boundaries to identify work groups. In other words, the organization specified the employees that comprise a work group, whether based on function or an organizational chart. The main criterion for delineating a work group was that the group members interacted to perform their work tasks. For instance, a financial institution specified that those working at a small branch office constituted one team while the tellers and the loan officers at the main location made up two additional work groups. There were 24 teams of 5 members, 5 groups of 6 members, 3 teams of 7, 5 teams of 8 members, 4 teams of 9, 2 groups of 10 members, 1 group of 11, 12, 14 and 16 group members.

The average participant age was 42 years with a range of 19-75 years. Fifty-three percent of respondents were female, 22% were male, and the remaining 25% preferred not to answer this item. Of those responding, 4% were African-American, less than 1% was Native American, 10% were Hispanic, 83% were Caucasian, and the remaining 2% chose not to respond to this item. Almost 100% of respondents lived in the US, with less than 1% living outside the US.

With respect to education, 49% held a high school diploma or GED, 15% had an Associate's degree or some college, 20% had earned a Bachelor's degree, 7% had some graduate work, 3% held a Master's degree, less than 1% held a Doctoral degree, and 5% did not respond to this item. Since this study uses a survey method, it is important that the respondents have enough education to read and adequately comprehend the survey questions. Understanding the information that the survey is attempting to glean is critical to collecting valid data with which to test the model.

These results suggest that the respondents had a level of education supportive of their being able to read and comprehend the questionnaire items.

Organizations included in the data collection include three banking institutions, a consulting firm, a local government, two insurance companies, a manufacturing plant and a printing company. Participating organizations were drawn from across the US but heavily represented in the South and the Southwest. These organizations were targeted due to their likelihood of utilizing a work group approach and having employees have at least a high school diploma and perhaps some college education. Five organizations were identified through personal acquaintances of the researcher, three were selected from the recruiting list of a small liberal arts university, and one was a referral by another participating organization. See Table 2 for a comparative data of the participating organizations.

#### **Procedures**

I surveyed respondents twice over a three-month period. At Time 1, I administered surveys to 440 potential respondents. Participating organizations identified potential respondents as employees who interact with coworkers in order to perform their job tasks. Two hundred and seventy-four individuals completed the first survey for a response rate of 62%. At Time 2, 226 individuals completed the second survey for a response rate of 82%. Only those who participated in both surveys are included in my analyses for a sample size of 214 (twelve respondents completed the Time 2 survey but not the Time 1 survey). For those teams with fewer than eight members, at least 75% of the team members must have participated in both surveys for the team to be included in the analyses. For teams with eight or more

members, at least 50% of the team must have participated in both Time 1 and Time 2 survey administrations for the team to be included in the analyses. Six teams with 10 respondents (four teams with two respondents and two teams with one respondent) were dropped from analyses due to an unmet threshold for team participation.

At Time 1, respondents completed a survey containing measures of perceptions of their own OMB (for measuring OMB of work group) direct observation of OMB, indirect knowledge of OMB, prevalence of OMB, justice perceptions, work group cohesion, and informal sanctions. The Time 1 survey items are shown in Appendix I. At Time 2, respondents completed a survey containing measures of perceptions of their own OMB, negative affectivity, Honesty-Humility, demographic items, and control variables. The Time 2 survey items appear in Appendix II. Participants completed a hardcopy survey and mailed it back to my home address in a pre-addressed and stamped envelope or they completed a web survey. For the hardcopy administration, I met with the employees to explain the study and answer questions about their participation. All organizations advised their members that the survey could be completed at work or outside of work and that while management was supportive of their participation, they were not required to participate. For the web survey, I sent each potential respondent an email introducing myself and providing an overview of the study with a web link to the survey embedded in the email. Previous research in the measurement equivalence of paperand-pencil questionnaires versus web surveys indicates no significant differences related to survey administration method (Donovan, Drasgow, & Probst, 2000; Stanton, 1998). I phoned or emailed the potential participants a week after initial

administration to remind them of the survey deadline and ask if they have any questions or concerns about participating. I ensured anonymity by using unique codes to match the Time 1 and Time 2 data waves to one another. Respondents provided their birth year and the last four digits of their home phone as the unique codes.

# **Dependent Variable**

The key dependent variable is organizational misbehavior, measured using Bennett and Robinson's (2000) 19-item measure of workplace deviance (12 items for organizationally directed misbehavior and 7 items for interpersonally directed misbehavior). These two dimensions of workplace deviance are validated through previous research (Bennett et al., 2000). Organizationally directed misbehavior (ODM) targets the organization itself while interpersonally directed misbehavior (IDM) refers to behaviors targeted at members of the organization. Measure examples of ODM include "Taken an additional or longer break than is acceptable at your workplace" and "Come in late to work without permission" while examples of IDM include "Acted rudely toward someone at work" and "Publicly embarrassed someone at work."

Although this measure was developed under the terminology of workplace "deviance," it has become the standard measure throughout this behavior domain. It has been used to measure organizational misbehavior (Vardi, 2001) and antisocial behavior (Lee et al., 2005), as well as workplace deviance (Colbert et al., 2004). At Time 1, respondents used a 7-point scale to respond to the items with a stem asking, "How often in the last 6 months have you engaged in the following behaviors?" (1 =

never, 7 = daily). At Time 2, participants responded to the same scale but with a stem asking, "How often in the last 3 months have you engaged in the following behaviors?" The interval for the two-survey administration was set at three months so that the independent and dependent variables are assessed as closely together as possible but with enough time between them to assess a contagion effect. However, base rates for these behaviors are characteristically low (Hulin & Rousseau, 1980). I used the retrospective timeframe to address this issue. Evidence indicates that self-reports are generally accurate (Spector, 1992), including those for undesirable behaviors (Lee, 1993; Ones, Viswesvaran, & Schmidt, 1993). Criticisms of self-report often focus on social desirability bias. However, evidence suggests that self-report data often yield higher estimates of validity than did external measures of undesirable behavior (Ones et al., 1993). This may be because misbehavior often goes undetected, limiting the validity of external measures.

### **Independent Variable**

I measured the organizational misbehavior of the work group using the same items that measure the respondent's OMB. I determined a respondent's work group OMB score by computing the average OMB score for all employees in his or her work group, excluding the focal individual's OMB score (Glomb et al., 2003; Robinson et al., 1998c). This process provides an estimate of work group OMB while avoiding the issue of common method variance inherent in this type of research. Because a group member's current behavior is highly predictive of his future behavior, including the focal member's self-report in the work group OMB would conflate these two factors. One of the contributions of this study is

investigating the effect of the work group's behavior on the subsequent behavior of a group member. Including the focal member's OMB in the calculation of the work group's OMB would undermine the possibility of studying the effects of coworker behavior on the behavior of a focal team member.

#### **Mediator Variables**

To measure *Direct Observation* of OMB, respondents completed the same items that measured their own OMB but the stem of the scale was worded as follows: "How often in the last 6 months have you *directly observed* a coworker engage in the following behaviors?" *Indirect Knowledge* of OMB was measured using the OBM items in the Bennett and Robinson (2000) deviance instrument, but with this question stem: "How often in the last 6 months have you *learned from another person* (a coworker, supervisor, subordinate, customer, or vendor) that someone in the organization engaged in the following behaviors?"

I measured *Prevalence of OMB* using the same items that measured a respondent's own OMB but the stem of the scale was worded as follows: "Across your entire organization, how widespread are the following behaviors?" Respondents used a 7-point scale to indicate how pervasive these behaviors were across their organization with responses ranging from "no one does this" to "everyone does this."

# **Moderator Variables**

I measured *justice perceptions* using Colquitt's (2001) items for procedural (7 items), distributive (4 items) and interactional justice (9 items). Procedural justice is defined as the perceived fairness of the procedures or processes that lead to outcomes

whereas distributive justice refers to the justice of the outcomes themselves (Colquitt, 2001). Interactional justice is defined as the interpersonal treatment individuals perceive through the carrying out of procedures (Bies & Moag, 1986). These measures have been extensively validated and are widely used to measure justice perceptions, including those studied in deviance research (Judge, Scott, & Ilies, 2006). For procedural justice, the scale stem asked "With respect to deciding important outcomes, to what extent do you agree or disagree that your organization's procedures have..." (1= strongly disagree, 7 = strongly agree). Examples of the items include "...been applied consistently?" and "...been free of bias?" For distributive justice, the scale stem inquired "To what extent do you agree or disagree that your outcomes that are controlled by the organization have ... (1 = strongly disagree, 7 =strongly agree). Individual survey items include "...reflected the effort you have put into your work?" and "...been appropriate for the work you have completed?" For interactional justice, the scale stem asked, "With respect to carrying out procedures, to what extent do you agree or disagree that your organization has ..." (1 = strongly disagree, 7 = strongly agree). Examples of the survey items include "treated you with dignity?" and "...treated you with respect?"

Cohesion is the degree at which coworkers are attached or attracted to one another (Hollinger, 1986). I measured *work group cohesion* using Seashore's (1954) measure as referenced in O'Reilly, Caldwell and Barnett (1989). Respondents were asked to what extent they agree or disagree with four statements. An example is "The members of my work group are ready to defend each other from criticism by

outsiders," using a 7-point scale with responses ranging from "strongly disagree" to "strongly agree."

I assessed *informal sanctions* using Hollinger and Clark's (1982a) measure of coworker sanctions of workplace deviance. For each of the OMB items, this measure asked "For each of the following activities, what would the most common reaction of your coworkers be?" with the possible responses being "1=encourage, 2=do nothing, 3=discourage, 4=avoid the person, 5=inform persons in authority."

Negative affectivity is described as the degree to which an individual experiences upsetting emotions such as anger, hostility, fear and anxiety. I evaluated this as a trait variable using the 10 negative affectivity items of the PANAS scale developed by Watson, Clark and Tellegen (1988). This scale is commonly used in the study of workplace deviance (Aquino et al., 1999; Judge et al., 2006).

Honesty-Humility is defined as a trait characterized by truthfulness, fairness and a reluctance to exploit others (Ashton et al., 2000). I measured this factor with the 8-item scale used by Lee, Ashton and Shin (2005) which was based on the scale developed by Hahn, Lee and Son (1999). The stem of the scale asked "How accurately do each of the below adjectives describe your personality?" (1 = very inaccurate, 7 = very accurate). Examples of the adjectives include "Frank" and "Truthful."

## **Control Variables**

Potential control variables included the respondent's age, gender, tenure with the organization, position/job tenure, job status (i.e., full-time, part-time), educational level, and the size of his or her work group. These above factors are the most widely used control variables, particularly in group and organizational misbehavior research (Boye & Jones, 1997; Robinson et al., 1998c).

The age item was open-ended and simply provided a blank for the respondent's age. The gender item asked the respondents to indicate their gender as female, male or "prefer not to answer." To measure organization tenure, the open-ended item asked, "How long have you worked at your present organization?"

Likewise, the position/job tenure measure asked, "How long have you worked in your present job?" I measured job status with the item "Is your job full-time (35 or more hours per week) or part-time (less than 35 hours per week)?" The possible answers included "full-time," "part-time" and "don't know." Respondents indicated their education level by choosing one of the following: "High school diploma,"

"Associate's degree" "Bachelor's degree" "Some graduate work," "Master's degree," "Doctoral degree," or "Other." I measured work group size based on group membership information provided by the organization.

I also measured *organizational sanctions* (perceptions about formal rules and responses of organizational leaders regarding workplace deviance) with items similar to those measuring informal sanctions. The stem for this measure asked, "For each of the following activities, what would the most common reaction of persons in authority be? (1= reward or promote, 2 = do nothing, 3 = reprimand or punish, 4 = fire or dismiss, 5 = inform the police). The survey items were identical to those used to measure informal sanctions, organizational misbehavior and social information of OMB.

Task interdependence is the degree to which group members must coordinate their efforts to perform their workplace duties. Task interdependence is often significant in work group situations and moderates the relationship between a work group's misbehavior and the misbehavior of the group's individual members (Robinson et al., 1998c). I measured task interdependence using Pearce and Gregersen's (1991) 5-item measure of this factor. This scale asked respondents to indicate how much they agreed or disagreed with statements such as "I work closely with others in doing my work" and "I frequently must coordinate my efforts with others."

# **Measurement Summary**

In this data collection, I measure work group cohesion, informal sanctions, and work group size as group level variables and all others (work group misbehavior, social information factors, justice, personality factors, the focal group member's own misbehavior, age, gender, job status, and formal sanctions) as individual level variables. Work group misbehavior, social information factors, justice, work group cohesion, and informal sanctions against misbehavior were measured at Time 1. The focal group member's misbehavior, personality factors (Negative Affectivity and Honesty-Humility), demographic information, and control variables were measured at Time 2.

#### **CHAPTER V**

#### **EMPIRICAL RESULTS**

This chapter investigates the relationships between the independent variables and dependent variables. First, I provide analysis of the study's measures. Second, I justify the aggregation of the group factors of work group cohesion and informal sanctions. Third, I provide the descriptive statistics and correlations among the study's variables. Fourth, I present hierarchical regression analyses to test each hypothesis. Finally, I use hierarchical linear modeling to test the proposed model.

# **Measurement Analysis**

Given the importance and repetitive nature of the misbehavior items (used not only to measure misbehavior but the social information respondents perceived related to the behavior of their colleagues), I used exploratory factor analysis and Cronbach's alpha to test the reliability of the misbehavior measures. For all other measures, only Cronbach's alpha was employed. Exploratory factor analysis was used because previous research indicated that two factors (organizational directed and interpersonally directed misbehavior) would emerge. I employed a principal axis factoring procedure with oblique rotation. To ensure that items represented an underlying factor and only one factor, I used .40 as the minimum cutoff and .10 as the minimum spread between factors (Kim & Mueller, 1978). I eliminated four of the misbehavior items due to lack of

variance (all respondents indicated they "never" engaged in these behaviors) and did not include those items in the analysis ("Falsified a receipt to get reimbursed for more money than you spend on business expenses," "Discussed confidential company information with an unauthorized person," "Used an illegal drug or consumed alcohol on the job," and "Dragged out work in order to get overtime").

Table 3 provides the results of the factor analysis. As with other studies using these measures (Bennett et al., 2000), two factors emerged – one measuring interpersonally directed actions and another capturing organizationally directed behavior. One item did not load cleanly on either factor; therefore, I eliminated it from further analyses ("Taken property from work without permission"). I used these two emerging factors to create index scores for the group, individual, social information, informal sanction and formal sanction variables related to misbehavior. Two scores were created for each variable – one for organizationally directed misbehavior and a second for interpersonally directed misbehavior.

### **Justification of Aggregation**

To determine the propriety of aggregating the group factors, I used two statistics. First, I employ between-group analysis of variance (ANOVA) to verify that there is greater variance between work groups than there is within work groups for each group level variable (Kenny & Judd, 1986). Second, I use  $r_{wg}$  to confirm that the members of each group gave similar responses for their work group on the group factors of cohesion and informal sanctions(James, Demaree, & Wolf, 1984). The ANOVA analyses indicated that there were significant between-group differences for both work group cohesion (F=2.37, p<.001), informal sanctions of organizationally directed misbehavior

(F=1.59, p<.01), and informal sanctions of interpersonally directed misbehavior (F=1.72, p<.01). Using a uniform null distribution, the r<sub>wg</sub> analyses showed a high level of withingroup agreement. James and colleagues (1984) proposed that values above .70 are needed to show that coworkers have developed a shared cognition. The median r<sub>wg</sub>'s for work group cohesion, sanctions against organizationally directed misbehavior, and sanctions against interpersonally directed misbehavior were .83 (minimum = .79, maximum=.97), .83 (minimum= .71, maximum=.96), and .80 (minimum=.76, maximum = .90), respectively. These analyses indicate sufficient between-group variance and within-group agreement to warrant aggregation of the work group cohesion and informal sanction variables.

### **Descriptive Statistics and Analyses**

Table 4 reports the means, standard deviations, and zero-order correlations of the study's variables. Measures of internal consistency reliability using Cronbach's alpha are provided in Table 5. My dependent variables include the Time 2 reports of a focal member's misbehavior, both organizational and interpersonally directed actions. The sample size for the individual members is 214 and for the group level it is 47.

It is important to note several things in inspecting the statistics provided in Table 4. First, the means for the misbehavior variables range between 1.50 and 1.62. These figures are low for a 7-point scale but also expected and standard for research in this domain. The means for the social information of misbehavior were significantly higher than those for self-reports of actual behavior. There are two possible explanations for this differential. The first suggests that respondents perceive a higher level of misbehavior around them than what they engage in on their own. The second possibility

is that respondents underreported their own misbehavior or perceive themselves as engaging in less misbehavior then actually occurs.

Second, the two forms of misbehavior at Time 2 often correlated with different control variables. For instance, ODM was significantly related to formal sanctions whereas IDM was related to age and gender but not to formal sanctions. Also, task interdependence was unexpectedly unrelated to either form of misbehavior.

Third, while interactional and procedural justice were both significantly correlated with both ODM and IDM, distributive justice was not related to either form of misbehavior. This was somewhat unexpected as previous research found significant relationships between distributive justice and various forms of misbehavior (Aquino et al., 1999; Greenberg et al., 1998; Skarlicki et al., 1997). Due to the non-significant relationship between distributive justice and the variables of interest, I eliminated this factor from further analyses.

### **Hypothesis Testing**

Multiple regression testing is the primary method for testing individual hypotheses. Hierarchical regressions were conducted for each of the hypotheses. I examined the demographic, team size, formal sanctions, task interdependence variables to determine which might need to be treated as controls in the analyses. Of these, job status (full-time versus part-time), team size, and formal sanctions against organizationally directed misbehavior (ODM) significantly correlated (p<.05) with a focal team member's organizationally directed misbehavior (ODM) at Time 2; therefore, I treated these factors as controls. Likewise, age, gender, job status, and team size significantly correlated with a focal member's interpersonally directed misbehavior

(IDM) at Time 2 and thus were treated as control variables in testing hypotheses related to interpersonal misbehavior.

I conducted preliminary data screening to insure the data conform to assumptions underlying multivariate analysis. To assess univariate normality, I generated skewness values for all independent and dependent variables. I transformed those with significant skewness values (those above 1.0 or below -1.0), as appropriate, until the resulting skewness values were non-significant.

Since the hypotheses often include group and individual level data as well as interaction terms, multicollinearity was a potential issue in this dataset. Multicollinearity occurs when two regression predictors are highly correlated with one another.

Multicollinearity can make the regression coefficients unstable and hard to interpret (Cohen & Cohen, 1983). Therefore, I centered the independent and dependent variables to reduce multicollinearity (Aiken & West, 1991). To further address issues of multicollinearity or non-independence among the study's variables, I also verified that the variance inflation factor (VIF) was less than 10.0 for each factor in each regression (Kutner, Nachtsheim, Neter, & Li, 2005). The exception to this is in those regressions that include interaction terms. In those equations, a high degree of multicollinearity is expected between the interaction term and the variables used to create the interaction term.

### Hypothesis 1: Work Group's Misbehavior and Social Information

Hypothesis 1 predicts that the work group's OMB will be positively associated with the focal individual's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB. Tables 6 and 7 provide the results for these tests,

with Table 6 showing models predicting ODM, and Table 7 showing models predicting IDM. While controlling for job status, team size and formal sanctions, the work group's ODM at Time 1 was positively correlated with direct observation, indirect knowledge and prevalence of organizationally directed misbehavior at Time 1. Likewise, for interpersonally directed misbehavior, the work group's IDM at Time 1 positively correlated with all of the social information variables at Time 1. Therefore, Hypothesis 1 was fully supported.

#### Hypothesis 2: The Mediating Role of Social Information

Hypothesis 2 proposes that a focal individual's social information of their coworkers' OMB will mediate the relationship between the work group's OMB and the focal individual's subsequent OMB. I used the Baron and Kenny (1986) three-step approach which consists of regressions among the three constructs of interest. As noted in the testing of Hypothesis 1, I found significant relationships between the work group's misbehavior (both organizationally and interpersonally directed) at Time 1 and all three social information variables at Time 1; therefore, one part of three-step mediation testing is fulfilled.

Table 8 provides the results for testing of the mediating effect of social information on the relationship between a work group's ODM at Time 1 and that of a focal individual at Time 2. Step 2 of Table 8 indicates there is a significant relationship between the work group's ODM and that of the target; therefore, a second condition of the three step mediation testing is fulfilled. After controlling for job status, team size and formal sanctions, analyses provided in Steps 3a, 3b and 3c of Table 8 indicate that direct observation, indirect knowledge and prevalence of ODM at Time 1 all partially mediated

the effects of a work group's ODM at Time 1 on a focal individual's likelihood of engaging in organizationally directed misbehavior at Time 2. This is evidenced by the coefficient drop in the work group's ODM at Time 1 and increase in R<sup>2</sup> between Steps 2 and 3 of the mediation testing. Sobel tests conducted to test the significance of the coefficient drop for the work group's ODM at Time 2 indicated that indeed the coefficient decrease was significant (p<.02 for direct observation of ODM; p<.01 for both indirect knowledge and prevalence of ODM) (Sobel, 1982). Step 3d indicates that, among all the social information factors, prevalence of ODM is the dominant factor in mediating the relationship between the work group's ODM and the subsequent ODM of the focal group member.

Turning to IDM, the results shown in Step 2 of Table 9 reveal a significant relationship between the work group's IDM at Time 1 and that of the focal individual at Time 2. Thus, the second condition of mediation testing was met. After controlling for age, gender, job status and team size, direct observation and prevalence of IDM completely mediated the effects of a work group's IDM at Time 1 on a focal individual's interpersonally directed misbehavior at Time 2. Indirect knowledge partially mediated this effect as demonstrated by the decrease in the coefficient for the work group's IDM at Time 1 and increase in R<sup>2</sup> between Steps 2 and 3 of the mediation testing. A Sobel test for the partial mediating effect of indirect knowledge on the relationship between the work group's IDM at Time 1 and that of a focal individual at Time 2 indicated that the drop in the work group coefficient was significant (p<.01). These analyses are shown in Steps 3a, 3b and 3c of Table 9. Step 3d indicates that when all three social information factors are in the model, the effect is the same as for each individual social information

variable. This suggests that the different forms of social information may not exert effects independent of one another. This finding is similar to that for ODM; however, the mediation in ODM was partial whereas full mediation was found for IDM. Based on this testing, I found partial support for Hypothesis 2 for organizationally directed misbehavior and almost full support for interpersonally directed misbehavior.

### Hypothesis 3: Injustice as Moderator

Hypothesis 3 proposes that a focal individual's direct observation, indirect knowledge, and perceptions of the prevalence of OMB at are more likely to mediate the relationship between the work group's OMB and the subsequent OMB of a focal individual when that individual's justice perceptions are low rather than high. Research demonstrates that interactional, procedural and distributive justice are three separate and distinct constructs (Aquino et al., 1999; Skarlicki et al., 1997). Thus, factor analysis was not necessary prior to testing this hypothesis. Also, because distributive justice was not significantly related (p>.05) to a focal individual's OMB at Time 2, that factor was excluded from hypothesis testing.

Since Hypothesis 3 (and the remaining hypotheses) predicts an interaction effect, I tested for moderated mediation. In moderated mediation, the mediating variable interacts with a moderating variable to cause an outcome (Muller, Judd, & Yzerbyt, 2005). In this hypothesis, the social information of OMB interacts with justice perceptions to predict a focal individual's subsequent OMB.

Table 10 shows the first step of the moderated mediation testing for ODM with the work group's ODM and interactional justice being significant. For procedural justice, no significant relationships were found for Step 1 of the moderated mediation process.

However, mediation may still occur without this relationship (Collins, Graham, & Flaherty, 1998; MacKinnon, 2000; Shrout & Bolger, 2002). Collins and colleagues argue that Step 1 of the mediation process is implied if Step 2 (a significant relationship between the initial variable and the mediator) and Step 3 (a significant relationship between the mediator and the outcome variable) are met. This perspective asserts that mediation is a chain reaction that begins with an independent variable that influences a mediating variable which in turn affects an outcome variable (Collins et al., 1998). Because of the growing support for this argument, I continued through every step of the mediation testing.

Tables 11, 12 and 13 show Step 3 for moderated mediation testing for ODM (Step 2 is fulfilled in the testing of Hypothesis 1). There were no significant interactions between the two forms of justice and the three social information variables in models predicting ODM. Therefore, Hypothesis 3 was unsupported for organizationally directed misbehavior.

Table 14 shows the first step of the moderated mediation testing for IDM, with no significant relationships. Following the logic outlined above with respect to the argued necessity of Step 1, I conducted complete moderated mediation analysis for IDM and interactional and procedural justice. Tables 15, 16, and 17 show Step 3 for moderated mediation testing for IDM (Step 2 is fulfilled in the testing of Hypothesis 1). I found significant interactions for interactional justice as a moderator of the relationships between the social information variables at Time 1 and the focal individual's IDM at Time 2. When a focal individual's interactional justice perceptions are high, her direct observation (Table 15), indirect knowledge (Table 16), and perceptions of the prevalence

(Table 17) of IDM at Time 1 are less likely to promote the transmission of the work group's IDM at Time 1 to the focal individual at Time 2. I found no significant interactions for procedural justice. Therefore, Hypothesis 3 was supported for IDM and interactional justice but not for procedural justice. Figures 3a, 3b, and 3c show the moderating effect of interactional justice on the relationships between the social information factors and a focal member's IDM at Time 2. The figures indicate that while the interaction is significant, the actual effect is small.

#### Hypothesis 4: Group Factors as Moderators

Hypotheses 4a and 4b predict that a focal individual's social information of his coworker's OMB is more likely to mediate the relationship between the work group's OMB and the focal team member's subsequent OMB when the focal individual's work group cohesion is high rather than low and when the focal perceives low informal sanctions against OMB. I used hierarchical linear modeling (HLM) to test both Hypotheses 4a and 4b. This method is appropriate for several reasons. First, HLM allows me to use the group level factors (work group cohesion and informal sanctions) to explain variation among the individual team members. Second, this approach also permits testing of main effects and interactions within and between levels in my dataset. Third, HLM recognizes that variables at different hierarchical levels influence one another and may therefore be partially interdependent. Thus the HLM method is in contrast with that of the Ordinary Least Squares approach (Hofmann, 1997). In this dissertation, two levels are studied – the work group level (Level 2) and the individual team member level (Level 1) with the individual team members nested in individual work groups. The multi-level modeling available in HLM analyses explicitly models both

within and between group/dyad variance. It allows researchers to study the influence of macro level units (i.e., work group) on micro level (individual team member) outcomes while maintaining the appropriate level of analysis and avoiding type I or type II errors that can result from aggregation (Bryk & Raudenbush, 1992).

To justify the use of HLM, I estimated null models of the focal individual's misbehavior at Time 2 (one model for ODM and another for IDM). This testing found significant between-groups variance in both forms of misbehavior ( $\chi^2 = 90.43$ , df=46, p<.000 for ODM;  $\chi^2 = 114.64$ , df=46, p<.000 for IDM). In all analyses, all variables were group-mean centered, except for gender which was dummy coded (Hofmann & Gavin. 1998).

**Hypothesis 4a: Cohesion.** Tables 18, 19 and 20 provide the HLM results for the interaction of the social information variables with work cohesion. Significant relationships were found for all three of these interactions; however, the findings were contrary to the stated hypotheses. When cohesion was high, there was a lower likelihood that indirect knowledge and prevalence of ODM at Time 1 would promote the transmission of the work group's ODM at Time 1 to a focal individual at Time 2. For ODM, Hypothesis 4a was unsupported with significant findings in the opposite direction of those hypothesized.

Tables 21, 22 and 23 show the results of hierarchical linear modeling testing for the interaction of the social information variables at Time 1 with work group cohesion for IDM. I found no significant interactions for these relationships. Thus, Hypothesis 4a was unsupported for IDM and cohesion did not moderate the relationship between the social information variables at Time 1 and a focal individual's own IDM at Time 2.

Hypothesis 4b: Informal Sanctions. Hypothesis 4b proposes that a focal individual's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB are more likely to promote the transmission of a work group's OMB when the focal perceives that informal sanctions against OMB are low rather than high. Table 18 shows the results of hierarchical linear modeling testing for the interaction of the direct observation variable at Time 1 with informal sanctions for ODM, and I found a significant interaction for this relationship.

Table 19 shows the results of hierarchical linear modeling testing for the interaction of indirect knowledge of ODM at Time 1 with informal sanctions for ODM. I found no significant interaction for this relationship. Table 20 shows the results of hierarchical linear modeling testing for the interaction of the prevalence of ODM at Time 1 with informal sanctions for ODM. This interaction was significant. These results indicate that if informal sanctions against ODM were low rather than high, the direct knowledge and prevalence of ODM at Time 1 was more likely to promote the spread of the work group's ODM at Time 1 to a focal individual at Time 2. Thus, I found partial support for Hypothesis 4b for ODM. Figures 4a and 4b show the moderating effect of informal sanctions against ODM on the relationships between direct observation and prevalence of ODM and a focal member's ODM at Time 2. The figures indicate that while the interaction is significant, the actual effect is small.

Table 21 shows the results of hierarchical linear modeling testing for the interaction of the direct observation of IDM at Time 1 with informal sanctions against IDM. I found a significant interaction for this relationship. Thus, when informal sanctions against IDM are high, direct observation of IDM at Time 1 is less likely to

promote the spread of a work group's IDM at Time 1 to another member of the group at Time 2. Tables 22 and 23 provide the results of hierarchical linear modeling testing for the interaction of indirect knowledge and prevalence of IDM at Time 1 with informal sanctions for IDM. I found no significant interactions for these two relationships. Based on this testing, I found partial support for Hypothesis 4b for IDM. Figure 5a shows the moderating effect of informal sanctions against IDM on the relationship between direct observation of IDM and a focal member's IDM at Time 2. The figure indicates that while the interaction is significant, the actual effect is small.

#### Hypothesis 5: Personality Factors as Moderators

Hypotheses 5a and 5b predict that a focal individual's social information of OMB is more likely to promote the transmission of a work group's OMB when the focal individual's Negative Affectivity is high rather than low and when the focal individual's Honesty-Humility is low rather than high. In contrast with Hypotheses 4a and 4b, the variables in these hypotheses are at a single level, rather than at multiple levels. Therefore, I tested these hypotheses using the same moderated mediation testing methods employed for Hypothesis 3.

Hypothesis 5a: Negative Affectivity. Hypothesis 5a predicts that a focal individual's direct observation, indirect knowledge, and perceptions of the prevalence of OMB are more likely to promote the transmission of a work group's OMB when the focal individual's Negative Affectivity is high rather than low. Table 24 indicates no significant relationship for Step 1 of the moderated mediation testing for ODM. Further moderated mediation testing indicated no interaction of Negative Affectivity and any of the social information variables for ODM as shown in Tables 25, 26, and 27. For

interpersonally directed misbehavior, the results were the same. No significant interaction resulted in Step1 as shown in Table 28 and complete moderated mediation testing found no significant interactions for the social information variables of IDM and Negative Affectivity. Therefore, Hypothesis 5a was unsupported.

Hypothesis 5b: Honesty/Humility. Hypothesis 5b proposes that a focal individual's direct observation of OMB, indirect knowledge of OMB, and perceptions of the prevalence of OMB are more likely to promote the transmission of a work group's OMB when the focal individual's Honesty-Humility is low rather than high. Table 24 provides the results of Step 1 of the moderated mediation testing and indicates a significant interaction between the work group's ODM and the focal individual's Honesty-Humility. Therefore, Step 1 was fulfilled. Step 3 of the moderated mediation testing showed significant interactions between all the social information variables and Honesty-Humility as noted in Tables 25, 26, and 27. Thus, when a focal individual is high in Honesty-Humility, the social information of ODM is less likely to promote the spread of the work group's ODM to the focal individual. Hypothesis 5b was supported for ODM. Figures 6a, b, and c show the moderating effect of Honesty-Humility on the relationships between the social information factors and a focal member's ODM at Time 2. The figures indicate that while the interaction is significant, the actual effect is small.

For interpersonally directed misbehavior, Step 1 was not significant as shown in Table 28. However, Step 3 of the moderated mediation testing showed significant interactions between Honesty-Humility and all the social information variables for IDM as illustrated in Tables 29, 30 and 31. The direct observation, indirect knowledge and prevalence of IDM is more likely to promote the spread of a work group's IDM to a focal

individual when the focal individual is low in Honesty-Humility. Therefore, Hypothesis 5b was supported for IDM. Overall, I found full support for Hypothesis 5b for both forms of misbehavior. Figures 7a, b, and c show the moderating effect of Honesty-Humility on the relationships between the social information factors and a focal member's IDM at Time 2. The figures indicate that while the interaction is significant, the actual effect is small.

## **Supplemental Analyses**

I conducted two additional sets of analyses. First, I tested the moderating influence of both group factors (work group cohesion and informal sanctions against misbehavior) on the effect of the work group's misbehavior at Time 1 on the social information of OMB at Time 1. Theory indicates that work group cohesion and informal sanctions against misbehavior may affect the degree of social information a focal individual has of her coworkers' OMB. A high level of cohesion among work group members may give each member more opportunity to observe, hear or develop a sense of awareness of the other members' actions. Similarly, informal sanctions against misbehavior may result in a lower degree of social information of OMB because deviant team members may act more covertly in their actions so as not to be sanctioned by their peers for engaging in misbehavior at work. Thus, these analyses constitute Type 1 moderated mediation where the effect of the work group misbehavior at Time 1 on the social information of OMB at Time 1 may differ as a function of the group variables of cohesion and informal sanctions against OMB. The results of these analyses are provided in Tables 32 through 37. The supplemental testing indicates that neither work group cohesion nor informal sanctions are moderators of the relationship between the work

group's misbehavior and the social information a focal individual has of her coworkers' misbehavior.

Second, some might argue that to demonstrate a change in behavior, you must control for past behavior. Thus, I also conducted additional testing to control for the effect of a focal individual's misbehavior at Time 1. Tables 38 through 59 provide these supplemental analyses. These 22 tables are reruns of the analyses presented in Tables 10 through 31, but with the addition of misbehavior at Time 1 to the set of control variables in each model. By and large, these results were similar to those in the original analyses with one exception. Table 48 indicates that in controlling for the focal individual's Time 1 ODM, cohesion did not have a moderating effect on the relationship between the prevalence of ODM at Time 1 and the focal individual's ODM at Time 2.

The rationale for this supplemental analysis is methodological rather than theoretical. While methodologically it may make sense to control for misbehavior at Time 1, I contend that doing so ignores the unique nature of the behavior. For instance, in controlling for Time 1 misbehavior, one must assume that the misbehavior increases at Time 2 in order for any change in behavior to be statistically significant. This is highly unlikely, as misbehavior would be continually increasing (in frequency and perhaps in severity), and with that change would be the likelihood that the individual would be caught and/or reprimanded for his behavior. This issue ultimately devolves to a more fundamental one: controlling for Time 1 requires that the respondent either escalate (mis)behavior between Time 1 and Time 2, or report no misbehavior at Time 1 and then report *some* misbehavior at Time 2. This second scenario seems highly unlikely as well.

#### **CHAPTER VI**

#### **DISCUSSION**

This chapter provides an overview of the study, summarizes the results and discusses their implications. First, I restate the research problem and review the major methods used in this dissertation. Second, I summarize the study's results. Third, I explore theoretical and practical implications of this research, incorporating suggestions for future research directions. Finally, I discuss the limitations of the approach taken in this dissertation.

## **Statement of the Problem**

Growth in organizational misbehavior research has resulted in greater understanding of the antecedents, consequences, and dimensions of this phenomenon. However, few studies have investigated its social predictors. Contagion theory and empirical research have increased in the psychological and sociological literatures since the 1950s. However, the management literature has devoted limited research attention to social contagion (Brett et al., 2003; Burt et al., 1996; Van den Bulte et al., 2001; Williamson et al., 2003). This dissertation extends the management research related to organizational misbehavior and social contagion by evaluating the transmission of misbehavior among organizational members.

I proposed that organizational misbehavior acts as a social contagion and is transmitted among an organization's members. First, I suggested that the likelihood of its transmission is through the social information a focal individual has of the work group's organizational misbehavior. Second, I proposed that motivation (i.e., justice perceptions), group factors (i.e., cohesion and informal sanctions) and personality (i.e., Negative Affectivity and Honesty-Humility) moderate the relationship between the focal individual's social information and his or her own organizational misbehavior.

# **Review of the Study and Findings**

In this dissertation I explored if and how organizational misbehavior may spread among work group members. To answer this question, I used a social information based approach, proposing that misbehavior is spread through the direct observation, indirect knowledge and prevalence that work team members have of their coworkers' misbehavior. Additionally, I proposed that justice perceptions, work group cohesion, informal sanctions, Negative Affectivity and Honesty-Humility all moderate the effect of that information on the transmission of misbehavior.

I collected data from 214 members of 47 work groups, with each group having at least five members. I used organizationally defined boundaries to identify work groups. Respondents were surveyed twice over a three-month period. At Time 1, respondents completed a survey containing measures of perceptions of their own OMB (for measuring OMB of work group) direct observation of OMB, indirect knowledge of OMB, prevalence of OMB, justice perceptions, work group cohesion, and informal sanctions. At Time 2, respondents completed a survey containing measures of perceptions of their

own OMB, Negative Affectivity, Honesty-Humility, demographic items, and control variables.

#### **Summary of Findings**

Quantitative analyses indicate that the mechanism of misbehavior transmission is dependent upon its form. Organizationally directed misbehavior (ODM) targets the organization itself while interpersonally directed misbehavior (IDM) refers to behaviors targeted at members of the organization. Table 60 provides an overview of the hypotheses testing, noting whether each hypothesis was supported, partially supported or unsupported for both ODM and IDM.

First, organizationally directed misbehavior is partially spread through social information in that the relationship between the work group's ODM and the focal individual's ODM was partially mediated by all three forms of social information. The work group's ODM creates social information (direct observation, indirect knowledge and prevalence of these behaviors) that is perceived by other members of the work group. That social information is positively related to the ODM of a focal group member. Second, interpersonally directed misbehavior is spread through direct observation and prevalence of IDM as the IDM of the work group and the focal individual was fully mediated by these two types of social information but not by the indirect knowledge of IDM. Taken together, these findings indicate that the work group's misbehavior creates social information (direct observation, indirect knowledge and prevalence of these behaviors) that is perceived by other members of the work group. That social information is positively related to the misbehavior of a focal group member.

The likelihood of transmission is also contingent upon the type of misbehavior that is potentially spread. First, for ODM the transmission is more likely for focal individuals who perceive low work group cohesion, low informal sanctions and are low in Honesty-Humility. In slight contrast to ODM, the transmission of IDM is more likely for those individuals who not only perceive low informal sanctions and who are low in Honesty-Humility, but who also hold low interactional justice perceptions. These results suggest that the transmission of IDM is more likely than the spread of ODM among individuals who feel mistreated in their organizations. Negative Affectivity had no moderating effect on the relationship between the social information of misbehavior and a focal individual's likelihood of engaging in similar actions. Figures 8 and 9 provide updated models (one for ODM and another for IDM) showing the significant relationships among the study's variables.

The longitudinal nature of this study provided several advantages and contributions to this domain. First, while previous research established a relationship between the work group's misbehavior and that of a focal individual (Robinson et al., 1998c), none of the existing data was collected longitudinally. This study allowed for testing of a causal chain between the misbehavior in a work group and that of a work group member. Second, the longitudinal approach provided a means to study the *mechanism* through which misbehavior spreads.

#### **Implications**

There are both theoretical and practical implications for this study. First, the findings have implications for future research in the fields of both organizational misbehavior and contagion in organizations. Second, the study results provide insight for

organizational leaders and managers as they try to discourage misbehavior in the workplace.

This model contributes to our understanding of the social transmission of organizational behavior in three ways. First, the model of the transmission of organizational misbehavior proposed here attends to the social determinants of these behaviors. Although some scholars have suggested that organizational misbehavior is socially contagious (Robinson et al., 1998a), the factors that may facilitate such transmission have not been theorized or meaningfully tested. In this dissertation, the contagion model considers the social, motivational, group level and personality elements that may cultivate the spread of bad behavior among an organization's employees.

Second, this research extends the broader management literature. The topic of social influence has been widely addressed in the management literature, but only a handful of those studies incorporate the construct of social contagion (Brett et al., 2003; Burt et al., 1996; Van den Bulte et al., 2001; Williamson et al., 2003). For example, Brett & Stroh (2003) found that a social contagion effect is at work among women managers in the financial services industry who appear to hold to the norm of extremely long work hours in that industry. Williamson and Cable (2003) found that firms hired top management team members from organizations with which they shared interfirm network ties, and that those hiring patterns were a result of mimetic isomorphism. Williamson and Cable saw in these findings a contagion effect in the hiring process. Although focused on organizational misbehavior, this dissertation of social contagion in organizations also informs the wider influence literature and is applicable to various

topics where attitudes and behaviors can be thought of as transmissible, such as ethical and organizational citizenship behavior.

Third, this model primarily focuses on social factors that may drive the spread of organizational misbehavior. With its broad focus, the framework I propose provides a larger and perhaps clearer picture of how misbehavior may spread among organizational members. Rather than focusing on individual or organizational level drivers of these actions, the model seeks to clarify how social factors may work to support socially contagious misbehavior.

One of the most significant research implications is the finding that organizational misbehavior is indeed contagious or transmitted among work group members. By using a longitudinal approach, this study established a causal chain between the misbehavior of a work group and that of a work group member. The work group's misbehavior creates social information of that behavior which is perceived by other members of the group who later may engage in similar behavior as a result of direct observation, indirect knowledge, and prevalence perceptions of their coworkers' behaviors. These findings suggest that the social determinants of misbehavior are significant factors in predicting misbehavior and its spread. This finding fills a gap in the misbehavior literature with respect to social predictors of this phenomenon.

This study also emphasizes that different forms of misbehavior have distinguishing predictors. The transmission of organizationally directed misbehavior varies from that of interpersonally directed misbehavior. The study's findings indicate that IDM is an inherently more social phenomenon than is ODM. The relationships between the social information factors and a focal group member's subsequent IDM are

stronger than those for a group member's ODM. Here we learn that IDM is more contagious than is ODM, partly because of the greater social nature of IDM. This study's results suggest that researchers should focus on a specific type or form of misbehavior when developing theory or crafting empirical studies in the domain of workplace deviance.

The significant moderation findings also have important implications for theoretical research. Prior research suggests a direct effect of this model's significant moderators. Justice has significant direct effects on an individual's likelihood of committing acts of sabotage (Ambrose et al., 2002), workplace deviance (Aquino et al., 2004; Aquino et al., 1999), counterproductive work behavior (Fox et al., 2001), and a moderating effect on theft (Greenberg, 1993). Informal sanctions against misbehavior have a direct and greater effect workplace misbehavior than do the perceived severity of formal sanctions by organizational management (Hollinger et al., 1982a). Honesty-Humility has a direct effect on antisocial behavior directed against individuals and that directed against the organization (Lee et al., 2005). Little research has investigated the effects of social determinants on workplace misbehavior. Aquino and colleagues studied the role of social status (Aquino et al., 2004). Hollinger and Clark examined the effect of social controls via informal sanctions(Hollinger et al., 1982a). Beyond expanding our knowledge and understanding of the social factors driving misbehavior, the current study reveals that justice, informal sanctions, and Honesty-Humility also have important moderating effects on those social factors (the social information focal individuals have of their peers' misbehavior) and the focal individual's own likelihood of engaging in similar acts.

For contagion research in the management field, this study has broad implications. The findings presented here indicate that behavior is transmitted through social information created by the behavior of one's coworkers. While previous research investigated contagion effects in industries (Brett et al., 2003) or across organizations (Williamson et al., 2003), this research was at the work group level and allowed me to study the actual mechanism through which contagion may occur. Understanding the *mechanism* through which contagion makes a significant contribution to the management literature for both contagion and misbehavior research. Previously, contagion effects were found in the management literature but the manner in which those effects occurred were not understood. While this study contributed to our understanding of how behavior spreads within a work group, future research should also seek to understand how behavior spreads through the broader organizational structure.

Although this study focused specifically on misbehavior as the construct of interest, my approach could well be applicable to domains such as organizational citizenship and ethical behavior. The social information created by work group members' behavior paired with the informal sanctions perceived by a focal individual may be similarly effective in predicting the spread of more 'positive' behavior.

However, because the contagion effect was slightly different for organizationally directed misbehavior than for that which is interpersonally directed, it is important to apply these findings to new domains with the characteristics of a specific behavior in mind. The results from this study should caution researchers against over generalizing across even a single behavioral domain. Future research should consider the unique dynamics and characteristics of a situation or behavior in building new theory and empirically testing

existing theory. This is particularly true of potential moderators of the effect of social information in transmitting behavior as is demonstrated in the differential moderating effects of justice and cohesion in the spread of ODM versus IDM.

In addition to its theoretical contribution, this research has notable implications for management practice. First, in understanding the mechanism through which misbehavior spreads, organizational leaders and managers can develop processes, policies, and procedures that reduce the level of misbehavior in their organizations. By discouraging the behavior before it starts, organizations can decrease the degree of social information related to those behaviors and limit the spread of the behavior to other employees. Managers can deter misbehavior by ensuring that employees feel fairly treated in the workplace and by creating a culture where coworkers enact their own informal sanctions against misbehavior in their work groups. Organizational leaders may also consider creating a physical work environment where employee actions are highly visible to one's coworkers. If an employee's misbehavior is more likely to be noticed by his coworkers who may then impose informal sanctions against that behavior, the deviant team member may be less likely to engage in the behavior in the first place.

Second, this research has implications for the recruiting and selection process.

This study indicates that social information of misbehavior is more likely to promote the transmission of those behaviors when the focal individual is low in Honesty-Humility.

This finding suggests that organizations should consider using selection tools, such as a personal assessment, that increase the likelihood of hiring individuals who are more honest and forthright. Since the Honesty-Humility factor was fully supported for both forms of misbehavior, using personality testing in the selection process may weed out

those applicants who are more likely to engage in behavior that harms the organization (i.e., submitting false reimbursement receipts), its members (i.e., abusive supervision), or its customers (i.e., overcharging clients and pocketing the difference). Management should act with caution in choosing a selection tool of this nature, placing great importance on selecting a test that is valid, reliable, and will not result in adverse impact (Heneman & Judge, 2003).

Future research should explore the role of managers and organizational leadership in the transmission of misbehavior. The social information created by misbehavior paired with the influence of justice, work group cohesion and informal sanctions have significant effects on the spread of this phenomenon. Managers have a role in influencing these factors; therefore, it is important to understand how supervisors and the organizational hierarchy affect the transmission of misbehavior within an organization. While this study emphasizes the effect of the work group's behavior on that of a focal individual, it is also critical to understand how the behavior of one's supervisor may contribute to the spread of behavior (positive or negative) throughout an organization.

## Limitations

While the contributions and implications of this research are significant, the study's findings should be interpreted in light of its limitations. First, the respondents were willing participants in this study and therefore may not be completely representative of their workplaces. For instance, it is conceivable that those who more frequently engage in misbehavior are less likely to participate in organizational research. In contrast, those who did choose to participate may be of a personality or disposition that makes them less likely to commit acts of workplace deviance. The fact that the

respondent participation was voluntary, anonymous and confidential lends confidence that those who did participate were candid in their responses.

Second, the study could be susceptible to retrospective bias in that the survey asked the respondents to think back over a period in responding to the social information and OMB items. For the social information variable, I would contend that perception may be more important than reality. The perceived level of OMB would be more predictive of a focal individual's behavior than the actual level of workplace misbehavior as some deviance may go undetected (Lee, 1993). Thus, the behavior that a focal individual perceives better predicts their subsequent behavior than does coworker behavior that exist but that is not perceived (perhaps due to covert rather than over behavior by the team member). Evidence indicates that self-reports are generally accurate (Spector, 1992), including those for undesirable behaviors (Lee, 1993; Ones et al., 1993). Criticisms of self-report often focus on social desirability bias. However, evidence suggests that self-report data often yield higher estimates of validity than did external measures of undesirable behavior (Ones et al., 1993). This may be because misbehavior often goes undetected, limiting the validity of external measures.

Third, the study may also be limited by the low base rates for the misbehavior variables. Base rates for this type of behavior are characteristically low (Hulin et al., 1980). The interval for the two-survey administration was set at three months so that the independent and dependent variables are assessed as closely together as possible but with enough time between them to assess a contagion effect. I used the retrospective timeframe to help limit the low base rate issue by asking respondents to think back over a

significant period of time which should allow for recollection of a greater number of misbehavior than a short period of time (i.e., a week).

Fourth, common method bias may be an issue in this study. Using the same medium (a survey) to measure both predictor and criterion variables could result in common method bias. However, Podsakoff and colleagues (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) proposed that temporal separation of the predictor and criterion variables can help limit common method bias. Thus, the longitudinal approach used in this study may alleviate some of that bias by reducing the respondent's ability to use answers from the first survey to answer items on the second survey administered three months later. Social desirability is another potential common method bias for this research. Respondents may be included to respond to accept in a way that they believe is socially acceptable rather than indicating their true feelings or actions. This problem can be addressed through protection of the respondent's anonymity (Podsakoff et al., 2003). Anonymity in responses should make participants less likely to edit their responses in a way they believe might be more socially desirable. In this study, a unique numerical code was given to each respondent to protect his identity and limit social desirability bias. Furthermore, potential participants were assured that their organization would not know whether they chose to participate. These measures, anonymity and confidentiality of participation, should greatly reduce the potential common method biases in this study.

Last, treating the work group OMB factor as an individual-level variable may be an issue in this study. An alternative approach would be to treat it as a group-level variable which would also allow for use of HLM in testing all the hypotheses. HLM recognizes that individuals within a group may be similar to each other and that partial

interdependence among group members may exist. HLM allows researchers to use individual predictors at the group level and group predictors at the group level; therefore, one can model both within and between group variance while studying the group effect on individual level dependent variables and still maintaining an appropriate level of analysis. Thus, treating the work group OMB factor as a group level variable would allow modeling of both forms of variance – a significant issue in investigating the group and individual level effects in predicting the spread of misbehavior at work.

## Conclusion

In conclusion, despite its limitations, this study makes a contribution to both the organizational misbehavior and contagion literatures by lending conceptual and empirical insight into social, motivational, and dispositional explanations for the spread of misbehavior within a work group. New directions for research of misbehavior and work group contagion have been identified. The importance of social determinants in predicting misbehavior has been highlighted. My work here invites future researchers to adopt a theoretical perspective that is contingent on misbehavior type and that incorporates constructs at multiple levels of analysis. With such an approach, there is reason to be optimistic that we can continue to expand our understanding of why employees misbehave and how those behaviors spread within organizations.

Table 1
Terminology and Characterizations in Organizational Misbehavior Domain

Construct	Author(s)	Definition	Intent to Norm Devian		Target of Harm	Motivating Factor(s)
			Harm			
Organizational Misbehavior	Vardi & Wiener (1996)	Any intentional action by members of organizations that violates core organizational and/or societal norms	Type S – Not required Type O – Not required Type D - Required	Required (organizational and/or societal norms)	Organization, its members the work itself, or organizational outsiders (customers)	Type S – Instrumental forces Type O – Normative forces Type D – Instrumental and/or normative forces
Workplace Deviance	Robinson & Bennett (1995)	Voluntary behavior that violates significant organizational norms and in doing so threatens the well-being of the organization, its members, or both	Not required	Required (organizational norms)	Organization or its members	Not specified
Antisocial Behavior	Giacalone & Greenberg (1997)	Any behavior that brings harm, or is intended to bring harm to the organization, its employees, or its stakeholders	Required	Not required	Organization or its members	Not specified
Workplace Aggression	Baron & Neuman (1996);	Efforts by individuals that are intended to harm current or previous coworkers, or their organizations	Required	Not required	Organization, its current or previous members	Injustice perceptions
Organization- Motivated Aggression	O'Leary-Kelly, Griffin & Glew (1996)	Attempted injurious or destructive behavior initiated by either an organizational insider or outsider that is instigated by some factor in the organizational context	Required	Not required	Organization, its members, or organizational outsiders	Organizational instigators such as modeling, aversive treatment, incentive inducements and the physical environment
Organizational	Skarlicki &	Negative behaviors used	Required	Not required	Organization or its	Injustice perceptions

Retaliation	Folger (1997)	to punish the			members	
Behaviors		organization or its				
		members in response to perceived unfairness				
ounterproductive Work Behavior	Fox & Spector (2005)	Volitional acts that harm or intend to harm organizations and their stakeholders	Required	Not required	Organization or its stakeholders	Stress and emotions

Table 2
Comparison of Participating Organizations

Organization	Age	Ethnicity	Gender	Number of Groups
Bank 1	39.36	6.8%Asian	18.2% Male	7
		70.5% Caucasian	56.8% Female	
		22.7% No response	25% No response	
Bank 2	46.86	5.6% Hispanic	9.3% Male	11
		72.2% Caucasian	66.7% Female	
		22.2% No response	24.1% No response	
Bank 3	41.74	7.0% African American	23.3% Male	8
		2.3% Hispanic	72.1 Female	
		86.0% Caucasian	4.7% No response	
		4.7% No response	1	
Insurance Company 1	48.82	11.8% African American	17.6% Male	3
1 3		5.9% Hispanic	52.9% Female	
		52.9% Caucasian	29.4 No response	
		29.4% No response	1	
Insurance Company 2	41.73	25% Hispanic	12.5% Male	2
1 3		50% Caucasian	62.5% Female	
		25% No response	25% No response	
Printing Company	36.83	5.9% African American	17.6% Male	5
		20.6% Hispanic	61.8% Female	
		55.9% Caucasian	20.6% No response	
		17.6% No response	1	
Consulting Firm	42.12	2.3% African American	18.6% Male	6
		2.3% Asian	44.2% Female	
		2.3% Hispanic	37.2% No response	
		53.5% Caucasian	1	
		2.3% Other		
		37.2% No response		
Local Government	42.17	4.3% African American	56.5% Male	4
		4.3% Hispanic	21.7 Female	
		69.6% Caucasian	21.7% No response	
		21.7% No response		
Manufacturing Company	40.78	8.3% Hispanic	66.7% Male	1
Ç 1 3		66.7% Caucasian	8.3% Female	
		25% No response	25% No response	

Table 3
Principal Axis Factor Analysis (Oblimin Rotation)

	Factor L	Loadings
Item	ODM	IDM
Taken property from work without permission	.50	.41
Spent too much time fantasizing or dreaming instead of working	.48	.37
Taken an additional or longer break than is acceptable at your workplace	.72	.30
Come in late to work without permission	.67	.26
Littered your work environment	.62	.36
Neglected to follow your boss's instructions	.68	.38
Intentionally worked slower than you could have worked	.48	.34
Put little effort into your work	.30	.41
Made fun of someone at work	.28	.68
Said something hurtful to someone at work	.29	.78
Made an ethnic, religious, or racial remark at work	.36	.59
Cursed at someone at work	.37	.60
Played a mean prank on someone at work	.37	.80
Acted rudely toward someone at work	.24	.67
Publicly embarrassed someone at work	.36	.77
		·
Eigenvalue	3.38	4.47
Variance explained (%)	20.38	75.80

Note: Numbers in boldface indicate dominant factor loadings.

Table 4
Descriptive Statistics and Correlations

Variable	Mean	Std.	1	2	3	4	5	6	7	8	9	10
		Dev.										
Controls												
1. Age	42.26	12.15										
2. Gender	.71	.45	.06									
3. Org tenure	9.10	7.49		04								
			.49									
			**									
4. Job tenure	6.57	6.96		11	.57**							
			.38									
			**									
5. Job Status	.04	.20	11	19*	.00	01						
6. Education Level	2.00	1.26	03	30**	03	.05	03					
7. Team Size	7.16	2.90	07	24**	.08	.07	.09	.14				
8. Formal Sanctions - ODM	2.68	.43	04	04	02	04	14	.03	.00			
9. Formal Sanctions - IDM	2.70	.41	08	13	06	08	.15*	02	09	.47**		
10. Task Interdependence	6.01	.90	.02	07	.05	.00	03	.00	.07	.01	.06	
Dependent Variables												
11. Individual's ODM (T2)	1.52	.57	07	14	.04	.08	-21**	.13	.20**	18*	16*	01
12. Individual's IDM (T2)	1.60	.70	22**	23**	.03	.10	.29**	.13	.15*	14	14	.07
Independent Variables												
13. Work Group's ODM (T1)	1.50	.42	.09	23**	.08	.16	.25**	.09	.30**	12	15*	.15
14. Work Group's IDM (T1)	1.50	.42	07	25**	.03	.05	.31**	.02	.34**	09	08	.14
Mediator Variables												
15. Direct Observation of ODM	2.20	1.28	04	.05	04	.04	03	06	.09	17*	20*	.12
16. Indirect Knowledge of ODM	2.28	1.27	-05	05	03	.08	.05	06	.11	13	16*	.09
17. Prevalence of ODM	2.23	1.19	05	.00	.04	.06	.01	06	.11	17*		.11
									-		.19	
											**	
18. Direct Observation of IDM	2.10	1.22	13	02	07	02	.14	.02	.12	09	-	.01
											.22	
											**	

19. Indirect Knowledge of IDM	2.42	1.29	07	06	07	.03	.11	.01	.14	08	18*	03
20. Prevalence of IDM	2.25	1.18	11	04	08	.00	.13	.01	.14	09	-	02
											.21	
											**	
Moderator Variables												
21. Interactional Justice	5.50	1.09	10	02	10	09	27**	06	06	.26**	.32**	.14
22. Procedural Justice	4.87	1.18	13	11	01	04	13	.07	.00	.25**	.30**	.10
23. Distributive Justice	4.93	1.50	06	02	06	15	10	.04	.06	.26**	.24**	.13
24. Work Group Cohesion	5.70	1.21	01	05	12	.08	.07	.07	.04	.19*	.19*	.02
25. Informal Sanctions – ODM	3.06	.84	10	01	11	04	07	11	06	.17*	.20**	.07
26. Informal Sanctions – IDM	3.11	.88	.16*	12	06	.13	14	.03	.01	.14	.40**	.05
27. Negative Affectivity	1.74	.80	11	05	05	.05	.06	.13	.21**	10	07	.01
28. Honesty-Humility	5.93	.76	.25**	.24**	.03	.00	21**	.02	07	.14	.02	.06

Note: N=214 team members within 47 teams for each analysis; \*p<.05, \*\*p<.01, \*\*\* p<.001; ODM=organizationally directed misbehavior, IDM=interpersonally directed misbehavior. T1=Time 1 data, T2=Time 2 data. Numbers in parentheses are alphas. Full-time = 0 Part-time = 1; Female=0, Male=1.

Variable	11	12	13	14	15	16	17	18	19	20	21
Controls											
9. Formal Sanctions - IDM											
10. Task Interdependence											
Dependent Variables											
11. Individual's ODM (T2)											
12. Individual's IDM (T2)	.59**										
Independent Variables											
13 Work Group's ODM (T1)	.25**	.26**									
14. Work Group's IDM (T1)	.24**	.30**	.69**								
Mediator Variables											
15. Direct Observation of ODM	.14	.24*	.10	.10							
16. Indirect Knowledge of ODM	.21*	.24**	.16*	.14	.74**						
17. Prevalence of ODM	.19*	.27**	.14	.13	.94**	.92**					
18. Direct Observation of IDM	.21**	.39**	.24**	.29**	.69**	.58**	.69**				
19. Indirect Knowledge of IDM	.22*	.38**	.19**	.23**	.62**	.68**	.70**	.80**			
20. Prevalence of IDM	23*	.41**	.23**	.27**	.69**	.66**	.73**	.94**	.95**		
Moderator Variables											
21. Interactional Justice	24**	28**	20**	11	21**	20*	22**	17*	15	16*	
22. Procedural Justice	18*	20*	18*	06	30**	27**	31**	17*	21**	12*	.73**
23. Distributive Justice	09	10	06	.05	17*	19**	20*	.01	05	01	.60**
24. Work Group Cohesion	08	14	10	07	38**	42**	43**	28**	33**	33**	.30**
25. Informal Sanctions – ODM	13	07	15*	11	02	01	02	13	12	13	.12
26. Informal Sanctions – IDM	06	13	17*	20**	25**	20**	24**	40**	35**	40**	.08
27. Negative Affectivity	.35**	.37**	.22**	.17*	.26**	.19**	.26**	.26**	.19*	.24**	26**
28. Honesty-Humility	31**	31**	22**	27**	21	.00	.00	10	10	10	.06

Note: N=214 team members within 47 teams for each analysis; \*p<.05, \*\*p<.01, \*\*\* p<.001; ODM=organizationally directed misbehavior, IDM=interpersonally directed misbehavior. T1=Time 1 data, T2=Time 2 data. Numbers in parentheses are alphas. Full-time = 0 Part-time = 1; Female=0, Male=1.

Variable	22	23	24	25	26	27
22. Procedural Justice						
23. Distributive Justice	.53**					
24. Work Group Cohesion	.40**	.18*				
25. Informal Sanctions – ODM	.03	09	.04			
26. Informal Sanctions – IDM	.07	08	.11	.50**		
27. Negative Affectivity	23**	16*	24**	.05	.01	
28. Honesty-Humility	.01	.02	.02	.02	.12	15*

Note: N=214 team members within 47 teams for each analysis; \*p<.05, \*\*p<.01, \*\*\* p<.001; ODM=organizationally directed misbehavior, IDM=interpersonally directed misbehavior. T1=Time 1 data, T2=Time 2 data. Numbers in parentheses are alphas. Full-time = 0 Part-time = 1; Female=0, Male=1.

Table 5 Coefficient Alpha Reliabilities

Formal Sanctions - ODM	.88
Formal Sanctions - IDM	.79
Task Interdependence	.86
Individual's ODM (T2)	.76
Individual's IDM (T2)	.81
Work Group's ODM (T1)	.80
Work Group's IDM (T1)	.83
Direct Observation of ODM	.87
Indirect Knowledge of ODM	.88
Prevalence of ODM	.88
Direct Observation of IDM	.89
Indirect Knowledge of IDM	.89
Prevalence of IDM	.89
Interactional Justice	.94
Procedural Justice	.90
Distributive Justice	.97
Work Group Cohesion	.93
Informal Sanctions – ODM	.91
Informal Sanctions – IDM	.92
Negative Affectivity	.88
Honesty-Humility	.74

Note: ODM=organizationally directed misbehavior, IDM=interpersonally directed misbehavior, T1=Time 1, T2=Time 2.

Table 6
Summary of Regression Results for Hypothesis 1 – Organizationally Directed Misbehavior

	DV=Direct Obser	rvation of ODM	DV=Indirect Kno	wledge of ODM	DV=Prevalence of ODM		
	Step 1: Controls	Step 2: Independent Effects	Step 1: Controls	Step 2: Independent Effect	Step 1: Controls	Step 2: Independent Effect	
Controls							
Job status	05	08	02	.00	02	04	
Team size	.07	.04	.12*	.08	.10	.06	
Formal sanctions	26***	24***	24***	22***	27***	25***	
Independent Effect							
T1 Work Group's ODM		.13*		.14*		.15*	
$R^2$	.07	.09	.08	.10	.08	.10	
$\Delta R^2$		.02		.02		.02	
F	5.55**	5.08**	5.92**	5.47***	6.27***	5.87***	

Table 7
Summary of Regression Results for Hypothesis 1 – Interpersonally Directed Misbehavior

	DV=Direct Observation of IDM Step 1: Controls Step 2:		DV=Indirect Kno Step 1: Controls	owledge of IDM Step 2:	DV=Prevalence of IDM Step 1: Controls Step 2:	
		Independent Effects		Independent Effect		Independent Effect
Controls						
Age	11	11	08	08	10	10
Gender	01	.03	06	02	04	.00
Job status	.10	.04	.07	.02	.08	.02
Team size	.08	.01	.11	.05	.10	.03
Independent Effect						
T1 Work Group's IDM		.28***		.21**		.26***
$R^2$	.04	.10	.03	.07	.04	.09
$\Delta R^2$		.06		.04		.05
F	1.78	4.22**	1.66	2.83*	1.82	3.76**

Table 8
Summary of Regression Results for Hypothesis 2 – Organizationally Directed Misbehavior

DV=ODM	Step 1: Controls	Step 2: Main Effect	Step 3a: Mediated Effects – Direct Observation	Step 3b: Mediated Effects – Indirect Knowledge	Step 3c: Mediated Effects - Prevalence	Step 3d: Mediated Effects – All Factors
Controls				O		
Job status	.16*	.13*	.14*	13*	.14*	.13*
Team size	.13*	.09	.08	.07	.07	.07
Formal sanctions	21**	19**	15*	14*	14*	14*
T1 Work Group's ODM		.16*	.14*	.13*	.13*	.12*
Direct Observation of ODM			.17**			78
Indirect Knowledge of ODM				.21**		49
Prevalence of ODM					.21**	.39*
$R^2$	.10	.12	.15	.16	.16	.17
$\Delta R^2$		.02	.03	.04	.04	.05
F	7.57***	7.10***	7.12***	7.82***	7.86***	5.98***

Table 9
Summary of Regression Results for Hypothesis 2 – Interpersonally Directed Misbehavior

DV=IDM	Step 1: Controls	Step 2: Main Effect	Step 3a: Mediated Effects – Direct Observation	Step 3b: Mediated Effects - Indirect Knowledge	Step 3c: Mediated Effects – Prevalence	Step 3d: Mediated Effects – All Factors
Controls				J		
Age	20**	20**	16**	17**	16**	16**
Gender	15*	12	13*	11*	12*	12*
Job status	.23***	.18**	.17*	.18**	.18**	.18**
Team size	.07	.02	.02	.00	.01	.01
T1 Work Group's IDM		.20**	.09	.12*	.10	.10
Direct Observation of IDM			.36***			.03
Indirect Knowledge of IDM				.36***		.00
Prevalence of IDM					.38***	.36*
$R^2$	.15	.18	.30	.30	.32	.29
$\Delta R^2$		.03	.12	.12	.14	.11
F	8.70***	8.61***	13.67***	13.94***	14.72***	10.93***

Table 10 Hypothesis 3 – Mediation Step 1 - Justice Interactions for ODM

DV=ODM	Controls Interaction		nal Justice	<b>Procedural Justice</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Job status	.16*	.10	.12	.12*	.13*
Team size	.13*	.08	.08	.09	.08
Formal sanctions	21**	15*	15*	16*	.16**
T1 Work Group ODM		.14*	14	.15*	16
Interactional Justice (IJ)		16**	15*		
Procedural Justice (PJ)				10	09
Work Group ODM × IJ			.29		
Work Group ODM × PJ					.32
$R^2$	.10	.14	.15	.13	.14
$\Delta R^2$		.04	.01	.03	.01
F	7.62***	6.94***	5.89***	6.17***	5.33***

Table 11
Hypothesis 3 – Mediation Step 3 - Direct Observation and Justice for Predicting ODM

DV=ODM	Controls Interactional J		nal Justice	Procedur	<b>Procedural Justice</b>		
	Step 1	Step 2	Step 3	Step 2	Step 3		
Controls							
Job status	.16*	.11*	.13*	.14*	.15*		
Team size	.13*	.08	.08	.08	.08		
Formal sanctions	21**	12*	12*	13*	14*		
T1 Work Group ODM		.13*	15	.13*	12		
Interactional Justice (IJ) Procedural Justice (PJ)		13*	08	6	01		
Direct Observation of ODM		.14*	.25*	.15*	.23		
Work Group ODM $\times$ IJ Work Group ODM $\times$ PJ			.28		.26		
Direct Observation of ODM × IJ Direct Observation of ODM ×PJ			11		09		
$R^2 \over \Delta R^2$	.10	.16 .06	.17 .01	.15 .05	.15 .00		
F	7.57***	6.63***	5.05***	6.05***	4.62***		

Table 12 Hypothesis 3 – Mediation Step 3 - Indirect Knowledge and Justice for Predicting ODM

DV=ODM	Controls	Controls Interactional Justice		e Procedural Justice		
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
Job status	.13*	.10	.12	.13*	.14*	
Team size	.13*	.07	.07	.07	.07	
Formal sanctions	20**	12*	12*	13*	14*	
T1 Work Group ODM		.12*	14	.13*	18*	
Interactional Justice (IJ)		13*	05*			
Procedural Justice (PJ)				05	06	
Indirect Knowledge of ODM		.18**	.36	.19**	.37*	
Work Group ODM × IJ			.27			
Work Group ODM × PJ					.32	
Indirect Knowledge of ODM × IJ			18			
Indirect Knowledge of ODM ×PJ					19	
$R^2$	.10	.17	.18	.16	.17	
$\Delta R^2$		.07	.01	.06	.01	
F	7.62***	7.16***	5.49***	6.59***	5.14***	

Table 13
Hypothesis 3 – Mediation Step 3 - Prevalence and Justice for Predicting ODM

DV=ODM	Controls Interactional J		nal Justice	Procedui	ocedural Justice		
	Step 1	Step 2	Step 3	Step 2	Step 3		
Controls							
Job status	.16*	.11*	.13*	.14*	.15*		
Team size	.13**	.07	.08	.08	.08		
Formal sanctions	21**	11*	12*	13*	13*		
T1 Work Group ODM		.12*	15	.12*	15		
Interactional Justice (IJ)		12*	02				
Procedural Justice (PJ)				05	.08		
Prevalence of ODM		.18**	.42*	.20**	.40*		
Work Group ODM × IJ			.27*				
Work Group ODM × PJ					.28		
Prevalence of ODM × IJ			24				
Prevalence of ODM ×PJ					22		
$R^2$	.10	.17	.18	.16	.17		
$\Delta R^2$		.07	.01	.06	.01		
F	7.57 ***	7.15***	5.55***	6.60***	5.16***		

Table 14
Hypothesis 3 – Mediation Step 1 - Justice Interactions for IDM

DV=IDM	Controls Interactio		nal Justice	Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	-20**	23***	24***	23***	23***
Gender	15*	13*	13*	14*	14**
Job status	.23***	.12*	.07	.15*	.15
Team size	.07	.00	.00	.01	.01
T1 Work Group IDM		.19**	.65***	.18**	.35
Interactional Justice (IJ)		25***	27***		
Procedural Justice (PJ)				21***	22***
Work Group IDM × IJ			46		
Work Group IDM × PJ					17
$R^2$	.15	.24	.25	.23	.23
$\Delta R^2$		.09	.01	.08	.00
F	8.75***	10.16***	9.09***	9.38***	8.07***

Table 15
Hypothesis 3 – Mediation Step 3 - Direct Observation and Justice Predicting IDM

DV=IDM	Controls Interactiona		nal Justice	Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	20**	-18**	21***	18**	19**
Gender	15*	14*	12*	14*	13*
Job status	.23**	.12*	.08	.15*	.16*
Team size	.07	.00	.02	.01	.02
T1 Work Group IDM		.10	.46	.10	.20
Interactional Justice (IJ)		19**	08		
Procedural Justice (PJ)				14*	07
Direct Observation of IDM		.32***	.62**	.33***	.49**
Work Group IDM × IJ			36		
Work Group IDM × PJ					10
Direct Observation of IDM × IJ			32*		
Direct Observation of IDM ×PJ					18
$R^2$	.15	.33	.35	.32	.32
$\Delta R^2$		.18	.02	.17	.00
F	8.70***	12.70***	9.98***	12.10***	9.72***

Table 16 Hypothesis 3 – Mediation Step 3 - Indirect Knowledge and Justice Predicting IDM

$\mathbf{DV} = \mathbf{IDM}$	Controls Interactiona		nal Justice	Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	20**	20***	21***	19**	20**
Gender	15*	12*	10	12*	11*
Job status	.23***	.13*	.09	.16**	.16*
Team size	.07	01	.01	.00	.01
T1 Work Group IDM		.12*	.50*	.12*	.25
Interactional Justice (IJ)		19**	07		
Procedural Justice (PJ)				13*	06*
Indirect Knowledge of IDM		.33***	.66**	.33***	.46*
Work Group IDM × IJ			38*		
Work Group IDM × PJ					13
Indirect Knowledge of IDM × IJ			36*		
Indirect Knowledge of IDM ×PJ					15
$R^2$	.15	.34	.36	.32	.32
$\Delta R^2$		.19	.02	.17	.01
F	8.75***	13.83***	11.53***	12.75***	9.97***

Table 17
Hypothesis 3 – Mediation Step 3 - Prevalence and Justice Predicting IDM

<b>DV=IDM</b>	Controls	Interaction	nal Justice	Procedur	Procedural Justice		
	Step 1	Step 2	Step 3	Step 2	Step 3		
Controls							
Age	20**	18**	21***	16**	19**		
Gender	15*	13*	10	13*	12*		
Job status	.23***	.13*	.09	.16**	.16**		
Team size	.07	01	.02	.00	.01		
T1 Work Group IDM		.10	.46	.10	.21		
Interactional Justice (IJ)		18**	05				
Procedural Justice (PJ)				13*	04		
Prevalence of IDM		.35***	.70***	.35**	.53**		
Work Group IDM × IJ			36				
Work Group IDM × PJ					11		
Prevalence of IDM × IJ			37*				
Prevalence of IDM ×PJ					19		
$R^2$	.15	.35	.37	.33	.34		
$\Delta R^2$		.20	.02	.18	.02		
F	8.70***	14.35***	12.06***	13.39***	10.53***		

Table 18
Hypothesis 4 - HLM Results for Direct Observation and Group Factors Predicting ODM

DV=ODM	Controls Cohesi		esion	Informal	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
Job status	.28*	.23**	.25**	.22**	.24**	
Team size	.01	.01	.01	.01	.01*	
Formal sanctions	15***	10*	11**	11**	11**	
T1 Work Group ODM		.15*	.16	.01	.94	
Cohesion		.02	.07			
Informal Sanctions				15***	28*	
Direct Observation of ODM		.12*	.40**	.11*	.37**	
Work Group ODM × Cohesion			01			
Work Group ODM × Informal Sanctions					.17*	
Direct Observation of ODM × Cohesion			02*			
Direct Observation of ODM × Informal Sanctions					03*	

Table 19
Hypothesis 4 – HLM Results for Indirect Knowledge and Group Factors Predicting ODM

DV=ODM	Controls	Coh	esion	Informal	Sanctions
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Job status	.28*	.16*	.15*	.16**	.20***
Team size	.01	.00	.00	.00	.01
Formal sanctions	15***	11**	12**	11**	10**
T1 Work Group ODM		.11	.23	.02	46
Cohesion		.00	.08		
Informal Sanctions				16***	20
Indirect Knowledge of ODM		.13*	.41**	.11*	.36*
Work Group ODM × Cohesion			02		
Work Group ODM × Informal Sanctions					.09
Indirect Knowledge of ODM × Cohesion			02*		
Indirect Knowledge of ODM × Informal Sanctions					03

Table 20 Hypothesis 4 - HLM Results for Prevalence and Group Factors Predicting ODM

DV=ODM	Controls Cohe		esion	Informal	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
Job status	.28*	.21**	.21**	.22**	.21**	
Team size	.01	.01	.01	.01	.01	
Formal sanctions	15***	11**	12**	10**	10**	
T1 Work Group ODM		.11	.10	.02	83	
Cohesion		.01	.08			
Informal Sanctions				14**	22	
Prevalence of ODM		.16**	.54***	.14**	.49***	
Work Group ODM × Cohesion			.00			
Work Group ODM × Informal Sanctions					.15	
Prevalence of ODM × Cohesion			03**			
Prevalence of ODM × Informal Sanctions					04**	

Table 21
Hypothesis 4 - HLM Results for Direct Observation and Group Factors Predicting IDM

DV=IDM	Controls	Cohesion		<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	01**	01**	01***	01**	01**
Gender	11*	11*	11*	11*	10*
Job status	.35*	.21	.22	.19	.23
Team size	.00	.01	.00	.00	.00
T1 Work Group IDM		.03	.30	.02	.47
Cohesion		04	.02		
Informal Sanctions				06	.13
Direct Observation of IDM		.27***	.26***	.27***	.54***
Work Group IDM × Cohesion Work Group IDM × Informal Sanctions			03		08
Direct Observation of IDM × Cohesion			.00		
Direct Observation of IDM × Informal Sanctions					04*

Table 22 Hypothesis 4 - HLM Results for Indirect Knowledge and Group Factors Predicting IDM

DV=IDM	Controls	Cohesion		<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	01**	01***	01**	01**	01***
Gender	11*	09	09	09	09
Job status	.35*	.22	.21	.21	.24
Team size	.00	.00	.00	.00	.00
T1 Work Group IDM		.02	.17	.00	.32
Cohesion		04	.00		
Informal Sanctions				07*	.05
Indirect Knowledge of IDM		.26***	.32*	.25***	.41**
Work Group IDM × Cohesion			02		
Work Group IDM × Informal Sanctions					05
Indirect Knowledge of IDM × Cohesion			02		
Indirect Knowledge of IDM × Informal Sanctions					02

Table 23
Hypothesis 4 - HLM Results for Prevalence and Group Factors Predicting IDM

DV=IDM	Controls	Cohesion		<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	01**	01**	01**	01**	01**
Gender	11*	10	08	10	09
Job status	.35*	.21	.27	.20	.25
Team size	.00	.00	.00	.00	.00
T1 Work Group IDM		.00	.23	.00	.38
Cohesion		04	.05		
Informal Sanctions				06	.12
Prevalence of IDM		.30***	.39*	.30***	.55***
Work Group IDM × Cohesion Work Group IDM × Informal Sanctions			02		06
Work Group IDIN / Informati Statetions					.00
Prevalence of IDM × Cohesion			01		
Prevalence of IDM × Informal Sanctions					03

Table 24
Hypothesis 5 – Mediation Step 1 - Personality Interactions Predicting ODM

DV=ODM		Negative A	Affectivity	<b>Honesty-humility</b>		
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
Job status	.21**	.17**	.16**	.15**	.13*	
Team size	.11*	.04	.04	.07	.07	
Formal sanctions	22***	15**	16**	18**	18**	
T1 Work Group ODM		.10	.10	.13*	1.06*	
Negative Affectivity		.31***	.31***			
Honesty-humility				22***	23**	
Work Group ODM × Negative Affectivity			.07			
Work Group ODM × Honesty-humility					-93*	
$R^2$	.12	.23	.24	.19	.20	
$\Delta R^2$		.12	.01	.08	.01	
F	10.38***	13.26***	11.30***	10.25***	9.18***	

Table 25
Hypothesis4 5b – Mediation Step 3 - Direct Observation and Personality Predicting ODM

DV=ODM	Controls	Negative .	Affectivity	<b>Honesty-humility</b>		
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
Job status	.16**	.12*	.13*	.11*	.10	
Team size	.13*	.05	.05	.07	.09	
Formal sanctions	21**	13*	14*	13*	13*	
T1 Work Group ODM		.10	.10	.12*	.62	
Negative Affectivity		.29***	.25*			
Honesty-humility				21***	06	
Direct Observation of ODM		.08	.05	.16**	.77**	
Work Group ODM × Negative Affectivity			.08			
Work Group ODM × Honesty-humility					54	
Direct Observation of ODM × Negative Affectivity			.06			
Direct Observation of ODM × Honesty-humility					64**	
$R^2$	.10	.21	.22	.19	.22	
$\Delta R^2$		.12	.01	.09	.03	
F	6.90***	9.39***	7.22***	7.97***	7.32***	

Table 26
Hypothesis 5 – Mediation Step 3 - Indirect Knowledge and Personality Predicting ODM

DV=ODM	Controls	<b>Negative Affectivity</b>		<b>Honesty-humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Job status	.16*	.12*	.12*	.10	.08
Team size	.13*	.04	.04	.06	.07
Formal sanctions	21**	12*	13*	12*	13*
T1 Work Group ODM		.09	.09	.11	.62
Negative Affectivity		.28***	.25**		
Honesty-humility				21***	11
Indirect Knowledge of ODM		.14*	.12	.20**	.63**
Work Group ODM × Negative Affectivity			.07		
Work Group ODM × Honesty-humility					52
Indirect Knowledge of ODM × Negative Affectivity			.04		
Indirect Knowledge of ODM × Honesty-humility					46*
$R^2$	.09	.22	.23	.20	.23
$\Delta R^2$		.13	.01	.11	.03
F	7.62***	9.98***	7.63***	8.72***	7.51***

Table 27
Hypothesis4 5b – Mediation Step 3 - Prevalence and Personality Predicting ODM

DV=ODM	Controls	Negative Affectivity		<b>Honesty-humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Job status	.15**	.12	.12*	.11*	.09
Team size	.13*	.05	.05	.07	.08
Formal sanctions	21**	12*	13*	12*	12*
T1 Work Group ODM		.09	.09	.10	.52
Negative Affectivity		.27***	.24*		
Honesty-humility				21***	05
Prevalence of ODM		.12*	.10	.20**	.80***
Work Group ODM × Negative Affectivity			.07		
Work Group ODM × Honesty-humility					44
Prevalence of ODM × Negative Affectivity			.05		
Prevalence of ODM × Honesty-humility					64**
$R^2$	.10	.22	.23	.20	.24
$\Delta R^2$		.12	.01	.20	.00
F	7.57***	9.77***	7.50***	8.66***	8.01***

Table 28 Hypothesis 5 – Mediation Step 1 - Personality Interactions Predicting IDM

DV=IDM		Negative A	Affectivity	Honesty-	-humility
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	19**	16**	15**	14*	13*
Gender	14*	13*	12*	09	09
Job status	.25***	.18**	.17**	.18**	.17**
Team size	.07	04	03	.03	.03
T1 Work Group IDM		.14*	.14*	.15*	.71
Negative Affectivity		.34***	.35***		
Honesty-humility				21**	22**
Work Group IDM × Negative Affectivity			.08		
Work Group IDM × Honesty-humility					57
$R^2$	.16	.30	.30	.22	.23
$\Delta R^2$		.14	.00	.06	.01
F	9.45***	14.08***	12.39***	9.72***	8.54***

Table 29
Hypothesis 5 – Mediation Step 3 - Direct Observation and Personality Predicting IDM

DV=IDM		<b>Negative Affectivity</b>		<b>Honesty-humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	20**	14**	13**	12*	13*
Gender	15*	13*	12*	10	10
Job status	.23***	.16**	.15*	.16*	.16**
Team size	.07	03	02	.02	.05
T1 Work Group IDM		.07	.05	.06	.68
Negative Affectivity Honesty-humility		.27***	.27**	18**	02
Direct Observation of IDM		.29***	.31**	.35***	1.02***
Work Group IDM × Negative Affectivity Work Group IDM × Honesty-humility			.13*	.33 · · ·	64
Direct Observation of IDM × Negative Affectivity Direct Observation of IDM × Honesty-humility			.00		69**
$R^2$	.15	.36	.38	.33	.37
$\Delta R^2$		.21	.02	.18	.04
F	8.70***	15.35***	12.66***	13.22***	12.05***

Table 30 Hypothesis 5 – Mediation Step 3 - Indirect Knowledge and Personality Predicting IDM

DV=IDM		<b>Negative Affectivity</b>		<b>Honesty-humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	20**	15**	14**	13*	14*
Gender	15**	11*	11*	08	07
Job status	.23**	.17**	.16**	.17**	.17**
Team size	.07	04	04	.01	.03
T1 Work Group IDM		.09	.08	.08	.49
Negative Affectivity		.28***	.23**		
Honesty-humility				17**	06*
Indirect Knowledge of IDM		.30***	.25**	.35***	.79**
Work Group IDM × Negative Affectivity			.11*		
Work Group IDM × Honesty-humility					41
Indirect Knowledge of IDM × Negative Affectivity			.08		
Indirect Knowledge of IDM × Honesty-humility					47*
$R^2$	.15	.37	.38	.33	.35
$\Delta R^2$		.22	.01	.18	.02
F	8.75***	16.01***	13.00***	13.33***	11.18***

Table 31
Hypothesis 5 – Mediation Step 3 - Prevalence and Personality Predicting IDM

DV=IDM		<b>Negative Affectivity</b>		<b>Honesty-humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
Age	20*	14**	13*	12*	13*
Gender	15	12*	11*	09	08
Job status	.23**	.17**	.16**	.16**	.17**
Team size	.07	03	03	.02	.04
T1 Work Group IDM		.08	.06	.06	.55
Negative Affectivity		.26***	.25**		
Honesty-humility				17**	.00
Prevalence of IDM		.32***	.30**	.37***	.98***
Work Group IDM × Negative Affectivity			.12*		
Work Group IDM × Honesty-humility					50
Prevalence of IDM × Negative Affectivity			.04		
Prevalence of IDM × Honesty-humility					63**
$R^2$	.15	.38	.39	.34	.37
$\Delta R^2$		.28	.00	.19	.03
F	8.70***	16.33***	13.34***	14.02***	12.37***

Table 32
Supplemental - Hypothesis 4 -Direct Observation and Group Factors Predicting ODM

DV=ODM	Controls Cohesion		<b>Informal Sanctions</b>				
	Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4
Controls							
Job status	.28*	.31**	.31**	.23**	.32**	.32**	.24***
Team size	.01	.01	.01	.01	.01	.01	.01
Formal sanctions	15***	14***	15***	10*	13***	13**	09*
T1 Work Group ODM		.20**	.29	.21	.10	25	58
Cohesion		.02	.03	.04			
Informal Sanctions					14***	23	30*
Work Group ODM × Cohesion			01	01			
Work Group ODM × Informal Sanctions						.07	.12
Direct Observation of ODM				.12*			.10*

Table 33
Supplemental - Hypothesis 4 - Indirect Knowledge and Group Factors Predicting ODM

DV=ODM	Controls Cohesion			<b>Informal Sanctions</b>			
	Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4
Controls							
Job status	.28*	.31**	.31**	.20**	.32**	.32**	.22***
Team size	.01	.01	.01	.01	.01	.01	.01
Formal sanctions	15***	14***	15***	10*	13***	13**	09*
T1 Work Group ODM		.20**	.29	.24	.10	25	41
Cohesion		.02	.03	.05			
Informal Sanctions					14***	23	25
Work Group ODM × Cohesion			01	01			
Work Group ODM × Informal Sanctions						.07	.08
Indirect Knowledge of ODM				.14*			.12*
maneet Knowledge of ODM				.17			.12

Table 34 Supplemental - Hypothesis 4 - Prevalence and Group Factors Predicting ODM

DV=ODM	Controls Cohesion			<b>Informal Sanctions</b>			
	Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4
Controls							
Job status	.28*	.31**	.31**	.22**	.32**	.32**	.23***
Team size	.01	.01	.01	.01	.01	.01	.01
Formal sanctions	15***	14***	15***	09*	13***	13**	09*
T1 Work Group ODM		.20**	.29	.19	.10	25	60
Cohesion		.02	.03	.04			
Informal Sanctions					14***	23	30*
Work Group ODM × Cohesion			01	.00			
Work Group ODM × Informal Sanctions						.07	.12
Prevalence of ODM				.15**			.13*

Table 35
Supplemental - Hypothesis 4 - Direct Observation and Group Factors Predicting IDM

DV=IDM	Controls	Cohesion			<b>Informal Sanctions</b>			
	Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4	
Controls								
Age	01**	.00	.00	.00	.00	.00	.00	
Gender	11*	.00	.00	.00	.00	.00	.00	
Job status	.35*	.41	.36	.24	.38	.35	.28	
Team size	.00	.01	.00	.00	.01	.00	.00	
T1 Work Group IDM		.21*	.30	.42	.16	1.20*	.58	
Cohesion		05	03	.05				
Informal Sanctions					13*	.18	.07	
Work Group IDM × Cohesion			01	03				
Work Group IDM × Informal Sanctions						50*	10	
Direct Observation of IDM				.28***			.26***	

Table 36
Supplemental - Hypothesis 4 - Indirect Knowledge and Group Factors Predicting IDM

	<b>DV=IDM</b>		Cohesion			<b>Informal Sanctions</b>			
		Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4	
Controls									
Age		01**	.00	.00	.00	.00	.00	.00	
Gender		11*	.00	.00	.00	.00	.00	.00	
Job statu	IS	.35*	.41	.36	.28	.38	.35	.34	
Team siz	ze	.00	.01	.00	.00	.01	.00	.00	
T1 Work Gro	oup IDM		.21*	.30	.63	.16	1.20*	.54	
Cohesion			05	03	.08				
Informal San	ections					13*	.18	.05	
Work Group	IDM × Cohesion			01	05				
	IDM × Informal						20*	07	
Indirect Knov	wledge of IDM				.27***			.25***	

Table 37
Supplemental - Hypothesis 4 - Prevalence and Group Factors Predicting IDM

DV=IDM	Controls	Cohesion			<b>Informal Sanctions</b>			
	Step 1	Step 2	Step 3	Step 4	Step 2	Step 3	Step 4	
Controls								
Age	01**	.00	.00	.00	.00	.00	.00	
Gender	11*	.00	.00	.00	.00	.00	.00	
Job status	.35*	.41	.36	.26	.38	.35	.31	
Team size	.00	.01	.00	.00	.01	.00	.00	
T1 Work Group IDM		.21*	.30	.56	.16	1.20*	.51	
Cohesion		05	03	.08	13*			
Informal Sanctions						.17	.05	
Work Group IDM × Cohesion			01	05				
Work Group IDM × Informal Sanctions						20*	07	
Prevalence of IDM				.31***			.29***	

Table 38
Supplemental - Hypothesis 3 – Mediation Step 1 - Justice Interactions for ODM

DV=ODM	Controls	Controls Interactional		Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.42***	.42***	.43***	.42***
Job status	.15**	.11*	.14*	.13*	.14*
Team size	.01	.07	.07	.07	.07
Formal sanctions	12*	09	09	10	.10*
T1 Work Group ODM		.10*	33	.10	18
Interactional Justice (IJ)		11*	09		
Procedural Justice (PJ)				03	02
Work Group ODM × IJ			.42*		
Work Group ODM × PJ					.29
$R^2$	.28	.30	.31	.29	.60
$\Delta R^2$		.02	.01	.01	.01
F	20.36***	14.69***	12.91***	14.09***	12.24***

Table 39
Supplemental - Hypothesis 3 – Mediation Step 3 - Direct Observation and Justice Predicting ODM

DV=ODM	Controls	<b>Interactional Justice</b>		Procedural Jus		
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
T1 ODM	.44***	.46***	.47***	.46***	.46***	
Job status	.15**	.10	.13*	.12*	.13*	
Team size	.09	.07	.07	.07	.07	
Formal sanctions	12*	10	10	11*	11*	
T1 Work Group ODM		.10	36	.10	22	
Interactional Justice (IJ)		12*	06			
Procedural Justice (PJ)				04	.01	
Direct Observation of ODM		.08	.02	.07	.00	
Work Group ODM × IJ			.46		.34	
Work Group ODM × PJ						
Direct Observation of ODM × IJ Direct Observation of ODM ×PJ			11		08	
$R^2$	.28	.31	.31	.30	.30	
$\Delta R^2$		.03	.00	.02	.00	
F	20.36***	12.80***	10.24***	12.20***	9.65***	

Table 40
Supplemental - Hypothesis 3 – Mediation Step 3 - Indirect Knowledge and Justice for Predicting ODM

DV=ODM	Controls	Controls Interactional.		Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.41***	.42***	.42***	.41***
Job status	.15**	.11*	.13*	.13*	.14*
Team size	.09	.07	.07	.07	.07
Formal sanctions	12**	08	09	10	11*
T1 Work Group ODM		.09	34	.10	21
Interactional Justice (IJ)		10	03		
Procedural Justice (PJ)				02	05
Indirect Knowledge of ODM		.01	.17	.02	.15
Work Group ODM × IJ			.44		
Work Group ODM × PJ					.32
Indirect Knowledge of ODM × IJ			17		
Indirect Knowledge of ODM ×PJ					13
$R^2$	.28	.30	.31	.29	.30
$\Delta R^2$		.02	.01	.01	.01
F	20.36***	12.54***	10.04***	12.04***	9.51***

Table 41
Supplemental - Hypothesis 3 – Mediation Step 3 - Prevalence and Justice Predicting ODM

DV=ODM	Controls	Controls Interactional		Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.43***	.44***	.43***	.43***
Job status	.15**	.10*	.13*	.13*	.14*
Team size	.09	.07	.08	.07	.07
Formal sanctions	12*	09	09	10	11*
T1 Work Group ODM		.11	36	.10	22
Interactional Justice (IJ)		11*	.00		
Procedural Justice (PJ)				03	.08
Prevalence of ODM		.03	.20	.01	.17
Work Group ODM × IJ			.45		
Work Group ODM × PJ					.33
Prevalence of ODM × IJ			24		
Prevalence of ODM ×PJ					19
$R^2$	.28	.30	.31	.29	.30
$\Delta R^2$		.02	.01	.01	.01
F	.20.36***	12.56***	10.18***	12.02***	9.59***

Table 42 Supplemental - Hypothesis 3 – Mediation Step 1 - Justice Interactions for IDM

DV=IDM	<b>Controls</b> Interactiona		nal Justice	<b>Procedural Justice</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.56***	.51***	.51***	.52***	.52***
Age	08	10*	11*	10*	11*
Gender	10	10*	09	10	10*
Job status	.13*	.08	.05	.09	.19
Team size	.01	02	02	02	01
T1 Work Group IDM		.10	.38	.09	.23
Interactional Justice (IJ)		12*	13*		
Procedural Justice (PJ)				11*	12*
Work Group IDM × IJ			28		
Work Group IDM × PJ					14
$R^2$	.43	.45	.45	.45	.45
$\Delta R^2$		.02	.00	.02	.00
F	28.52***	21.78***	19.20***	21.71***	18.97***

Table 43
Supplemental - Hypothesis 3 – Mediation Step 3 - Direct Observation and Justice Predicting IDM

DV=IDM	Controls	Controls Interactional		Procedur	al Justice
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.56***	.54***	.56***	.56***	.61***
Age	08	-10*	13*	10*	11*
Gender	10*	09	07	10*	07
Job status	.13*	.08	.06	.09	.11*
Team size	.01	02	.00	02	.00
T1 Work Group IDM		.10	.19	.10	.05
Interactional Justice (IJ)		12*	.07		
Procedural Justice (PJ)				12*	.09
Direct Observation of IDM		04	.41*	06	.37*
Work Group IDM × IJ			08		
Work Group IDM × PJ					.05
Direct Observation of IDM × IJ			50**		
Direct Observation of IDM ×PJ					46**
$R^2$	.43	.45	.47	.45	.47
$\Delta R^2$		.02	.02	.02	.02
F	28.52***	19.01***	16.62***	19.00***	16.27***

Table 44
Supplemental - Hypothesis 3 – Mediation Step 3 - Indirect Knowledge and Justice Predicting IDM

DV=IDM	Controls	Controls Interactional J		Procedui	<b>Procedural Justice</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
T1 IDM	.56***	.46***	.48***	.48***	.51***	
Age	08	11*	12*	10*	11*	
Gender	10*	10*	06	10*	07	
Job status	.13*	.09	.07	.10*	.12*	
Team size	.01	02	.01	02	.00	
T1 Work Group IDM		.09	.27	.09	.10	
Interactional Justice (IJ)		12*	.08			
Procedural Justice (PJ)				10*	.10	
Indirect Knowledge of IDM		.09	.58**	.07	.44**	
Work Group IDM × IJ			19			
Work Group IDM × PJ					02	
Indirect Knowledge of IDM × IJ			53**			
Indirect Knowledge of IDM ×PJ					41*	
$R^2$	.43	.45	.48	.45	.47	
$\Delta R^2$		.02	.03	.02	.02	
F	28.52***	19.36***	16.90***	19.15***	16.07***	

Table 45
Supplemental - Hypothesis 3 – Mediation Step 3 - Prevalence and Justice Predicting IDM

DV=IDM	Controls	Controls Interactional Justice		e Procedural Justice			
	Step 1	Step 2	Step 3	Step 2	Step 3		
Controls	_	_	_	_	_		
T1 IDM	.56***	.48	.51***	.50***	.55***		
Age	08	11*	13*	10*	11*		
Gender	10*	10	06	10*	07		
Job status	.13*	.08	.07	.10	.12*		
Team size	.01	02	.01	01	.01		
T1 Work Group IDM		.09	.21	.09	.05		
Interactional Justice (IJ)		12*	.12				
Procedural Justice (PJ)				11*	.14		
Prevalence of IDM		.05	.58**	.03	.46**		
Work Group IDM × IJ			12				
Work Group IDM × PJ					.04		
Prevalence of IDM × IJ			59**				
Prevalence of IDM ×PJ					50**		
$R^2$	.43	.45	.48	.45	.47		
$\Delta R^2$		.02	.03	.02	.02		
F	28.52***	19.05***	17.04***	18.92***	16.30***		

Table 46
Supplemental - Hypothesis 4 - HLM Results for Direct Observation and Group Factors Predicting ODM

DV=ODM	Controls Coh		esion	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.40**	.42***	.42***	.40***	.41***
Job status	.23**	.20**	.21**	.21**	.21**
Team size	.01	.01	.01	.01	.01*
Formal sanctions	08*	08*	08*	08*	08*
T1 Work Group ODM		.18*	.24	.08	61
Cohesion		.02	.08		
Informal Sanctions				11***	18
Direct Observation of ODM		02	.26*	02	.25*
Work Group ODM × Cohesion			02		
Work Group ODM × Informal Sanctions			.02		.12
Direct Observation of ODM × Cohesion			02*		
Direct Observation of ODM × Informal Sanctions					03*

Table 47
Supplemental - Hypothesis 4 - HLM Results for Indirect Knowledge and Group Factors Predicting ODM

DV=ODM	Controls	Coh	esion	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.40**	.37***	.39***	.37***	.39***
Job status	.23**	.19*	.20*	.22**	.19*
Team size	.01	.00	.01	.00	.01
Formal sanctions	08*	08*	08*	07*	07*
T1 Work Group ODM		.14*	.21	.10	26
Cohesion		.00	.10		
Informal Sanctions				11**	10
Indirect Knowledge of ODM		.04	.36*	.04	.33*
Work Group ODM × Cohesion			02		
Work Group ODM × Informal Sanctions					.06
Indirect Knowledge of ODM × Cohesion			02*		
Indirect Knowledge of ODM × Informal Sanctions					04*

Table 48
Supplemental - Hypothesis 4 - HLM Results for Prevalence and Group Factors Predicting ODM

DV=ODM	Controls		esion	Informal	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
T1 ODM	.40**	.38***	.42	.37***	.45**	
Job status	.23**	.21**	.20**	.22**	.22**	
Team size	.01	.01	.01	.01	.01	
Formal sanctions	08*	08*	07*	07*	09*	
T1 Work Group ODM		.13	.28	.06	77	
Cohesion		.01	.12			
Informal Sanctions				11**	24	
Prevalence of ODM		.03	.39*	.01	.45**	
Work Group ODM × Cohesion			02			
Work Group ODM × Informal Sanctions					.15	
Prevalence of ODM × Cohesion			03			
Prevalence of ODM × Informal Sanctions					04*	

Table 49
Supplemental - Hypothesis 4 - HLM Results for Direct Observation and Group Factors Predicting IDM

DV=IDM	Controls		Cohesion		<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
T1 IDM	.55***	.60***	.65***	.64***	.66***	
Age	.00	.00	.00	.00	.00	
Gender	.00	.00	.00	.00	.00	
Job status	.34**	.15	.11	.16	.16	
Team size	.00	.00	.00	.00	.00	
T1 Work Group IDM		.15*	.00	.13*	.20	
Cohesion		03	05			
Informal Sanctions				08*	.06	
Direct Observation of IDM		03	.02	04	.38**	
Work Group IDM × Cohesion			.01			
Work Group IDM × Informal Sanctions					02	
Direct Observation of IDM × Cohesion			.00			
Direct Observation of IDM × Informal Sanctions					06**	

Table 50 Supplemental - Hypothesis 4 - HLM Results for Indirect Knowledge and Group Factors Predicting IDM

DV=IDM	Controls	Cohe	esion	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.55***	.53***	.56***	.52***	.43**
Age	.00	.00	.00	.00	.00
Gender	.00	.00	.00	.00	.00
Job status	.34**	.19	.19	.18	.28
Team size	.00	.00	.00	.00	.00
T1 Work Group IDM		.15*	.06	.11	.50
Cohesion		02	.02		
Informal Sanctions				07*	.08
Indirect Knowledge of IDM		.07*	.38*	.07*	.43**
Work Group IDM × Cohesion			.01		
Work Group IDM × Informal Sanctions					08
Indirect Knowledge of IDM × Cohesion			02*		
Indirect Knowledge of IDM × Informal Sanctions					02

Table 51
Supplemental - Hypothesis 4 - HLM Results for Prevalence and Group Factors Predicting IDM

DV=IDM	Controls	Cohe	esion	<b>Informal Sanctions</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.55***	.52***	.60***	.56***	.60***
Age	.00	.00	.00	.00	.00
Gender	.00	.00	.00	.00	.00
Job status	.34**	.16	.23	.17	.18
Team size	.00	.00	.00	.00	.00
T1 Work Group IDM		.13	.24	.11	.21
Cohesion		02	.11		
Informal Sanctions				07*	.09
Prevalence of IDM		.05	.52**	.04	.48**
Work Group IDM × Cohesion Work Group IDM × Informal Sanctions			01		02
•			0.44		
Prevalence of IDM × Cohesion Prevalence of IDM × Informal Sanctions			04*		06*
1 Tevalence of IDIVI ^ IIIIOIIIIai Sanctions					00

Table 52
Supplemental - Hypothesis 5 – Mediation Step 1 - Personality Interactions Predicting ODM

DV=ODM		Negative Affectivity		<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.39***	.39***	.41***	.40***
Job status	.15**	.12*	.12*	.11*	.09
Team size	.09	.05	.04	.07	.07
Formal sanctions	12*	08	09	10*	10*
T1 Work Group ODM		.07	.06	.10	.65
Negative Affectivity		.26***	.25***		
Honesty-Humility				16**	17**
Work Group ODM × Negative Affectivity			.05		
Work Group ODM × Honesty-Humility					57
$R^2$	.28	.35	.35	.32	.32
$\Delta R^2$		.07	.00	.04	.00
F	20.36***	18.39***	15.83***	15.81***	13.77***

Table 53
Supplemental - Hypothesis 5 – Mediation Step 3 - Direct Observation and Personality Predicting ODM

DV=ODM	Controls	_	Affectivity	<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.46***	.46***	.44***	.44***
Job status	.15**	.11*	.10*	.10*	.09
Team size	.09	.04	.04	.07	.08
Formal sanctions	12*	10*	10*	11*	10*
T1 Work Group ODM		.07	.07	.09	.43
Negative Affectivity		.29***	.29**		
Honesty-Humility				16**	01
Direct Observation of ODM		15	14	06	.57**
Work Group ODM × Negative Affectivity			.03		
Work Group ODM × Honesty-Humility					37
Direct Observation of ODM × Negative Affectivity			.00		
Direct Observation of ODM × Honesty-Humility					65**
$R^2$	.28	.37	.37	.32	.35
$\Delta R^2$		.08	.00	.04	.03
F	20.36***	16.68***	12.90***	13.64***	12.15***

Table 54
Supplemental Hypothesis 5 – Mediation Step 3 - Indirect Knowledge and Personality Predicting ODM

DV=ODM	Controls	Negative A	Affectivity	<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.40***	.40***	.39***	.40***
Job status	.15**	.12*	.11*	.11*	.08
Team size	.09	.05	.04	.06	.07
Formal sanctions	12*	09	09	09	09
T1 Work Group ODM		.07	.06	.09	.44
Negative Affectivity		.26***	.27**		
Honesty-Humility				17**	03
Indirect Knowledge of ODM		03	01	.03	.56**
Work Group ODM × Negative Affectivity			.05		
Work Group ODM × Honesty-Humility					36
Indirect Knowledge of ODM × Negative Affectivity			03		
Indirect Knowledge of ODM × Honesty-Humility					57**
$R^2$	.28	.35	.35	.32	.35
$\Delta R^2$		.07	.00	.04	.03
F	20.36***	15.73***	12.23***	13.54***	12.01***

Table 55
Supplemental Hypothesis 5b – Mediation Step 3 - Prevalence and Personality Predicting ODM

DV=ODM	Controls	_	Affectivity	<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 ODM	.44***	.43***	.43***	.41***	.42***
Job status	.15**	.11*	.11*	.11*	.09
Team size	.09	.05	.04	.07	.08
Formal sanctions	12*	10	10*	10	09
T1 Work Group ODM		.07	.07	.09	.36
Negative Affectivity		.28***	.29**		
Honesty-Humility				16**	.02
Prevalence of ODM		09	07	.00	.67**
Work Group ODM × Negative Affectivity			.04		
Work Group ODM × Honesty-Humility					30
Prevalence of ODM × Negative Affectivity			03		
Prevalence of ODM × Honesty-Humility					71***
$R^2$	.28	.36	.36	.32	.36
$\Delta R^2$		.08	.00	.04	.02
F	20.36***	16.06***	12.46***	13.49***	12.58***

Table 56
Supplemental Hypothesis 5 – Mediation Step 1 - Personality Interactions Predicting IDM

DV=IDM		Negative A	<b>Negative Affectivity</b>		<b>Honesty-Humility</b>		
	Step 1	Step 2	Step 3	Step 2	Step 3		
Controls							
T1 IDM	.56***	.49***	.49***	.54***	.53***		
Age	08	07	06	04	04		
Gender	10*	10*	09	07	07		
Job status	.13*	.18**	.10*	.10*	.09		
Team size	.01	05	04	01	.00		
T1 Work Group IDM		.07	.05	.06	.50		
Negative Affectivity		.23***	.24***				
Honesty-Humility				16**	16**		
Work Group IDM × Negative Affectivity			.11*				
Work Group IDM × Honesty-Humility					45		
$R^2$	.43	.48	.49	.46	.46		
$\Delta R^2$		.05	.01	.03	.00		
F	28.52***	25.00***	22.77***	22.43***	19.78***		

Table 57
Supplemental - Hypothesis 5 – Mediation Step 3 - Direct Observation and Personality Predicting IDM

DV=IDM		_	Affectivity	<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.56***	.55***	.55***	.56	.57***
Age	08	06	06	04	06
Gender	10*	09	08	06	05
Job status	.13*	.10*	.09	.10	.09*
Team size	.01	05	05	01	.02
T1 Work Group IDM		.08	.06	.06	.53
Negative Affectivity Honesty-Humility		.24***	.30***	16**	.03
Direct Observation of IDM		09	01		
				04	.70***
Work Group IDM × Negative Affectivity			.11*		
Work Group IDM × Honesty-Humility					48
Direct Observation of IDM × Negative Affectivity			11		
Direct Observation of IDM × Honesty-Humility					77***
$R^2$	.43	.49	.50	.46	.50
$\Delta R^2$		.06	.01	.03	.04
	28.52***	22.06***	18.32***	19.57***	18.48***

Table 58
Supplemental - Hypothesis 5 – Mediation Step 3 - Indirect Knowledge and Personality Predicting IDM

DV=IDM		Negative .	Affectivity	<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3
Controls					
T1 IDM	.56***	.45***	.46***	.48***	.50***
Age	08	07	07	05	06
Gender	10*	10*	09	07	05
Job status	.13*	.11*	.10*	.10*	.11*
Team size	.01	05	04	01	.02
T1 Work Group IDM		.06	.05	.05	.40
Negative Affectivity		.23***	.25**		
Honesty-Humility				15**	.01
Indirect Knowledge of IDM		.07	.09	.09	.66***
Work Group IDM × Negative Affectivity			.11*		
Work Group IDM × Honesty-Humility					36
Indirect Knowledge of IDM × Negative Affectivity			03		
Indirect Knowledge of IDM × Honesty-Humility					61**
$R^2$	.43	.49	.50	.46	.49
$\Delta R^2$		.06	.01	.03	.03
F	28.52***	21.99***	18.25***	19.92***	17.75***

Table 59
Supplemental Hypothesis 5 – Mediation Step 3 - Prevalence and Personality Predicting IDM

DV=IDM		Negative	<b>Negative Affectivity</b>		<b>Honesty-Humility</b>	
	Step 1	Step 2	Step 3	Step 2	Step 3	
Controls						
T1 IDM	.56***	.48***	.49***	.50***	.53***	
Age	08	07	07	05	06	
Gender	10*	10*	08	07	05	
Job status	.13*	.11*	.10*	.10*	.11	
Team size	.01	05	04	01	.03	
T1 Work Group IDM		.07	.05	.05	.46	
Negative Affectivity		.23***	.28**			
Honesty-Humility				15*	.05	
Prevalence of IDM		.01**	.07	.05	.78***	
Work Group IDM × Negative Affectivity			.12*			
Work Group IDM × Honesty-Humility					42	
Prevalence of IDM × Negative Affectivity			09			
Prevalence of IDM × Honesty-Humility					78***	
$R^2$	.43	.48	.50	.46	.50	
$\Delta R^2$		.05	.01	.03	.04	
F	28.52***	21.76***	18.14***	19.61***	18.52***	

Table 60 Summary of Hypotheses Testing

		ODM			IDM	
Hypothesis	Supported	Partially Supported	Not Supported	Supported	Partially Supported	Not Supported
Hypothesis 1	X			X		
Hypothesis 2						
Direct Observation		X		X		
Indirect Knowledge		X			X	
Prevalence		X		X		
Hypothesis 3						
Interactional Justice			X	X		
Procedural Justice			X	X		
Hypothesis 4						
Work Group Cohesion			X			X
Informal Sanctions		X			X	
Hypothesis 5						
Negative Affectivity			X			X
Honesty-Humility	X			X		

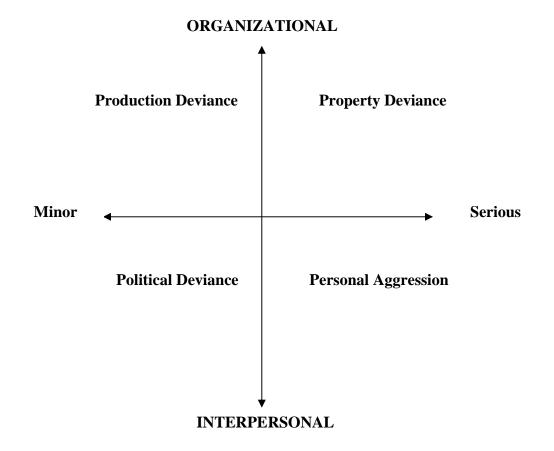


Figure 1
Typology of Workplace Deviance

Source: Robinson & Bennett (1995)

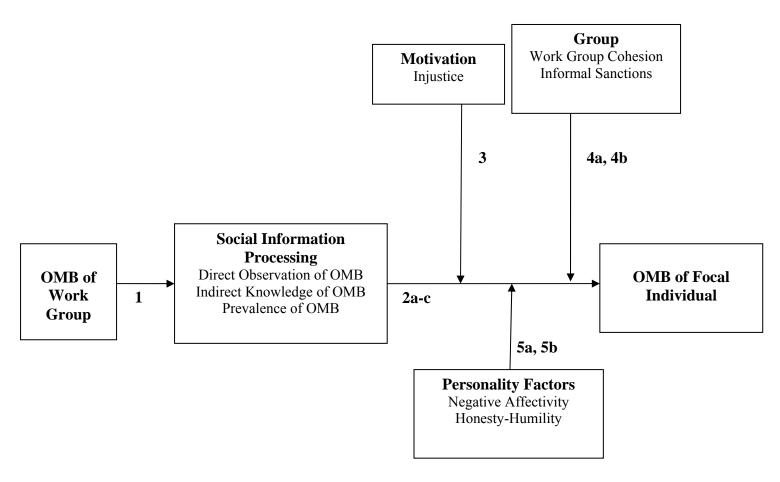
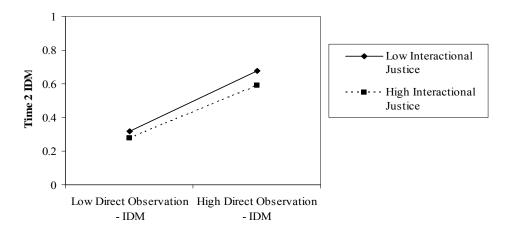


Figure 2
Social Contagion Model of Organizational Misbehavior\*

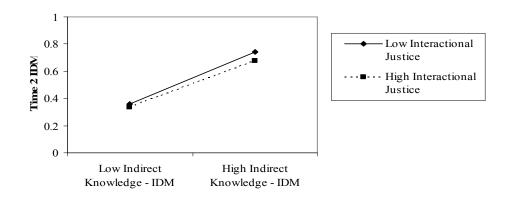
<sup>\*</sup>Numbers along arrows in the figure correspond to hypotheses presented in Chapter 3.

Figure 3
Interaction Effects for Interactional Justice and Social Information Factors on IDM

#### (3a) Interactional Justice by Direct Observation on Time 2 IDM



#### (3b) Interactional Justice by Indirect Knowledge on Time 2 IDM



#### (3c) Interactional Justice by Prevalence on Time 2 IDM

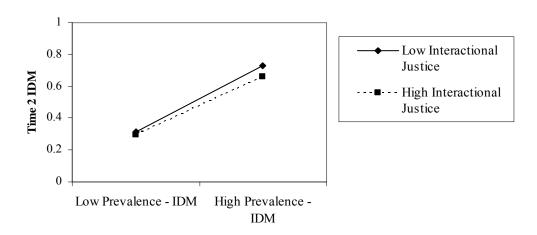
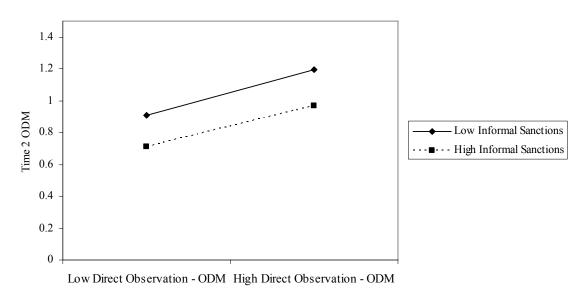


Figure 4
Interaction Effects for Informal Sanctions and Social Information Factors on ODM

#### (4a) Informal Sanctions by Direct Observation on Time 2 ODM



## (4b) Informal Sanctions by Prevalence on Time 2 ODM

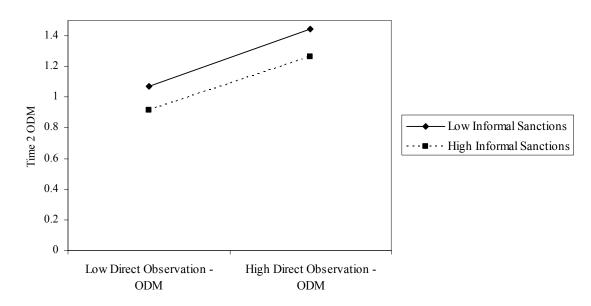
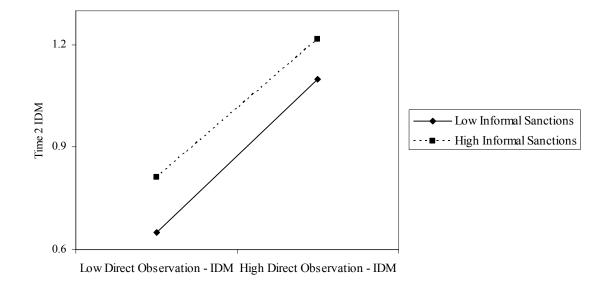


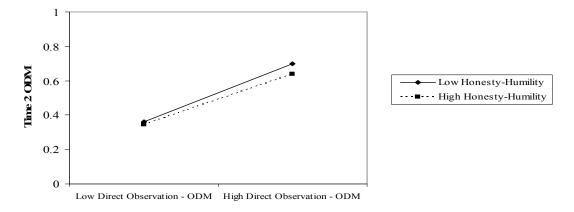
Figure 5
Interaction Effects for Informal Sanctions and Social Information Factors on IDM
(5a) Informal Sanctions by Direct Observation on Time 2 IDM



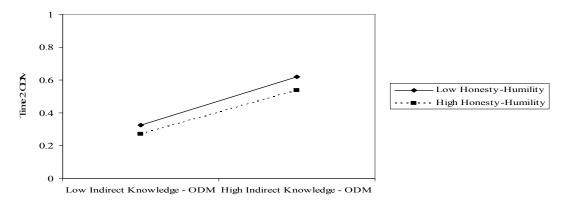
173

Figure 6
Interaction Effects for Honesty-Humility and Social Information Factors on ODM

#### (6a) Honesty-Humility by Direct Observation on Time 2 ODM



#### (6b) Honesty-Humility by Indirect Knowledge on Time 2 ODM



#### (6c) Honesty-Humility by Prevalence on Time 2 ODM

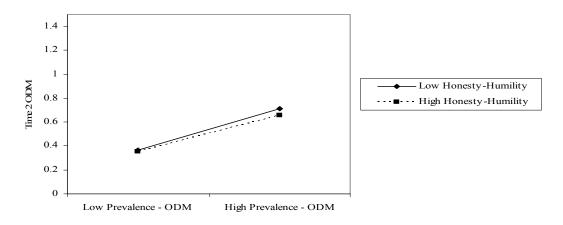
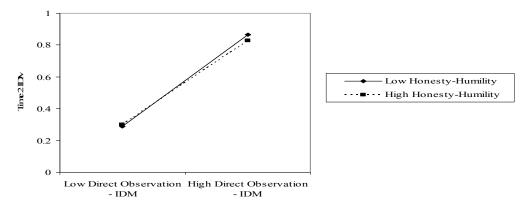
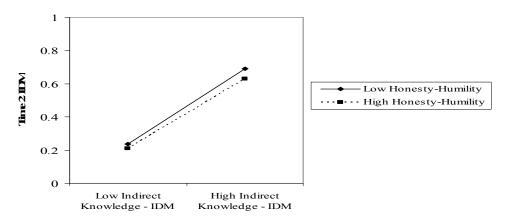


Figure 7
Interaction Effects for Honesty-Humility and Social Information Factors on IDM

## (7a) Honesty-Humility by Direct Observation on Time 2 IDM



#### (7b) Honesty-Humility by Indirect Knowledge on Time 2 IDM



## (7c) Honesty-Humility by Prevalence on Time 2 IDM

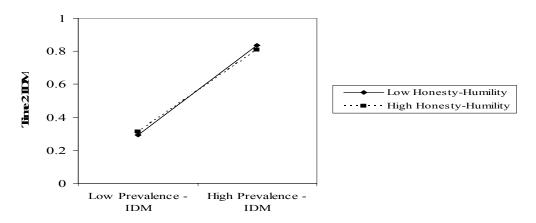


Figure 8
Updated Social Contagion Model for Organizationally Directed Misbehavior

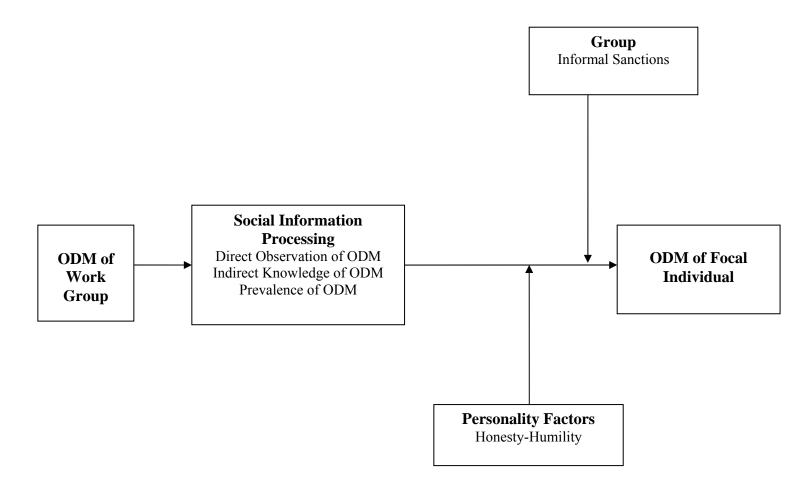
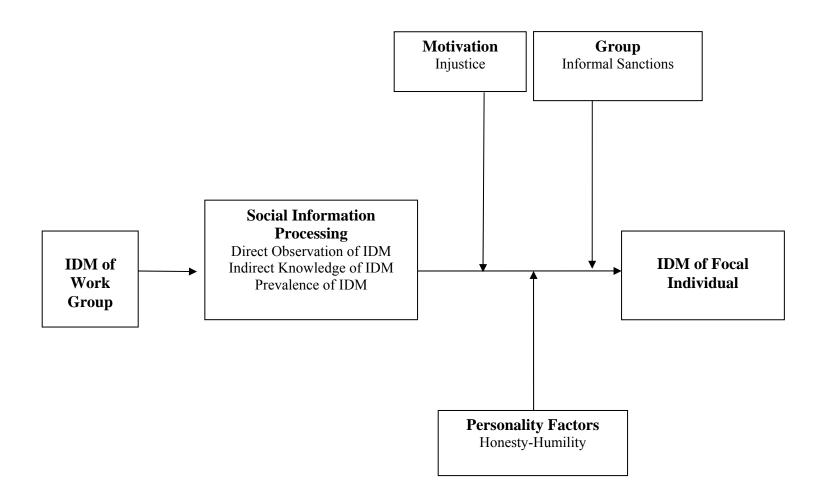


Figure 9
Updated Social Contagion Model for Interpersonally Directed Misbehavior



# APPENDIX A - TIME 1 QUESTIONNAIRE

# Respondent's Own OMB

To what extent over the last month have you engaged in these behaviors?
(1 = Never, 7 = Daily)
Made fun of someone at work
Said something hurtful to someone at work
Made an ethnic, religious, or racial remark at work
Cursed at someone at work
Played a mean prank on someone at work
Acted rudely toward someone at work
Publicly embarrassed someone at work
Taken property from work without permission
Spent too much time fantasizing or dreaming instead of working
Falsified a receipt to get reimbursed for more money than you spend on business expenses
Taken an additional or longer break than is acceptable at your workplace
Come in late to work without permission
Littered your work environment
Neglected to follow your boss'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
Dragged out work in order to get overtime
Direct observation of OMB
How often in the last month have you <i>directly observed a coworker</i> engage in the following behaviors?
(1 = Never, 7= Daily)
Make fun of someone at work
Say something hurtful to someone at work
Make an ethnic, religious, or racial remark at work
Curse at someone at work
Play a mean prank on someone at work
Act rudely toward someone at work
Publicly embarrass someone at work
Take property from work without permission
Spend too much time fantasizing or dreaming instead of working
Falsify a receipt to get reimbursed for more money than they spent on business expenses
Take an additional or longer break than is acceptable at your workplace
Come in late to work without permission
Litter their work environment
Neglect to follow their boss's instructions
Intentionally work slower than they could have worked
Discuss confidential company information with an unauthorized person
Use an illegal drug or consumed alcohol on the job
Put little effort into their work

		4 .	
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17182 001	WOIK III	OLUCI IO	get overtime
2 - 00,7 0 000	,, 0111	0101	

## **Indirect Knowledge of OMB**

How often in the last month have you learned from a secondary source (such as a coworker, supervisor, or subordinate) that someone in the organization engaged in the following behaviors?

(1 = Never, 7 = Daily)
Made fun of someone at work
said something hurtful to someone at work
Made an ethnic, religious, or racial remark at work
Cursed at someone at work
Played a mean prank on someone at work
Acted rudely toward someone at work
Publicly embarrassed someone at work
Taken property from work without permission
Spent too much time fantasizing or dreaming instead of working
Falsified a receipt to get reimbursed for more money than you spend on business expenses
Taken an additional or longer break than is acceptable at your workplace
Come in late to work without permission
Littered your work environment
Neglected to follow your boss's instructions
Intentionally worked slower than you could have worked
Discussed confidential company information with an unauthorized persor
Used an illegal drug or consumed alcohol on the job

Pu	t little effort into	o your work	
Dr	agged out work	in order to g	get overtime

## **Prevalence of OMB**

Across your entire organization, how widespread are the following behaviors??
(1 = No one does this, 7 = Almost everyone does this)
Made fun of someone at work
said something hurtful to someone at work
Made an ethnic, religious, or racial remark at work
Cursed at someone at work
Played a mean prank on someone at work
Acted rudely toward someone at work
Publicly embarrassed someone at work
Taken property from work without permission
Spent too much time fantasizing or dreaming instead of working
Falsified a receipt to get reimbursed for more money than you spend on business expenses
Taken an additional or longer break than is acceptable at your workplace
Come in late to work without permission
Littered your work environment
Neglected to follow your boss'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

Dragged out work in order to get overtime	Dragged	out work	in order	to get	overtim
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#### **Justice Perceptions**

The following items refer to the procedures over which the organization has discretion in deciding important outcomes that you receive. For example, the organization may create procedures regarding vacation accrual, performance appraisal, etc. In answering the questions below, please consider only the procedures used by your organization to make decisions.

With respect to deciding important outcomes, to what extent do you agree or disagree that your organization's procedures have (1= strongly disagree, 7 = strongly agree)
been applied consistently?
been free of bias?
been based on accurate information?
upheld ethical and moral standards?
With respect to deciding important outcomes, to what extent do you agree or disagree that you have (1 = strongly disagree, 7 = strongly agree)
been able to express your views and feelings during your organization's procedures?
had influence over the outcomes arrived at by your organization's procedures?
been able to appeal the outcome arrived at by your organization's procedures?
The following items refer to the way procedures are carried out by the organization. In answering the questions below, please think specifically about how the organization acts in carrying out its procedures.
With respect to carrying out procedures, to what extent do you agree or disagree that your organization has $(1 = \text{strongly disagree}, 7 = \text{strongly agree})$
treated you in a polite manner?
treated you with dignity?

	treated you with respect?
	refrained from improper remarks or comments?
	been candid in his/her communications with you?
	explained the procedures thoroughly?
	provided reasonable explanations about the procedures used?
	communicated details in a timely manner?
	seemed to tailor his/her communications to individuals' specific needs?
	The following items refer to important outcomes you potentially receive that are decided by your organization (i.e., officials above the level of your supervisor, including top level officials). For example, your organization may control outcomes such as annual bonuses, number of days of vacation, etc. In answering the questions below, please consider only those outcomes that are controlled by your organization.
	To what extent do you agree or disagree that your outcomes that are controlled by the organization have $(1 = \text{strongly disagree}, 7 = \text{strongly agree})$
	reflected the effort you have put into your work?
	been appropriate for the work you have completed?
	reflected what you have contributed to the organization?
	seemed justified, given your performance?
Work (	Group Cohesion
	Indicate how much you agree or disagree with the following statements. Use the following scale to indicate your responses. (1 = strongly disagree, 7 = strongly agree)
	The members of my work group are ready to defend each other from criticism by outsiders.
	The members of my work group are very good at helping each other on the job.

	_The me	embers of my	work group	get along well w	ith each other.
	_The me	embers of my	work group	stick together ve	ry well.
Informal S	<u>anction</u>	<u>s</u>			
		the following	g activities, v	what would the mo	ost common reaction of
1 Enco	urage	2 Do nothing	3 Discourage	4 Avoid the person	5 Inform persons in authority
	_ Made	fun of some	one at work		
	_ said so	omething hur	tful to some	one at work	
	_ Made	an ethnic, rel	ligious, or ra	cial remark at wo	rk
	_ Curse	d at someone	at work		
	_ Played	l a mean prar	nk on someo	ne at work	
	_Acted	rudely towar	d someone a	at work	
	_ Public	ly embarrass	ed someone	at work	
	Taken	property fro	m work with	out permission	
	Spent	too much tim	ne fantasizin	g or dreaming inst	tead of working
busi	_ Falsifi ness exp		o get reimbu	ursed for more mo	ney than you spend on
	_ Taken	an additiona	l or longer b	reak than is accep	table at your workplace
	_ Come	in late to wo	rk without p	ermission	
	_ Littere	ed your work	environmen	t	
	Negle	cted to follow	v your boss's	s instructions	
	Intenti	onally work	ed slower tha	an you could have	worked
	_			•	h an unauthorized person

 Used an illegal drug or consumed alcohol on the job
 Put little effort into your work
Dragged out work in order to get overtime

# APPENDIX B - TIME 2 QUESTIONNAIRE

## Respondent's Own OMB

To what extent over the last month have you engaged in these behaviors?
(1 = Never, 7= Daily)
Made fun of someone at work
Said something hurtful to someone at work
Made an ethnic, religious, or racial remark at work
Cursed at someone at work
Played a mean prank on someone at work
Acted rudely toward someone at work
Publicly embarrassed someone at work
Taken property from work without permission
Spent too much time fantasizing or dreaming instead of working
Falsified a receipt to get reimbursed for more money than you spend on business expenses
Taken an additional or longer break than is acceptable at your workplace
Come in late to work without permission
Littered your work environment
Neglected to follow your boss'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

<u>Negative</u>	<u>Affectivity</u>							
e e	This scale consists of a number of words that describe different feelings and emotions. Read each item and select the appropriate answer. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers. (1 = small extent, 7 = large extent)							
_	Distressed	_Upset	Scared	Hostile	Irr	ritable		
_	Ashamed	Nervous	Jittery	Afraid	G	uilty		
Honesty	-Humility							
	low accurately do ery inaccurate, 7		•	etives describe	your pers	sonality? (1 =		
_	Honest	Fra	ank	Truthful		Sly		
	Cunning Calculating	Po	mpous	Нуросгі	tical	_		
<b>Formal</b>	Sanctions (contr	<u>rol)</u>						
p	or each of the fol ersons in authoriunish, 4 = fire or	ty be? $(1 = r)$	eward or pro	mote, 2 = do no				
_	Making fun of someone at work							
_	Saying something hurtful to someone at work							
_	Making an ethnic, religious, or racial remark at work							
_	Cursing at someone at work							
_	Playing a mean prank on someone at work							
_	Acting rudely toward someone at work							
	Publicly embarrassing someone at work							
_	Taking prop	erty from w	ork without p	permission				

\_\_\_\_ Dragged out work in order to get overtime

	Spent too much time fantasizing or dreaming instead of working
	Falsifying a receipt to get reimbursed for more money than was spent on business expenses
	Taking an additional or longer break than is acceptable at your workplace
	Coming in late to work without permission
	Littering the work environment
	Neglecting to follow boss's instructions
	Intentionally working slower than one could have worked
	Discussing confidential company information with an unauthorized person
	Using an illegal drug or consumed alcohol on the job
	Putting little effort into your work
	Dragging out work in order to get overtime
Task l	Interdependence (control)
	Indicate how much you agree or disagree with the following statements (1= strongly disagree, 7=strongly agree)
	I work closely with others in doing my work.
	I frequently must coordinate my efforts with others.
	My own performance is dependent on receiving accurate information from others.
	The way I perform my job has a significant impact on others.
	My work requires me to consult with others fairly frequently.

## **Demographics**

Please provide the following information about yourself and your organization. This information will be used to provide contextual data to help us understand the study's results.

Age	Gender:	Female	Male			
Predominant Ethnic Backgro	ound (select one)					
African American	American Indian/	Native American				
Asian/Pacific Islander	Hispanic/Spanish	American				
Mexican American	White/Caucasian					
Other; please specify:						
Level of education (select or	ne)					
High school diploma						
Associate's degree						
Bachelor's degree						
Some graduate work						
Master's degree						
Doctoral degree						
Other; please specify: _						
The country in which you live:						
In what job function is your position?						
Accounting	Clerical	Finance				
General Management Technology	Human Resources	s Infor	mation			

Marketing	Operations	Strategy
Other		
How long have you worked i	in your present job? (wr	ite in)
How long have you worked a	at your present organiza	tion? (write in)
Is your job full-time (35 or me)?	nore hours per week) or	part-time (less than 35 hours
Full-time		
Part-time		
How many individuals are in	your work group? (write	te in)

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