

OFF THE CLOCK AND OFF THE HOOK? EMPLOYEE OFF-DUTY DEVIANCE
RELATES TO COUNTERPRODUCTIVE BEHAVIOR ON THE JOB

by

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(Under the Direction of Brian Hoffman)

ABSTRACT

Management research has focused increasing attention on employee deviance and its potential harm on the organization and its members. Until recently, however, this research has ignored how employee deviance outside of work can affect the employee and the organization as a whole, and how off-duty misconduct can manifest in counterproductive work behavior (CWB). A recent study (Kennedy et al., 2013) introduced this new construct, off-duty deviance (ODD). Using two independent samples, the present study advances this emerging area by developing a measure of ODD and using this measure to investigate whether and under what circumstances deviance away from work will manifest in deviance at work. Structural equation modeling results show that those who engage in deviance away from work are much more likely to engage in counterproductive workplace behavior. Moderation analyses demonstrate that perceiving organizational policies to be fair reduces the likelihood that off-duty misconduct will manifest in CWB. Implications for consideration of ODD in selection contexts and organizational policy as well as future research directions are discussed.

INDEX WORDS: Counterproductive behavior, Personality, Off-duty behavior

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

In recent decades, increasing attention has focused on employee behaviors that may expose organizations to harm, including counterproductive workplace behavior (CWB; Dalal, 2005), sexual harassment (Willness, Steel, & Lee, 2007), workplace aggression (Douglas & Martinko, 2001; Hershcovis et al., 2007) and workplace violence (LeBlanc & Kelloway, 2002; Neuman & Baron, 1998). More recently, employers have shown increased concern for their employees' behavior while away from work. For instance, background checks are growing in popularity as a prescreening tool (Levashina & Campion, 2009), and organizations increasingly practice cyber-vetting the online presence of current and prospective employees (Stoughton, Thompson, Meade, & Wilson, 2012; Valentine, Fleishman, Sprague, & Godkin, 2010). Further, 18% of *Fortune's* top companies publicly post policies that explicitly govern employee off-duty behaviors (Kennedy, Hoffman, Lyons, & Bommer, 2013). Finally, the media and courts are replete with cases of employees who have been terminated on the basis of their behavior away from work (Clay & Stephens, 1995; Hebert, 2012; Leap, 1988). At the root of controversy in this area is the as yet unanswered question as to whether off-duty behavior is work-relevant; that is, what is the nature of the relationship between deviance on and off the job?

Despite apparent relevance to modern organizations, surprisingly little research has investigated employee off-duty conduct. Recent research has labeled this pattern of employee behavior off-duty deviance (ODD), which consists of criminal or noncriminal behaviors that are counternormative by organizational standards, occur away from work, and are perceived as

harmful to the organization and its interests (Kennedy et al., 2013; Leap, 1988). Although preliminary research has provided a conceptual definition of ODD, even basic empirical understanding regarding the etiology of ODD remains unclear. For instance, some existing methods for managing ODD (e.g., background checking and drug testing) rest on the basic assumption that deviant behavior away from work will manifest in the workplace. However, this assumption is far from unanimous: some researchers have argued that background checks, the most popular form of ODD management, are only tenuously (or not at all) predictive of at-work deviance (Lam & Harcourt, 2003; Roberts, Harms, Caspi, & Moffitt, 2007). The connection between on- and off-duty misconduct has only been explicitly examined in one study known to the authors (Roberts et al., 2007), and results were mixed and inconclusive. The present study advances this area by drawing from recent conceptual work on ODD to more clearly define and examine the relationship between off- and on-duty deviance.

Previous research in this area has suffered from ambiguity in appropriate definitions and methods; in order to overcome these limitations we (a) develop a content valid measure of ODD, (b) articulate its dimensionality, (c) use factor analytic methods evaluate its relationship with CWB, (d) explore when that relationship is strongest, and (e) test structural models of their overlapping nomological networks.

The Importance of ODD in Organizational Settings

Our primary interest in this study is to understand how ODD relates to deviance at work, but given the scant attention in the research, we outline the theoretical background for the study of off-duty behavior in management research. Both legal and reputational concerns are proposed to engender organizations' interest in employee behavior away from work. Legal ramifications may motivate organizational concern for ODD because legal theories of vicarious liability, (e.g.,

negligent hiring and retention), may render a company liable for the actions of its employees, even when the employee is off-duty. The doctrine of negligent hiring holds employers accountable for harm done by their employees, even when they act outside the scope of employment, if the act could have been reasonably foreseen (Levashina & Campion, 2009; Kondrasuk, Moore, & Wang, 2001; Ryan & Lasek, 1991). The cost of vicarious liability is salient to organizations: historically, employers have lost 72% of negligent hiring cases with an average settlement award of \$1.6 million (Connerley, Arvey, & Bernardy, 2001). For example, in *Senger v. United States* (1996), a post office employee left his post and physically assaulted a tow truck driver who was towing his illegally parked car. When evidence revealed that the employee had a history of violence away from work, the victim sued the United States Postal Service for negligent hiring and retention, and was awarded \$508,100 in lost wages, medical bills, and punitive damages.

Negligent hiring entails criminal and injurious behavior, but organizations may also suffer reputational consequences for employee misconduct when there is no basis for vicarious liability, and even for behavior that is not illegal. According to the resource-based view (RBV) of organizations, organizations' reputations are "rare, nonimitable, and non-substitutable" (Barney, 1991, p. 116; Wernerfelt, 1984). That is, damage to an organization's reputation may result in the irreparable loss of value and competitive advantage. Off-duty misconduct may impact stakeholders' perceptions of the legitimacy, ethics, and competence of an organization; if stakeholders lose confidence, the organization may, in turn, suffer financially. For example, a flight attendant employed by Northwest Airlines admitted to producing legal, homosexual pornography outside of work, and was terminated on the basis that his position was highly visible and that the episode could sully the company's image (Leap, 1988). Indeed, Kennedy et

al. (2013) found that “damage to reputation” was the rationale most commonly cited by organizations that regulate the ODD of their employees.

Because organizations may suffer direct (e.g., litigation costs) and indirect (e.g., reputational damage) consequences of employees’ misconduct outside of work, many corporations have taken steps to preclude such cases from arising. Organizations may implement policies to regulate ODD or utilize employee screening devices, such as background checks, to reduce the potential for ODD (Levashina & Campion, 2009; Ryan & Lasek, 1991). This response on the part of organizations, in conjunction with vicarious liability theory and the RBV, suggests that the potential legal and reputational consequences of employee ODD galvanize organizations to protect themselves against that negative impact. In short, it is clear that organizations recognize employee ODD as a potential threat to organizational profitability.

It is also important to consider the impact of ODD, and organizational responses to it, on employees. Employees have been terminated for a broad array of off-duty indiscretions including drug- and alcohol-related behavior (Griswold, 2011; Leap, 1988); inappropriate sexual behavior (Hebert, 2012; Leap, 1988); and posting about the company, supervisors, or customers on the Internet (Little, 2011; Valentine et al., 2010). Some ODD prohibited by organizations is job-related; for example, one financial institution requires that its employees manage their own finances responsibly (Kennedy et al., 2013). Sometimes, however, employees may be terminated for ODD when the behavior’s relevance to the job is tenuous. In Texas, a nurse was terminated when she returned to her job following a suicide attempt, despite having undergone psychiatric treatment following the incident (Dexheimer, 2013). Recently a California corrections officer was terminated after he was found wearing female undergarments while off-duty (Hebert, 2012). Research has begun to link employee perceptions of drug testing and Internet monitoring with

performance outcomes (Alge, Ballinger, Tangirala, & Oakley, 2006; Konovsky & Cropanzano, 1991; Mastrenghelo & Popovich, 2000), but little is known about employee reactions to organizational policies prohibiting other types of off-duty behaviors (Stoughton et al., 2012). The types of behaviors for which employees may be fired, and organizational reactions vary by industry, state, and year (Dworkin, 1997; Sugarman, 2003), often changing with legal and social vicissitudes. Without clearly defined unacceptable behaviors and consequences, it is difficult for employees and organizations to navigate the murky waters of off-duty and organizationally relevant behavior.

Despite the potential impact of ODD on both organizations and employees, management research has been slow to investigate. To expand our understanding of this issue, we more clearly define the construct domain and dimensionality of ODD and explore its relationship with CWB.

Defining ODD

Construct Definition. ODD is defined as “criminal or non-criminal behaviors committed by an organizational employee outside the workplace that may jeopardize the employees’ status within the organization and leave the organization vulnerable to litigation and/or value reduction” (Kennedy et al., 2013). In a survey of organizations’ policies monitoring ODD, Kennedy et al. (2013) found that both criminal and noncriminal forms of ODD were mentioned. Based on the specific behaviors prohibited in these corporate statements they concluded that organizations regularly prohibit illegal behavior consisting of felonies, violent crimes, fraudulence, and illicit alcohol and drug use. Noncriminal ODD consists of behavior described as unethical / immoral, violations of information security regulations, inappropriate social networking behavior, and, sometimes, job-specific behavior. Both classes of ODD are comprised

of off-duty behaviors that are serious enough to be of concern to organizations; for instance, though illegal, minor traffic violations are unlikely to be of concern to organizations. While policies cited criminal behaviors 25% more often than noncriminal behaviors, both appeared in a considerable number of policy statements (Kennedy et al., 2013). Thus, a measure of ODD should include both criminal and noncriminal deviance that is relevant to organizations.

Although deviant behaviors are examined in a variety of settings, existing measures do not adequately capture the content of ODD. Measures of CWB (e.g., Bennett & Robinson, 2000; Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006) exclusively address employee behavior in the workplace, and are therefore deficient of most behaviors germane to ODD. Further, most of the items on popular CWB scales address minor and predominantly legal behaviors (e.g., tardiness), which may be unlikely to result in litigation or reputational damage. Behavior checklists used in criminology (e.g., Elliott & Huizinga, 1989; Evans, Cullen, Burton, Dunaway, & Benson, 1997; Tittle, Ward, & Grasmick, 2003) address off-duty and more severe behaviors but tend to place a disproportionate focus on certain classes of crimes (e.g., drug use) and do not devote sufficient attention to noncriminal behaviors. Even measures examining both criminal and noncriminal deviance (e.g., Evans et al., 1997; Tittle et al., 2003) do not address, for instance, unethical behavior that may negatively affect the organization but is not considered deviant by criminologists. That is, because ODD focuses on the impact of employee deviance on the organization, existing measures of criminal behavior tend to lack certain behaviors that are important to the organization (e.g., posting inappropriate information on the internet) and contain items that may not be of interest to organizations (e.g., smoking a pack of cigarettes in one day; Evans et al., 1997). Therefore, existing inventories of deviant behavior are contaminated and deficient measures of ODD. Accordingly, we draw from criminology and the organizational,

social, and clinical fields of psychology to develop a measure of employee ODD and to identify antecedents and correlates.

Dimensionality. The structure of deviance has long been a source of debate among psychologists and criminologists, with two competing camps that theorize deviance as either a unidimensional or multidimensional construct. Much research and theory (e.g., Donovan & Jessor, 1985; Gottfredson & Hirschi, 1990; Jessor & Jessor, 1977) has accumulated in support of the generality of deviance, which posits that a broad array of deviant behaviors can be explained with a single latent factor. These models include both criminal (e.g., violence, theft, vandalism, drug use) and noncriminal deviance (also called analogous behavior, which includes excessive drinking, speeding, gambling, among other behaviors, and is theorized to share causal underpinnings with criminality; Gottfredson & Hirschi, 1990; Pratt & Cullen, 2000; Tittle et al., 2003). This generalist perspective suggests that individuals tend not to engage in a single deviant behavior but rather a wide variety regardless of criminality, severity, or nature; in other words, they conceptualize a general factor of deviance (Gottfredson & Hirschi, 1990).

Despite the popularity of the general theory of crime, it is not universally accepted or supported by empirical data. In a review of the dimensionality of deviance literature, Hindelang et al. (1981) conclude that deviance is comprised of distinct sets of highly correlated classes of behavior. Many empirical studies have investigated the dimensionality of deviance (e.g., Bartusch, Lynam, Moffitt, & Silva, 1997; Donovan & Jessor, 1985; Tittle et al., 2003; Zhang, Welte, & Wieczorek, 2002). Taken together, results of studies of this kind indicate that diverse deviant behaviors may be strongly related but the general factor model may not be the most appropriate empirical model (Lussier, Proulx, & LeBlanc, 2005). For example, Paternoster and Brame (1998) estimated a correlation of only .33 between criminal and analogous behaviors.

Another study (Lussier et al., 2005) indicated that sexual crimes may not fit into the general model of deviance. Other researchers (Leblanc & Bouthillier, 2003) have attempted to integrate the two frameworks by testing simultaneously unidimensional and multidimensional models (i.e., using a general higher-order factor to explain the relationships among multiple lower-order factors).

Management researchers, on the other hand, have accumulated a separate stream of work investigating the dimensionality of CWB. Interestingly, of the many proposed models, the single factor model has received comparatively little support (Gruys & Sackett, 2003). Hollinger and Clark (1982) were among the first to propose a taxonomy of organizational deviance, consisting of property deviance (e.g., theft) and production deviance (e.g., rule-breaking). Robinson & Bennett (1995) later noted that this system did not account for interpersonal deviance; their framework categorized behaviors as either interpersonal or organizational and either more or less severe. Perhaps because the severity continuum represents a more quantitative than qualitative difference, that characteristic is not often used in taxonomies of CWB, but the interpersonal-organizational categorization has persisted as one of the more popular (but not uncontested; cf. Dalal, 2005) models (Berry, Ones, & Sackett, 2007). Much like LeBlanc & Bouthillier's (2003) model, Sackett and DeVore (2001) proposed a conceptual hierarchical model that integrated the two-factor framework with the generality of deviance approach by specifying a general second-order factor in addition to the first-order interpersonal and organizational factors.

Unlike the criminology literature, organizational research has seldom addressed the difference between criminal and noncriminal deviance. Bowling and Gruys (2010) note that although popular CWB scales include both criminal and noncriminal behaviors, no research has directly compared the two categories in terms of base rates or differential relationships with other

variables. They suggest that employees may be willing to engage in noncriminal (but perhaps unethical or otherwise disreputable) behavior but reluctant to break the law (Bowling & Gruys, 2010).

In sum, the literature has posited both unidimensional and multidimensional models of deviance. Instead of hypothesizing the structure, we pose a research question, to be tested by evaluating a series of confirmatory models:

Research Question 1: What is the factor structure of ODD?

The Relationship between ODD and CWB

Of central interest in this study is the relationship between on- and off-duty misconduct. While some selection policies such as background checking and drug testing implicitly assume that these off-duty behaviors will predict problematic work behaviors, this assumption has yet to be confirmed empirically. Just as the general theory of crime (Gottfredson & Hirschi, 1990) dictates that ODD will be unidimensional, the logic of the framework also predicts that ODD and CWB represent the same underlying construct. That is, the theory suggests that deviant individuals will engage in many types of behaviors across situations, as these actions are all caused by a single underlying proclivity to violate rules and norms. Accordingly, employees who are deviant outside of work are expected to also engage in counterproductive behavior when they are at work. This study directly tests the assumed convergence of on- and off-duty misconduct upon which many current organizational selection practices are predicated.

ODD and CWB are conceptually similar in that both are forms of deviant behavior; however, they differ primarily in that ODD pertains to misconduct away from work whereas CWB focuses on deviant behavior during working hours and targets the organization and/or its members. CWB is broadly defined as “any intentional behavior on the part of an organization

member viewed by the organization as contrary to its legitimate interests” (Sackett, 2002, p. 5), but theoretical models and empirical measures are more narrow (typically consisting of theft, absenteeism, inappropriate interpersonal behavior, and misuse of company property that occur in the workplace; Sackett, 2002; Bennett & Robinson, 2000; Spector et al., 2006). For example, if an employee steals from a store while off-duty, it would not be surprising if that individual also stole items from their organization.

There is also some preliminary empirical evidence of the relationships between ODD and CWB. Studies have linked CWB to characteristics and behaviors related to general deviance, including self-control (Henle, 2005), trait anger (Hershcovis, et al., 2007), aggression (Berry et al., 2007; Hershcovis, et al., 2007), diagnosis with conduct disorder (Roberts et al. 2007), and poor financial history (Oppler, Lyons, Ricks, & Oppler, 2008). Research has also revealed an inverse relationship between CWB and intelligence (Dilchert, Ones, Davis, & Rostow, 2007); low intelligence, in turn, is understood to relate to criminal behavior (Lynam, Moffit, & Stouthamer-Loeber, 1993; White, Moffit, & Silva, 1989). Based on the conceptual relationships between CWB and other deviant characteristics and behaviors, we expect that deviance will be somewhat consistent across situations.

Hypothesis 1: CWB is positively related to ODD.

Despite these conceptual similarities and potential shared antecedents, there is reason to expect that CWB and ODD are not wholly redundant. Because CWB occurs on the job, the behaviors are directed at the organization (e.g., stealing office supplies) and/or other its members (e.g., insulting a coworker). Accordingly, CWB may be influenced in part by job-related variables, such as attitudes toward the organization and coworkers (Dalal, 2005). In contrast, ODD occurs when the employee is off-duty (e.g., during breaks, lunch, after work). These

behaviors are not necessarily directed toward the organization or its employees, and are therefore probably less dependent on the employee-organization relationship.

Surprisingly, only one study could be located that examined the relationship between criminal background and CWB (Roberts et al., 2007). This longitudinal examination found that CWB could be predicted by adolescent diagnosis with conduct disorder (defined as consistent engagement in behavior that violates the rights of others and/or societal norms, and may include physical harm, destruction of property, deceitfulness and theft; *DSM-IV*; American Psychiatric Association, 1994), but failed to find a significant relationship between employee commission of CWB and criminal convictions occurring before entrance into the workforce (Roberts et al., 2007). Likewise, studies investigating the predictive validity of drug testing for CWB have revealed mixed and often non-significant findings (Comer, 1994). Methodological and construct validity issues may be a contributing factor in these inconsistent results: the limited existing research on off-duty misconduct has relied on proxies such as background checks or drug tests (both of which have been criticized as deficient or otherwise problematic measures; Alder, Schminke, & Noel, 2007; Comer, 1994; Lam & Harcourt, 2003), as well as alternative measures of CWB (e.g., interview methods rather than an established scale).

Thus, despite theoretical suggestions of the overlap between off- and on-duty deviance, empirical evidence on this relationship is scarce and often conflicting. This mixed evidence raises questions about the convergence of off- and on-duty deviance and suggests that the empirical relationship may differ based on the operationalization of ODD. Thus, a primary purpose of this study is to examine the relationship between at-work and off-duty deviance by comparing a new, comprehensive measure of ODD with an established measure of CWB.

Research Question 2: Are ODD and CWB distinct constructs?

Nomological Network of ODD

While ODD and CWB are expected to relate and share some common antecedents, there is reason to believe they are distinct from one another, and are situated in different nomological networks. Given that personality traits are commonly associated with deviance across many contexts, but job attitudes are more salient while at work (Dalal, 2005; Dilchert et al., 2007; Roberts et al., 2007), we expect that individual difference variables will predict deviance both at and away from work whereas job attitudes will be more strongly related to CWB. This pattern would demonstrate overlapping but unique nomological networks (see Figure 1).

ODD and Self-Control. Gottfredson and Hirschi's (1990) self-control theory of crime proposes that individuals lacking in self-control are less able to resist the temptation of criminal or other deviant activities. These individuals (a) struggle to defer gratification, (b) lack diligence, tenacity, or persistence, (c) tend to be adventuresome, active, and physical, (d) are often short-sighted, (e) lack cognitive, academic, or planning skills, (f) are insensitive to the suffering and needs of others, and (g) possess a low tolerance for frustration and tend to respond physically rather than verbally (Gottfredson & Hirschi, 1990).

In support of this theory, empirical evidence has consistently demonstrated inverse relationships between self-control and delinquency (Tremblay, Boulerice, Arseneault, & Niscale, 1995), criminal convictions (Polakowski, 1994), academic dishonesty (Cochran, Wood, Sellers, Wilkerson, & Chamlin, 1996), and law violations (e.g., Burton, Cullen, Evans, Fiftal-Alarid, & Dunaway, 1998; Gibbs, Giever, & Martin, 1998; Grasmick, Tittle, Bursik, & Arneklev, 1993). In their meta-analysis, Pratt & Cullen (2000) found weak to moderate relationships (mean uncorrected effect sizes above .20) between self-control and deviance across a variety of

populations and substantive moderators. They note that these results “rank self-control as one of the strongest known correlates of crime” (Pratt & Cullen, 2000; p. 952). Organizational research indicates that self-control (or impulsivity, defined as a lack of self control) is also linked to CWB (Marcus & Schuler, 2004; Henle, 2005) and workplace aggression (Douglas & Martinko, 2001). Based on the general theory of crime and on this empirical evidence, we expect self-control to be associated with both ODD and CWB.

Hypothesis 2: Self-control is negatively related to (a) ODD and (b) CWB.

ODD and the FFM. Several factors of the FFM (namely, conscientiousness, emotional stability, and agreeableness) have been implicated as antecedents of deviant behavior (Dilchert et al., 2007; Miller & Lynam, 2001; Sackett & DeVore, 2001). A central component of conscientiousness is rule-abidingness and self-restraint; therefore, individuals high in conscientiousness tend to be less likely to engage in behavior that violates rules or norms (Dalal, 2005; Le Corff & Toupin, 2009). Emotional stability is characterized by calmness, low anxiety and low emotionality; these characteristics make people who are high in emotional stability less likely to engage in deviant behavior. Low agreeableness is associated with elevated high hostility and negative affect; individuals with these characteristics are more likely to engage in deviant or harmful behavior (Berry et al., 2007; van Dam, Janssens, & De Bruyn, 2004).

The organizational literature provides consistent empirical support for the relationships between CWB and conscientiousness, emotional stability, and agreeableness, with reported meta-analytic correlations of -.38 (Dalal, 2005), -.26, and -.44 (Berry et al., 2007), respectively. Criminology studies have yielded similar findings. One study showed that emotional stability and agreeableness significantly differed between criminal and non-criminal populations and also predict recidivism (Le Corff & Toupin, 2009; van Dam, Janssens, & De Bruyn, 2004).

Consistent with those findings, a meta-analysis by Miller and Lynam (2001) showed that conscientiousness, emotional stability, and agreeableness (but neither extraversion nor openness) were significantly related to deviant criteria, including “official designation as a prisoner or delinquent; parent-, teacher-, or self-reported delinquency; and antisocial personality disorder symptoms” (p. 774).

Conscientiousness, emotional stability, and agreeableness predict an array of deviant behaviors across many situational contexts. For these reasons, we expect these dimensions of personality to predict ODD.

Hypothesis 3: Conscientiousness is negatively related to (a) ODD and (b) CWB.

Hypothesis 4: Emotional stability is negatively related to (a) ODD and (b) CWB.

Hypothesis 5: Agreeableness is negatively related to (a) ODD and (b) CWB.

ODD and the Dark Triad. Organizational research has focused primarily on the relationship between deviance and normal personality, but Wu and LeBreton (2011; p. 594) argued that “deviant workplace behaviors may be best predicted by deviant personality traits.” One emerging alternative to traditional personality traits is the Dark Triad, which is comprised of narcissism, Machiavellianism, and psychopathy. Although empirically distinct from one another, these three personality constructs share elements of emotional coldness, duplicity, aggressiveness, and self-promotion at the expense of, or at least without concern for, others (Paulhus & Williams, 2002).

Narcissism is defined as a grandiose sense of self-importance and dysfunctional interpersonal relationships (*DSM IV*; American Psychiatric Association, 2000). Narcissists’ sense of entitlement and their belief that the rules do not apply to them are believed to lead them to engage in higher levels of deviance (O’Boyle, Forsyth, Banks, & McDaniel, 2012). Narcissism

has been empirically linked with aggression (Bushman & Baumeister, 1998; Twenge & Campbell, 2003), antisocial behavior (Williams, McAndrew, Learn, Harms, & Paulhus, 2001), lack of integrity or ethics (Blair, Hoffman, & Helland, 2008; Soyer, Rovenpor, & Kopelman, 1999), and white-collar crime (Blickle, Schlegel, Fassbender, & Klein, 2006). Furthermore, research has revealed a relationship with CWB with an uncorrected meta-analytic correlation of .35 between narcissism and CWB (O'Boyle et al., 2012; Penney & Spector, 2002). Given consistent associations between narcissism and deviance across settings, we predict that:

Hypothesis 6: Narcissism is positively related to (a) ODD and (b) CWB.

Machiavellianism, characterized by control- and status-seeking, amoral manipulation, and misanthropic distrust of others (Zettler, Friedrich, & Hilbig, 2011), has not been studied as thoroughly as narcissism in the organizational sciences, but may have important implications for ODD. Machiavellians feel less motivated to abide by social norms and therefore tend to exhibit hostile and unethical behavior (Christie, 1970; Kish-Gephart, Harrison, & Treviño, 2010), and engage in theft (Fehr, Samson, & Paulhus, 1992; Harrell & Harthage, 1976), CWB (Dahling, Whitaker, & Levy, 2009; O'Boyle et al., 2012) and antisocial behavior (Williams et al., 2001). Accordingly, we propose:

Hypothesis 7: Machiavellianism is positively related to (a) ODD and (b) CWB.

The final trait in the triad, psychopathy, is composed of three primary characteristics: (a) interpersonal arrogance and deceit, (b) affective deficiency in empathy, anxiety, guilt and remorse, and (c) behavioral impulsivity and irresponsibility (Cooke & Michie, 2001).

Psychopaths are unconcerned with adhering to social norms; their impulsivity, destructiveness and decreased inhibitions make them more likely to engage in deviance (O'Boyle et al., 2012).

Because many psychopaths gain satisfaction from harming others (Wu & LeBreton, 2011) there

is the potential for extreme interpersonal deviance. The risk of detection, a deterrent against CWB (Hollinger & Clark, 1983), is not as salient to psychopaths, who have reduced guilt and remorse (Boddy, 2006). Of the dark triad, psychopathy demonstrates the strongest relationships with antisocial behavior (Williams et al., 2001) and self-control (Jonason & Tost, 2010), with correlations of .47 and -.48, respectively. Consistent with this evidence, psychopathy relates positively to CWB (O'Boyle et al., 2012). Accordingly, we expect that psychopathy will be positively associated with employee deviance both on and off duty.

Hypothesis 8: Psychopathy is positively related to (a) ODD and (b) CWB.

Job Attitudes. Although we expect relevant personality constructs to predict deviant behavior across situations (i.e., at work as well as away from work), job attitudes are proposed to predict CWB but not ODD. Psychological contract (Rousseau, 1989), norm of reciprocity (Gouldner, 1960), and social exchange theories (Blau, 1964; Thibaut & Kelley, 1959) have been used to explain deviant behavior directed toward the organization and its employees. Researchers have applied these theories to suggest that, when employees are committed to their organization, feel satisfied with their job, and perceive organizational procedures to be just, they are less likely to engage in deviance against the organization or its members (Dalal, 2005). Many studies have supported the relationships between CWB and organizational commitment (e.g., O'Reilly & Chatman, 1986), job satisfaction (e.g., Penney & Spector, 2005), and perceived organizational justice (e.g., Cohen-Charash & Spector, 2002). Dalal (2005) estimated the population correlations between these attitudes and CWB to be -.36, -.37, and -.25, respectively.

As indicated by their definitions, two main differences between CWB and ODD are the location in which the behavior occurs and the target of that behavior. Because CWB occurs at work and harms coworkers and/or the organization, links between job attitudes and CWB are

predicated on the relationship between the employee and the organization. In contrast, ODD occurs away from work and is typically not directed at the organization or its members. Thus, that psychological relationship is not necessarily predictive of behaviors committed outside of work. Therefore, we propose that these organizational attitudes will be more strongly related to CWB than to ODD.

Hypothesis 9: (a) Organizational commitment, (b) job satisfaction, and (c) perceived organizational justice are more strongly related to CWB than ODD.

Factors Influencing the Strength of the ODD-CWB Relationship

The analysis of the nomological networks of ODD and CWB will clarify their relationship, but it is also important to consider variables that influence the likelihood that overall deviance will manifest in at-work deviance. Understanding when the relationship between on- and off-duty misconduct are most strongly related is central to the development of strategies to reduce the incidence of deviance at work.

First, we investigate whether the relationship between ODD and CWB depends on the type of outside deviance; that is, some off-duty behaviors may be more predictive than others of counterproductivity at work. In order to implement background checks in an effective and fair manner, it is informative to know exactly what types of ODD are red flags for at-work deviance. Past studies have used criminal records or drug testing as proxies for ODD; in so doing, they have focused on narrow definitions of deviance, and perhaps not captured the nuances of the relationship between deviant behavior away from work and on the job. On the other hand, some ODD behaviors may be more analogous to CWB (e.g., theft, interpersonal aggression), and might therefore be more valid predictors of when off-duty deviance might cross over into the workplace. Because there essentially no existing research on the structure and differential

relationships of different off-duty behaviors, we propose a research question to address this issue.

Research question 3: Which ODD behaviors relate most strongly to CWB?

Lastly, we examine the potential for organizations to actively influence the propensity of employees who are deviant outside of work to engage in CWB. We investigate this question by testing the moderating role of employee job attitudes on the ODD-CWB relationship. While we expect that individuals who engage in misconduct away from work will also be deviant when they are on the job, we hypothesize that deviance will not be perfectly consistent across contexts but rather that situational factors may play a role. Specifically, we propose that favorable job attitudes (i.e., high satisfaction, commitment, and justice perceptions) may reduce the likelihood that deviance will manifest at work, thus weakening the relationship between on- and off-duty misconduct. In other words, even if employees engage in deviant behavior outside of work, if they are highly committed and satisfied at work and perceive organizational decisions to be just, they may not engage in deviance that targets the organization.

Hypothesis 10: (a) Affective commitment, (b) job satisfaction, and (c) perceived organizational justice moderate the relationship between ODD and CWB such that the relationship is weaker when job attitudes are more favorable.

Overview of Studies

We conducted two field studies to explore ODD and its relationships with other work-related variables. In the first we developed and evaluated a measure of off-duty misconduct, assessed its dimensionality and investigated the relationship between those behaviors and counterproductive behavior on the job. In the second we cross-validated the measure of ODD,

examined its relationships with personality and job attitudes using a cross-lagged design, and explored variables that influence the strength of the ODD-CWB relationship.

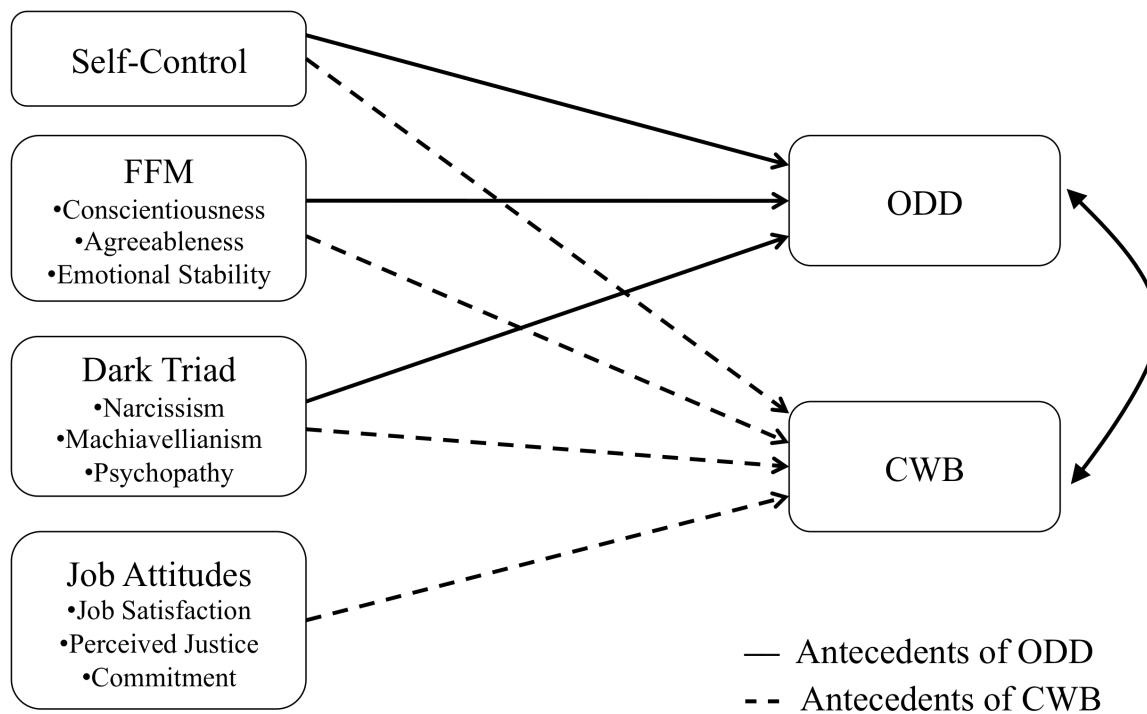


Figure 1.

Proposed overlapping nomological networks of off-duty deviance and counterproductive workplace behavior

CHAPTER 2

STUDY 1 METHOD

Participants and Procedure

Participants for Study 1 were contacted through a web-based recruitment site, Amazon's Mechanical Turk (Mturk), which allows people over the age of eighteen to participate in research online for small sums of money. This new method has been tested against traditional samples and determined to be a reliable source of data (Berinsky, Huber, & Lens, 2012; Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). Participants who completed the thirty-minute survey were compensated \$.50. In order to maintain confidentiality, participants were identified using assigned identification numbers for the site rather than their names. Participants were invited to complete the secure online survey with measures of ODD and CWB. These data were used as the initial validation sample to evaluate the scale.

Because the population of interest is working adults in the United States, the study posting was only made visible to individuals living in the United States, and individuals who identified themselves as unemployed were excluded from the sample. The sample of 509 had an average age of 33 and was comprised of 56 percent women. Participants had worked for their current employer for an average of 4.29 years. They supervised an average of 2.77 employees, but 63 percent of the sample was not responsible for supervising others. For full demographic information see Table 1.

Measures

ODD. Off-duty deviance was measured by the 43-item scale developed through the process discussed in the following section; items are listed in Table 2. The process for developing the scale is described in the next section.

CWB. Counterproductive workplace behavior was assessed with Bennett and Robinson's (2000) 19-item workplace deviance scale. Seven items address interpersonal deviance (e.g., "Cursed at someone at work") and 12 capture organizational deviance (e.g., "Come in late to work without permission"). Participants use a 7-point Likert scale (1 = *never*, 2 = *once a year*, 3 = *twice a year*, 4 = *several times a year*, 5 = *monthly*, 6 = *weekly*, and 7 = *daily*) to indicate the frequency of past behaviors.

Development of the ODD Measure

Item Generation. We employed both deductive and inductive methods for item generation, by consulting both existing research as well as critical incidents. For items capturing criminal and analogous behavior, we drew from inventories from criminology and management research. For criminal deviance we consulted several existing measures: the "general crime index" and the "Gottfredson/Hirchi crime index" (both published in Tittle et al., 2000) and the "general crime" and "analogous behaviors" scales by Evans et al. (1997). These measures are presented in Appendix 1. Although criminal behavioral checklists are useful for generating ODD items regarding criminal and analogous behaviors do not necessarily capture behaviors that may be of concern to organizations. We also consulted CWB scales (Bennett & Robinson, 2000; Spector et al., 2006; see Appendix 2) and adapted items addressing behaviors that may also occur off-duty.

The remaining item content was derived from the review of public corporate ODD policies and relevant legal cases. Kennedy et al. (2013) catalogued the content of organizational ODD statements published on their corporate websites; their taxonomy included both criminal and noncriminal behavior; some of these behaviors (e.g., internet behavior away from work; noncriminal behaviors that could be embarrassing to the firm) were not reflected in either CWB or criminal behavior checklists. Other forms of noncriminal ODD not explicitly mentioned in Kennedy et al. (2013) were included based on media reports and legal precedent (e.g., Hebert, 2012; Leap, 1988). After eliminating redundant or irrelevant items, we retained 43 items for potential inclusion (see Table 2).

Scale Development. In order to construct the scale, we turned to the measurement strategies found in the CWB and criminology literatures. Consistent with many inventories of deviant behavior (Evans et al., 1997; Tittle et al., 2000) and particularly the frequency with which self-reports are used to measure CWB (Bennett & Robinson, 2000; Spector et al., 2006) we use a self-report measure of ODD. Although self-report measures have been criticized for underestimating the incidence of deviance based on social desirability (Stewart, Bing, Davison, Woehr, & McIntyre, 2009), others have argued that, because deviance tends to be committed surreptitiously and often goes undetected, self-report measures are preferable to other-reports or objective measures (Evans et al., 1997; Spector & Fox, 2002). Further, a recent meta-analysis (Berry, Carpenter, & Barratt, 2012) showed that self-reports produced similar quality information as other-reports, and this similarity increased if anonymity was ensured. Consistent with convention in the measurement of deviance, self-ratings of ODD were used.

Another point of debate is the phrasing and scaling of items as agreement or frequency. Levels of agreement are sometimes used to capture behaviors that may not be available to all

employees (e.g., “under no circumstances would I use an employee discount”; Gruys, 1999), whereas behavioral frequencies estimate how often an employee engages in the deviant behavior. The majority of organizational deviance scales utilize frequency scales, and concerns about perceptual issues in agreement scales have been raised (Dalal, 2005). Consistent with this practice, and because we are interested in the actual occurrence and incidence of behavior, a frequency scale was more appropriate for our ODD measure.

Finally, we reviewed the instructional prompts of existing scales. Studies using indicators of behavioral frequencies vary in the time intervals they refer to: the last six months (Longshore, Turner, & Stein, 1996), twelve months (e.g., Evans et al., 1997), or five years (Tittle et al., 2003). Most of these studies sampled members of the general population, and educational and occupational information was not presented. Given our focus on working adults and our recruitment strategies (i.e., using an online survey tool and recruiting participants through university students) our samples may differ from the general population in important characteristics, such that they tend to engage in deviance (particularly criminal behavior) at lower rates. If we asked participants about their behavior in the last six months or even twelve months, the base rate might be so low as to impede proper analysis of the items. Thus, we chose the longest interval, and asked participants to respond based on their behavior in the previous five years.

Response options also differ among measurement tools. For example, Bennett and Robinson’s (2000) scale instructs participants to indicate how often they engaged in a particular behavior in the last year, with seven response points ranging from *never* to *daily*. We did not expect respondents to engage in these behaviors daily or even weekly, so we turned to the criminology literature. Some criminology studies use open-ended response options (sometimes

in interview settings), where participants indicate the number of times they have engaged in a particular behavior during varying periods of time. As open-ended formats can yield ambiguous responses (e.g., “I can’t remember” or “A lot”), others (Tittle et al., 2003) used a dichotomous format, where the respondent responds “Yes” if they have engaged in that behavior in the period in question and “No” if they have not. For theoretical purposes, however, in the present study we wanted to avoid unnecessary dichotomization; that is, frequency differences were meaningful to us. There may be substantive differences between someone who, for instance, drove while intoxicated once five years ago and someone who has driven while intoxicated more than ten times in the same period, but those differences would be lost. Hence, rather than dichotomize and lose information or use an open-ended format that might result in ambiguous or uninterpretable responses, we asked participants how many times in the last five years they had engaged in a particular behavior, and offered the following response options: *never, 1-2 times, 3-5 times, 6-10 times, more than 10 times*.

Table 1.

Demographic information.

Criterion	Sample 1	Sample 2
Mean age	33.03	44.53
SD age	12.01	12.23
Mean tenure at organization	4.29	8.28
Mean # of subordinates	2.77	4.07
With 0 subordinates	63%	56%
Salary (< \$25,000)	39%	13%
Salary (\$25,000-\$50,000)	36%	31%
Salary (\$50,000-\$75,000)	16%	18%
Salary (\$75,000-\$100,000)	7%	10%
Salary (>\$100,000)	2%	28%
Women	57%	55%
White	75%	84%
Asian	7%	3%
African American	7%	9%
Hispanic	4%	1%
American Indian	2%	1%
Other	5%	2%
N	509	187

CHAPTER 3

STUDY 1 RESULTS

Descriptives

First, item means and standard deviations were calculated; these values can be found in Table 2. We noted that the item means were low, with most falling between one and two on a five-point scale and none greater than three. Standard deviations were also low, with most less than one. Accordingly we examined the extent to which the data violated normality assumptions. A visual inspection of histograms revealed a considerable positive skew; we found univariate skew of 2.57 and kurtosis of 7.92, both outside the generally accepted range of normality. We address this issue in the form of our method of estimation; further discussion of this issue follows. Next, the coefficient alpha reliability estimate was calculated ($\alpha = 0.94$) in order to assess the internal consistency of the scale. This value is well within the recommended range for reliabilities (Lance, Butts, & Michels, 2006; Nunnally, 1970), and no items significantly reduced the reliability.

Dimensionality of ODD

To address the question of the dimensionality of ODD posed by Research Question 1, we tested several competing theoretical models based on the existing deviance literature. We used LISREL 8.0 (Jöreskog & Sörbom, 2004) to conduct confirmatory factor analyses (CFA) on the 43 ODD items. Because the data violated the assumption of normality, robust maximum likelihood was used, as recommended by Satorra and Bentler (1988). Five models were tested: Model 1, a general factor model in which all items loaded onto a single latent factor; Model 2, a

two-factor model in which items were divided based on their criminal status (e.g., “Illegally carried or used a weapon” for criminal behavior and “Had an extramarital affair” for noncriminal behavior); Model 3, a two-factor model in which items were categorized according to whether the behavior targeted an individual directly (e.g., “Threatened to physically hurt someone”) or not (e.g., “Cheated on taxes”); Model 4, a two-factor model where items were divided based on their severity (e.g., “Hurt someone so badly they needed medical attention” for severe, and “Stolen something worth less than \$20” for less severe); and Model 5, in which items were divided by the type of deviance and loaded onto five latent factors: drug- and alcohol-related deviance (e.g., “Driven while intoxicated”), sexual deviance (e.g., “Solicited a prostitute”), violence (e.g., “Slapped, hit, or struck someone”), theft/fraud (e.g., “Stolen someone’s identity”), and organizationally-related deviance (e.g., “Used your company email/computer for something you would not want your boss to know about”). Fit statistics for these models can be found in Table 3.

Model 1 demonstrated acceptable absolute fit, suggesting the strong presence of a general deviance factor. However, the scaled chi-square difference tests (Satorra & Bentler, 1988) revealed that Models 2-5 fit the data significantly better than the single factor model. Each of those four models is nested within Model 1, and therefore can be compared in this way using the chi-square difference test; however, Models 2-5 are not nested within one another. Models 2, 3, and 4 have the same number of indicators and latent factors (and therefore the same number of estimated elements and the same degrees of freedom), but they differ in that the items load in different patterns onto those latent factors and cannot be compared meaningfully using their chi-square values. Model 5 has a different number of latent variables (and therefore fewer degrees of freedom), but it is not nested within any of the two factor models, in that fixing no number of

paths in the model will reproduce any of the two-factor models. Thus, we turned to the Akaike Information Criterion (AIC), which allows for the testing of nonnested models, where the lower value indicates superior fit. Model 5 yields the lowest AIC value, making it the optimal model. In response to Research Question 1, we found that the best-fitting of the theoretical models was a five-factor structure made up of types of deviance rather than a general factor, or structures driven by the criminality, severity, or interpersonal nature of the deviance.

Although the fit of Model 5 was acceptable, we examined the results of the CFA for any misfitting items. Five items were deleted based on model parameters and modification indices, such as low factor loadings, abnormally high uniquenesses or high crossloadings (James, Mulaik, & Brett, 1982). The final measure (see Appendix 3) included 38 items. The fit of this final model was satisfactory (Scaled $\chi^2(655) = 1989.02$, CFI = .98, TLI = .98, RMSEA = .062, SRMR = .035, AIC = 2161.02). After finalizing the scale we reevaluated the reliability of the scale. The new coefficient alpha for the whole measure was .95. Reliabilities of the subscales were also acceptable, with coefficients alpha of .78, .90, .88, .89, and .87 for drug/alcohol deviance, sexual deviance, violence, theft, and organizationally-directed deviance, respectively.

The Relationship Between ODD and CWB

In order to advance our understanding of ODD, it is important to evaluate whether off-duty and on-duty deviance are actually the same construct, or whether they are distinct from one another. We first noted that the correlation between ODD and CWB was large and statistically significant, at .68 ($p < .01$). This relationship supports Hypothesis 1, which states that ODD relates positively to CWB.

Research Question 2 addressed whether ODD and CWB were distinct constructs. To address this question, we examined CFA models of CWB and ODD. In Model 1, the general

factor model, ODD and CWB items were loaded onto a single factor. In Model 2, the ODD and CWB items were loaded onto two separate latent factors, which were permitted to correlate. Fit information for these models can be found in Table 5. The fit of the single-factor model was significantly worse than that of the two-factor model (Δ scaled $\chi^2(1) = 839.36, p < .01$), indicating that ODD and CWB are, in fact, distinguishable constructs. In response to Research Question 2, we conclude that off- and on-duty misconduct are not merely manifestations of the same construct, but are theoretically and empirically distinguishable from one another.

After revisiting the theoretical differences between CWB and ODD in light of their distinctness, we considered that the organizationally-directed behaviors contained in the ODD scale may actually be more strongly associated with CWB. In Model 3, the organizationally-directed items were loaded onto the CWB latent factor. This two-factor model also provided a better fit to the data than the single factor model (Δ scaled $\chi^2(1) = 834.39, p < .01$). Further, based on the comparison of the AIC, Model 3 provided a slightly better fit than Model 2, in which organizationally-directed off-duty items were loaded onto the ODD latent factor. We concluded that organizationally-directed off-duty misconduct might relate to both overall constructs and might obscure differences or contaminate the item pool. Accordingly, we ran Models 4 and 5, in which the organizationally-directed ODD items were excluded altogether. Model 4 constrained the correlation between ODD and CWB to unity while Model 5 allowed them to vary. Again, the two-factor model resulted in a significant improvement in fit (Δ scaled $\chi^2(1) = 818.66, p < .01$).

Accordingly, we removed the organizational subscale from the ODD measure, including it instead as an addendum. The final scale is comprised of 33 items that made up a 4-factor model of ODD, and can be found in Appendix 3. This model provided an excellent fit to the data (Scaled $\chi^2(489) = 1089.05, CFI = .99, TLI = .99, RMSEA = .05, SRMR = .06, AIC = 1225.95$).

After removing the organizationally-directed items, the correlation between ODD and CWB dropped from .68 to .64. See Table 4 for correlations between ODD, CWB, and their respective subscales, as well as means and standard deviations of study variables.

Table 2.

Means and standard deviations of ODD items

Item	<i>Sample 1</i>		<i>Sample 2 Time 1</i>		<i>Sample 2 Time 2</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1. Consumed so much alcohol that you became intoxicated? ^a	2.75	1.63	2.40	1.58	2.39	1.42
2. Shared substance-related material on a social media website?	1.36	.85	1.16	.55	1.22	.78
3. Been intoxicated in public places?	1.89	1.31	1.62	1.11	1.66	1.12
4. Driven while intoxicated?	1.40	.88	1.45	.84	1.43	.86
5. Used, possessed, or sold marijuana?	1.73	1.36	1.31	.91	1.24	.76
6. Used, possessed, or sold a drug other than marijuana (e.g., cocaine, ecstasy)?	1.32	.92	1.12	.53	1.07	.42
7. Gambled illegally?	1.23	.72	1.11	.56	1.09	.49
8. Had an extramarital affair?	1.20	.62	1.05	.30	1.05	.29
9. Shared sexual material on a social media website?	1.26	.79	1.14	.56	1.11	.53
10. Taken or posed in nude or sexual photographs/videos?	1.47	1.02	1.16	.64	1.16	.56
11. Sent nude or sexual photos/videos over email or text message?	1.46	.99	1.18	.67	1.19	.67
12. Made unwanted sexual advances on someone (e.g., kissing, touching)?	1.16	.54	1.04	.28	1.02	.23
13. Had sex with a minor?	1.14	.56	1.02	.21	1.02	.16
14. Solicited a prostitute?	1.14	.56	1.03	.23	1.03	.24
15. Possessed illegal pornography?	1.14	.61	1.03	.23	1.03	.26
16. Been nude in public where it was illegal to do so?	1.14	.55	1.03	.23	1.05	.30
17. Engaged in sexual acts in public?	1.24	.64	1.12	.45	1.05	.26
18. Pushed someone?	1.54	.94	1.16	.50	1.23	.61
19. Threatened to physically hurt someone?	1.53	.98	1.15	.46	1.20	.61
20. Yelled at someone? ^a	2.78	1.34	2.14	1.28	2.29	1.25
21. Purposefully injured or neglected an animal?	1.21	.71	1.03	.25	1.02	.18
22. Shared violent material on a social media website?	1.22	.73	1.03	.19	1.05	.32
23. Used language that is derogatory towards women or minorities?	1.68	1.27	1.20	.72	1.28	.78
24. Slapped, hit, or struck someone?	1.42	.81	1.17	.55	1.21	.58

^a Items removed based on psychometric evaluation and not retained in final measure^b Items that reflect the organizationally-directed factor of deviance; this subscale was not included in the final analyses but remains as an addendum to the scale

Table 2, continued.

Item	Sample 1		Sample 2 Time 1		Sample 2 Time 2	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
25. Hurt someone so badly they needed medical attention?	1.12	.50	1.02	.23	1.03	.25
26. Illegally carried or used a weapon?	1.20	.71	1.03	.25	1.04	.26
27. Purposely damaged or destroyed property that did not belong to you?	1.23	.71	1.04	.30	1.05	.35
28. Broken into a building or vehicle that did not belong to you?	1.15	.56	1.03	.27	1.03	.27
29. Accepted or paid a bribe?	1.18	.64	1.04	.28	1.03	.19
30. Filed for bankruptcy?	1.15	.50	1.10	.46	1.09	.42
31. Stolen something worth less than \$20?	1.38	.88	1.12	.44	1.14	.50
32. Stolen something worth more than \$20?	1.25	.77	1.05	.28	1.06	.34
33. Cheated on taxes?	1.19	.62	1.08	.34	1.12	.51
34. Engaged in fraudulent behavior (e.g., written bad checks, filing a false insurance claim)?	1.17	.62	1.05	.30	1.04	.32
35. Stolen someone's identity (e.g., used a credit card that was not yours)?	1.11	.49	1.03	.27	1.02	.21
36. Said something negative about the company you work for? ^b	2.64	1.48	2.17	1.36	2.22	1.34
37. Said something negative your supervisor or coworkers? ^b	2.62	1.46	2.37	1.41	2.27	1.37
38. Been romantically or sexually involved with someone from work (e.g., coworker, client)? ^b	1.39	.85	1.10	.39	1.08	.33
39. Shared information about your company that was supposed to be private? ^b	1.43	.87	1.29	.70	1.31	.71
40. Used your company email/computer for something you would not want your employer to know about? ^b	1.50	1.06	1.49	1.07	1.33	.84
41. Driven your car more than 15 miles over the speed limit? ^a	2.60	1.48	3.02	1.59	2.84	1.43
42. Run a red light? ^a	1.83	1.03	1.89	.95	1.87	.85
43. Not worn a seatbelt in a car? ^a	1.88	1.34	1.74	1.29	1.69	1.09

^a Items removed based on psychometric evaluation

^b Items that reflect the organizationally-directed factor of deviance; this subscale was not included in the final analyses but remains as an addendum to the scale

Table 3.

Goodness of fit indices and model comparisons of ODD factor structure

Model	Scaled χ^2	df	CFI	TLI	RMSEA	SRMR	AIC
1. 1-factor (General)	3278.65*	860	.97	.97	.074	.043	3450.65
2. 2-factor (Criminal)	3249.79*	859	.97	.97	.074	.042	3423.79
3. 2-factor (Interpersonal)	3274.25*	859	.97	.97	.074	.043	3448.25
4. 2-factor (Severity)	3261.24*	859	.97	.97	.074	.043	3435.24
5. 5-factor (Type of ODD)	3040.46*	850	.97	.97	.071	.042	3232.46
6. 5-factor (5 items deleted)	1989.02	655	.98	.98	.062	.035	2161.02
7. Final 4-factor model (Type of ODD no Org)	1089.95*	489	.99	.99	.049	.058	1225.95
Model Comparisons	Δ Scaled χ^2	Δ df					
1 versus 2	28.86*	1					
1 versus 3	4.41*	1					
1 versus 4	17.41*	1					
1 versus 5	238.19*	10					

N = 509

* $p < .05$

Scaled χ^2 = Satorra-Bentler scaled chi-square test statistic; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; AIC = Akaike information criterion.

Note: The Satorra-Bentler scaled chi-square cannot be compared with a traditional chi-square test. This Δ Scaled χ^2 is computed using the scaled and unadjusted chi-square values of the two models being compared.

Table 4.

Means, standard deviations, and intercorrelations of focal variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. ODD Total	1.33	0.50	(0.95)								
2. ODD Drugs	1.67	0.75	0.82**	(0.78)							
3. ODD Sex	1.21	0.50	0.91**	0.62**	(0.90)						
4. ODD Violence	1.26	0.56	0.93**	0.70**	0.78**	(0.88)					
5. ODD Theft	1.20	0.51	0.90**	0.65**	0.81**	0.80**	(0.89)				
6. ODD Org	2.04	0.93	0.57**	0.50**	0.47**	0.57**	0.48**	(0.87)			
7. CWB Total	2.10	1.00	0.64**	0.50**	0.55**	0.65**	0.60**	0.59**	(0.92)		
8. CWBI	1.92	1.13	0.59**	0.41**	0.52**	0.61**	0.53**	0.47**	0.87**	(0.89)	
9. CWBO	2.20	1.07	0.60**	0.48**	0.50**	0.59**	0.56**	0.59**	0.95**	0.67**	(0.88)

N=509

Coefficient alpha reliabilities are in parentheses

** p < .01 * p < .05

Table 5.

Fit indices and model comparisons for discriminant validity of ODD and CWB

Model	Scaled χ^2	df	CFI	TLI	RMSEA	SRMR	AIC
8. 1-factor (General)	5551.40*	1484	.81	.80	.073	.097	65933.8
9. 2-factor (Org on ODD)	4712.04*	1483	.90	.88	.065	.085	64315.4
10. 2-factor (Org on CWB)	4717.01*	1483	.89	.88	.065	.087	64311.9
11. 1-factor (Org Excluded)	4506.52*	1224	.84	.83	.073	.095	58748.4
12. 2-factor (Org Excluded)	3687.86*	1223	.93	.92	.063	.079	57083.2
Model Comparisons	Δ Scaled χ^2	Δ df					
1 versus 2	839.36*	1					
1 versus 3	834.39*	1					
4 versus 5	818.66*	1					

N = 509

* $p < .01$

Scaled χ^2 = Satorra-Bentler scaled chi-square test statistic; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; AIC = Akaike information criterion.

Note: The Satorra-Bentler scaled chi-square cannot be compared with a traditional chi-square test. This Δ Scaled χ^2 is computed using the scaled and unadjusted chi-square values of the two models being compared.

CHAPTER 4

STUDY 1 DISCUSSION

The goal of the first study was to determine the nature of the relationship between on- and off-duty misconduct. In order to do so, we developed a content valid measure of ODD and established its internal structure as comprised of four dimensions: substance-related behavior, sexual deviance, theft, and violence. Using that measure we evaluated the overlap between ODD and CWB and found them to be highly related but also distinct. We elaborate on these findings in the second study by exploring the respective predictors of deviance on and off the job. Further, we investigate which of the four types of ODD are most related to misconduct on the job, and also whether organizational attitudes may buffer against deviance manifesting in the workplace.

CHAPTER 5

STUDY 2 METHOD

Participants and Procedure

Potential participants for Sample 2 were recruited through students from a large southeastern university. In exchange for course credit, students provided e-mail addresses for three adults employed full-time who were willing to participate in a research study. Once willing participants were identified, a recruitment email was sent, which included a link to the Time 1 online survey. Reminder emails for the first survey were sent to non-responding participants five and ten days after the initial survey email was sent. Approximately three weeks after the participant completed the Time 1 survey, an email with a link to the Time 2 survey was sent. Reminder emails for the second survey were again sent to non-responding focal participants at five and ten days after the second survey email is sent. To ensure confidentiality, surveys collected at Time 1 and Time 2 were matched through numerical identifiers assigned by the online system.

The undergraduate students recruited an initial pool of 511 potential participants, who were sent links to the Time 1 survey, which included measures of included measures of ODD, CWB, self-control, personality, and job attitudes. Of these individuals, 253 completed the Time 1 survey, for a response rate of nearly 50 percent. We sent an email with a link to the Time 2 survey to these 253 participants approximately three weeks after they completed the first survey. ODD, CWB, social desirability, and demographic information were assessed at Time 2. Reminder emails for the second survey were again sent to non-responding participants at five

and ten days after the second survey email was sent. Of the 254 Time 1 participants, 188 returned usable Time 2 survey, for a response rate of 74.3 percent. This final group represents nearly 37 percent of the initial pool of eligible individuals recruited by undergraduates to participate. The cross-validation and substantive analyses were conducted on data from the 188 participants who completed both Time 1 and Time 2 surveys. Of this final sample of participants, 55 percent were female. The average age of the sample was 44.53 years. Participants had an average of 8.28 years of tenure at their current employer, and supervised an average of 4.07 employees, with 56 percent supervising no employees (see Table 1).

Measures

ODD. ODD was measured with the measure developed in Study 1.

CWB. CWB was measured with the same instrument (Bennett & Robinson, 2000) as in Study 1.

FFM. Personality aspects of the five-factor model were assessed with the International Personality Item Pool (IPIP; Goldberg, 1999), a 50-item scale comprised of 5 dimension subscales of ten items each. Sample items include “Am exacting in my work” (conscientiousness), “Am full of ideas” (intellect/imagination), “Sympathize with others’ feelings” (agreeableness), “Am relaxed most of the time” (emotional stability), and “Make friends easily” (extraversion). All items use a 5-point Likert scale where 1 = *very inaccurate* and 5 = *very accurate*. Note that the extraversion and intellect/imagination subscales were not included in any analyses for hypothesis testing.

Dark Triad. The dark triad was assessed using the 27-item Short Form 3 of the Dark Triad (Paulhus & Williams, 2002). Sample items include “Those with talent and good looks should not hide them” (narcissism); “Whatever it takes, you must get the important people on

your side” (Machiavellianism); and “Payback needs to be quick and nasty” (psychopathy).

Response anchors range from 1 = *strongly disagree* to 5 = *strongly agree*.

Self-control. The Brief Self-Control Scale (Tangney, Baumeister, & Boone, 2004) was used to address self-control. The measure is made up of two four-item subscales, restraint (e.g., “I have a hard time breaking bad habits”) and impulsivity (e.g., “I often act without thinking through all the alternatives”). Scale points range from 1 (*not at all like me*) to 5 (*very much like me*).

Job satisfaction was measured using the 5-item Job Satisfaction Scale (Brayfield & Roethe, 1951). This is a global measure of job satisfaction and assesses the extent of agreement with statements such as “I find real enjoyment in my work” and “Each day at work seems like it will never end.” Scale points range from 1 = *strongly disagree* to 5 = *strongly agree*.

Affective commitment was measured with an 8-item subscale of Meyer & Allen’s (1984) commitment measure. Affective commitment items include “This organization has a great deal of personal meaning for me” and “I really feel as if this organization's problems are my own,” and responses range from 1 = *strongly disagree* to 5 = *strongly agree* on a Likert scale.

Procedural justice was measured with the 6-item scale by Niehoff & Moorman (1993). Sample items include “Job decisions are made by the employer in an unbiased manner” and “Employees are allowed to challenge or appeal job decisions made by the employer.” The Likert scale ranges from 1 = *strongly disagree* to 5 = *strongly agree*.

CHAPTER 6

STUDY 2 RESULTS

Cross-Validation of ODD Measure

First, we examined the means and standard deviations of the ODD items (see Table 2). Because modifications were made to the scale based on data from Study 1, we cross-validated the fit of the final 4-factor model and found good fit (scaled $\chi^2(489) = 720.97$, CFI = .98, TLI = .98, RMSEA = .04, SRMR = .06, AIC = 880.97). Scale reliability was also acceptable with coefficient alpha of .92.

Predictors of Off- and On-Duty Deviance

To gain a deeper understanding of ODD and its relationship with CWB we investigate their shared and differential predictors. Hypotheses 2 through 8 predicted that personality variables (self-control, agreeableness, conscientiousness, emotional stability, narcissism, Machiavellianism, and psychopathy) would be significantly related to both ODD and CWB. Hypothesis 9 stated that job attitudes (job satisfaction, affective commitment, and procedural justice) would relate more strongly to CWB than to ODD. These analyses were conducted on data from Sample 2, from which antecedents collected at Time 1 were related to criteria collected at Time 2. A full correlation matrix, as well as means and standard deviations of focal study variables, can be found in Table 6.

The correlational analyses lend support to the hypothesized pattern, where aspects of personality are proposed to predict deviance both at work and away from work, whereas job attitudes are expected to relate more strongly to on-duty deviance. Personality variables

consistently predicted ODD: with the exception of emotional stability, all personality variables correlated significantly with ODD. Each of the personality traits demonstrated a significant correlation with CWB. Additionally, commitment, job satisfaction, and justice perceptions all correlated significantly with CWB. Commitment and satisfaction, but not justice, correlated significantly with ODD, but these correlations were considerably weaker than their relationships with CWB. Tests of correlated correlations (Meng, Rosenthal, & Rubin, 2002) revealed that job satisfaction correlated significantly more strongly with CWB than ODD ($p < .05$), as did affective commitment ($p < .05$) and procedural justice ($p < .05$).

The hypotheses were formally tested using a structural equation model (SEM) that examined the relationships of personality and attitudinal constructs with ODD and CWB. The seven personality variables and three job attitude variables (all measured at Time 1) were specified as exogenous variables and ODD and CWB (measured at Time 2) were specified as endogenous variables. Because of the large number of indicators, we used the single-indicator approach (Kline, 2010), wherein each of the predictors was defined by a composite (i.e., average of item scores) loaded into its respective latent variable; the factor loading fixed to the square root of its reliability and the error/uniqueness of the latent factor to be equal to one minus the reliability. Because we were interested in the more complex structure of the two criteria, ODD and CWB, the latent endogenous variables were estimated by using the scale composites (i.e., violence, theft, sexual, and substance-related subscales of ODD, and interpersonal and organizational subscales of CWB) as indicators.

In the target model, the relationships between personality variables and ODD were free to be estimated but the relationship between job attitudes and ODD were constrained to be zero; the paths from all ten predictors to CWB were allowed to be estimated. A summary of these effects

may be found in Table 7. ODD was positively related to psychopathy ($\beta = .39$, $SE = .17$, $p < .05$) and CWB was negatively related to self-control ($\beta = -.47$, $SE = .22$, $p < .05$) and affective commitment ($\beta = -.41$, $SE = .20$, $p < .05$). We compared this model to a fully saturated model, wherein the relationships between job attitudes and ODD were made free to be estimated. Again, ODD was predicted by psychopathy ($\beta = .33$, $SE = .17$, $p < .05$), and CWB was significantly predicted by self-control ($\beta = -.49$, $SE = .22$, $p < .05$) and affective commitment ($\beta = -.47$, $SE = .22$, $p < .05$). We examined the overall fit of these models (Table 8) and the scaled chi-square difference test (Satorra & Bentler, 1988) revealed that the more parsimonious target model did not result in a significant decrement in fit ($\Delta \text{scaled } \chi^2(3) = 3.33$, $p = .34$). Accordingly, we find support for Hypotheses 8a and 2b: psychopathy predicted ODD and self-control predicted CWB. There was also partial support for Hypothesis 9: while, of the three job attitudes, only affective commitment emerged as a significant predictor of CWB, all three were unrelated to ODD.

In sum, in the hypothesized structural model ODD was predicted only by psychopathy, and CWB by only self-control and affective commitment. Despite significant and strong bivariate correlations between the remaining personality variables and both outcomes, as well as between the remaining job attitudes and CWB, those paths were nonsignificant. Given the high intercorrelations among the personality variables and also among the job attitudes (mean absolute value correlation of .27 among personality variables and .51 for job attitudes), a likely explanation for these null findings may be suppression among the predictors. Thus, while not all the proposed antecedents remained significant when contained in a single model, these results are consistent with the hypothesized nomological network: that both ODD and CWB were related to aspects of personality but job attitudes predicted CWB more strongly.

When are ODD and CWB Most Strongly Related?

In response to the third research question, we next used multiple regression to determine which facets of ODD relate most strongly with CWB. Using Sample 2 data, we regressed CWB onto the four ODD subscales; see Table 9 for results. Both the substance-related and violence subscales were significant ($\beta = .25, p < .01$ and $\beta = .30, p < .01$, respectively), but sexual deviance and theft did not predict CWB over and above violent and substance-related deviance.

Finally, we were interested in whether positive job attitudes could buffer the impact of the likelihood that a tendency toward deviance would manifest in the workplace. Hypotheses 10a, b, and c, predicted that affective commitment, job satisfaction, and procedural justice, respectively, would moderate the relationship between ODD and CWB such that the relationship is weaker when job attitudes are positive. As recommended by Aiken and West (1991), predictors were mean centered; then interaction terms were created for ODD with commitment, job satisfaction, and justice. In the first step, CWB was regressed onto ODD and one of the three job attitudes, and the interaction term was entered in the second step.

Results of these analyses (Table 10) showed that procedural justice, but not commitment or satisfaction, moderated the relationship between ODD and CWB. The coefficient of the moderator was significant ($\beta = -.22, p < .05$), and the addition of the term resulted in a significant increase in variance predicted ($\Delta R^2 = .04, p < .05$). In order to examine this effect, we calculated and plotted the simple slopes (Aiken & West, 1991; Figure 2). At low levels (i.e., one standard deviation below the mean) of procedural justice, the slope of the relationship between ODD and CWB is 2.14 (SE = .21), and 1.06 (SE = .15) at high levels of justice. Both slopes were different from zero ($p < .05$), but the relationship at low levels of justice was significantly stronger than that at high levels.

Table 6.

Means, standard deviations, and intercorrelations of focal variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. ODD Total	1.19	0.27	(0.92)								
2. ODD Drugs	1.29	0.50	0.79**	(0.71)							
3. ODD Sex	1.07	0.25	0.88**	0.56**	(0.84)						
4. ODD Violence	1.11	0.29	0.89**	0.54**	0.76**	(0.83)					
5. ODD Theft	1.07	0.25	0.84**	0.52**	0.75**	0.78**	(0.80)				
6. ODD Org	1.63	0.66	0.37**	0.41**	0.31**	0.31*	0.23**	(0.80)			
7. CWB Total	1.63	0.58	0.63**	0.53**	0.58**	0.57**	0.47**	0.57**	(0.85)		
8. CWBI	1.67	0.77	0.54**	0.39**	0.51**	0.54**	0.38**	0.44**	0.83**	(0.80)	
9. CWBO	1.61	0.60	0.58**	0.53**	0.52**	0.49**	0.44**	0.55**	0.91**	0.53**	(0.79)
10. Agreeableness	4.16	0.51	-0.30**	-0.17*	-0.27**	-0.33**	-0.27**	-0.12	-0.29**	-0.35**	-0.18**
11. Conscientiousness	3.91	0.67	-0.14*	-0.14	-0.05	-0.16*	-0.08	-0.15*	-0.21**	-0.12**	-0.23**
12. Emotional Stability	3.48	0.75	-0.10	-0.08	-0.09	-0.12	-0.04	-0.19*	-0.16**	-0.12*	-0.16**
13. Self Control	3.41	0.80	-0.26**	-0.31**	-0.15*	-0.22**	-0.17*	-0.36**	-0.38**	-0.27**	-0.37**
14. Narcissism	3.04	0.52	0.19*	0.15*	0.19*	0.18*	0.14	0.20**	0.23**	0.18**	0.22**
15. Machiavellianism	2.96	0.52	0.21**	0.22**	0.20**	0.18*	0.11	0.07	0.16*	0.15*	0.13*
16. Psychopathy	1.78	0.60	0.44**	0.36**	0.38**	0.42**	0.29**	0.23**	0.41**	0.46**	0.29**
17. Job Satisfaction	3.95	0.84	-0.17*	-0.12	-0.11	-0.20**	-0.11	-0.27**	-0.27**	-0.18**	-0.29**
18. Affective Commitment	3.55	0.91	-0.16*	-0.12	-0.13	-0.21**	-0.13	-0.35**	-0.31**	-0.24**	-0.30**
19. Procedural Justice	3.14	1.05	-0.03	-0.03	-0.04	-0.04	0.06	-0.35**	-0.20*	-0.19**	-0.16*

N=187

Coefficient alpha reliabilities are in parentheses

** p < .01 * p < .05

Note: Criteria (i.e., ODD and CWB and their respective subscales) are measured at Time 2; personality and job attitudes are measured at Time 1

Table 6, continued.

Variable	10	11	12	13	14	15	16	17	18	19
10	(0.81)									
11	0.26**	(0.83)								
12	0.12	0.28**	(0.89)							
13	0.19**	0.57**	0.43**	(0.84)						
14	-0.08	-0.09	-0.34**	-0.29**	(0.60)					
15	-0.03	-0.07	-0.07	-0.20**	0.20**	(0.64)				
16	-0.48**	-0.34**	-0.23**	-0.50**	0.31**	0.32**	(0.77)			
17	0.25**	0.17*	0.19*	0.15	-0.28**	-0.08	-0.30**	(0.85)		
18	0.16*	0.10	0.10	0.09	-0.21**	0.04	-0.23**	0.66**	(0.87)	
19	0.13	0.12	0.09	0.15*	-0.15*	0.06	-0.16*	0.33**	0.53**	(0.90)

N=187

Coefficient alpha reliabilities are in parentheses

** $p < .01$ * $p < .05$

Note: Criteria (i.e., ODD and CWB and their respective subscales) are measured at Time 2; personality and job attitudes are measured at Time 1

Table 7.

Effects of personality and job attitudes on ODD and CWB

	Target Model		Fully Saturated Model	
	ODD	CWB	ODD	CWB
	β (SE)	β (SE)	β (SE)	β (SE)
Self Control	0.21 (.13)	-0.47* (.22)	0.16 (.14)	-0.49* (.22)
Conscientiousness	-0.06 (.10)	0.13 (.15)	-0.05 (.09)	0.14 (.15)
Emotional Stability	-0.04 (.06)	0.08 (.10)	-0.03 (.06)	0.08 (.11)
Agreeableness	-0.19 (.12)	-0.23 (.17)	-0.23 (.12)	-0.25 (.18)
Narcissism	0.13 (.09)	0.07 (.16)	0.14 (.09)	0.08 (.16)
Machiavellianism	0.06 (.09)	0.13 (.13)	0.07 (.08)	0.14 (.13)
Psychopathy	0.39* (.17)	0.00 (.29)	0.33* (.16)	-0.03 (.31)
Affective Commitment	-	-0.41* (.20)	-0.11 (.13)	-0.47* (.22)
Job Satisfaction	-	0.08 (.18)	0.05 (.13)	0.12 (.21)
Procedural Justice	-	0.05 (.10)	0.09 (.10)	0.09 (.12)

N = 187

* p < .05

Note: Parameter estimates and standard errors are based on a maximum likelihood estimation method that is robust to nonnormality (Satorra & Bentler, 1988).

Table 8.

Fit indices and model comparisons for structural models

Model	Scaled χ^2	df	CFI	TLI	RMSEA	SRMR
1. Fully saturated model	93.49*	48	.962	.904	.071	.040
2. Target model	96.82*	51	.961	.909	.069	.040
Model Comparison	Δ Scaled χ^2	Δ df				
1 versus 2	3.33	3				

N = 187

* $p < .01$

Scaled χ^2 = Satorra-Bentler scaled chi-square test statistic; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Note: The Satorra-Bentler scaled chi-square cannot be compared with a traditional chi-square test. This Δ Scaled χ^2 is computed using the scaled and unadjusted chi-square values of the two models being compared.

Table 9.

Regression of CWB onto ODD subscales

ODD Subscale	CWB	
	<i>b</i> (SE)	β
Drugs/Alcohol	0.29* (.13)	0.25*
Sexual	0.36 (.40)	0.17
Violence	0.69* (.36)	0.30*
Theft	0.02 (.38)	0.01
R^2		.387*

* $p < .05$
 N = 187

Table 10.

Moderation effects of job attitudes on the ODD-CWB relationship

	CWB			
	Step 1		Step 2	
	<i>b</i> (SE)	β	<i>b</i> (SE)	β
ODD	1.47** (.14)	.61	1.53** (.17)	.64
AC	-.09* (.04)	-.13	-.09* (.04)	-.14
ODD x AC	-	-	.17 (.21)	.05
R^2 (F for ΔR^2)	.415		.415 (.10)	
	Step 1		Step 2	
	<i>b</i> (SE)	β	<i>b</i> (SE)	β
	ODD	1.41** (.12)	.64	1.34** (.16)
JS	-.11** (.04)	-.15	-.10** (.03)	-.15
ODD x JS	-	-	-.07 (.16)	-.03
R^2 (F for ΔR^2)	.464		.467 (.20)	
	Step 1		Step 2	
	<i>b</i> (SE)	β	<i>b</i> (SE)	β
	ODD	1.46** (.11)	.66	1.60** (.12)
PJ	-.10** (.03)	-.17	-.08** (.03)	-.15
ODD x PJ	-	-	-.52 (.13)	-.22
R^2 (F for ΔR^2)	.472		.508 (16.33**)	

N = 187

** $p < .01$ * $p < .05$

AC = affective commitment; JS = job satisfaction; PJ = procedural justice

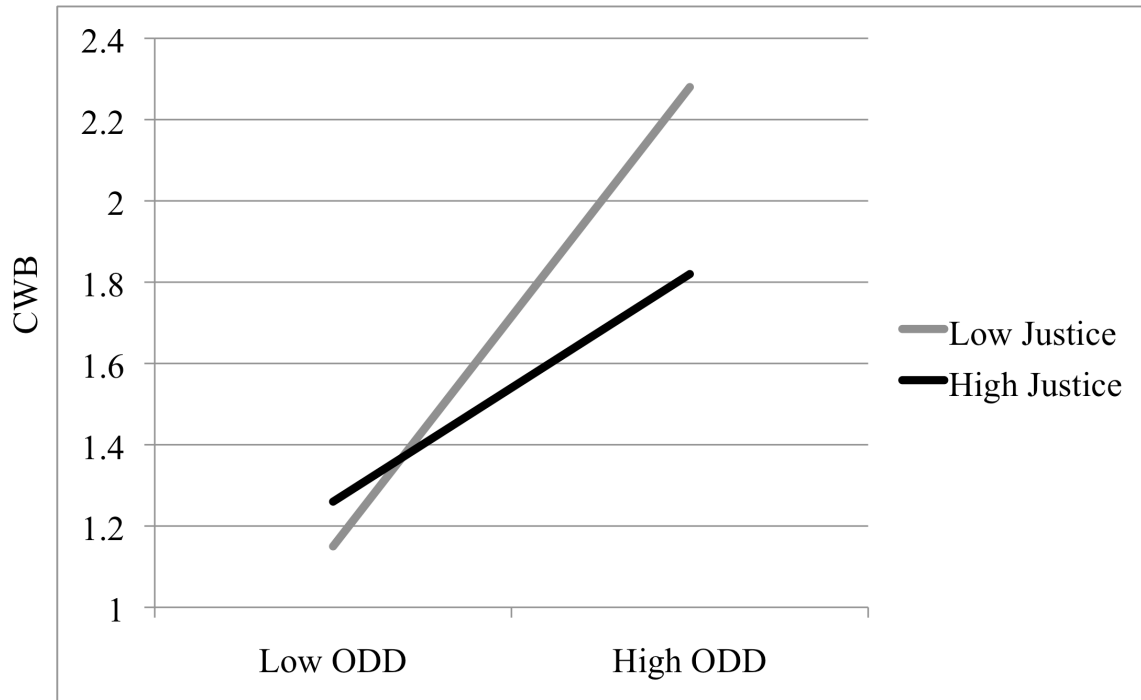


Figure 2.

CWB as a function of the interaction between ODD and procedural justice

CHAPTER 7

STUDY 2 DISCUSSION

This second study augmented the first by (a) crossvalidating the new measure with an independent sample obtained using different recruitment methods, (b) evaluating the overlapping nomological networks of ODD and CWB, and (c) investigating when ODD predicts CWB most strongly. We found strong support for the psychometric soundness of the measure, with satisfactory reliability and fit. Examination of the nomological network demonstrated that (with the exception of emotional stability) theoretically relevant personality traits correlated with ODD. Job satisfaction and affective commitment did correlate with ODD, but these correlations were significantly weaker than many of the correlations between personality and ODD, and were significantly lower than the correlations between those attitudes with CWB. When tested in a full structural model, job attitudes did not improve predictions of ODD, but affective commitment did predict CWB. Finally, we found that violent and substance-related ODD were most likely to manifest in deviance on the job, and that the relationship between ODD and CWB was weakened when justice perceptions were favorable.

CHAPTER 8

GENERAL DISCUSSION

This study provides the first comprehensive analysis of employee ODD and the potential for ODD to manifest in at-work deviance. We also examined conditions under which ODD relates most strongly to CWB: type of ODD and job attitudes were identified as factors that influence the extent to which deviance is consistent across situations. The study accomplished two overarching goals: first, we aimed to clarify the nature of deviance away from work. Toward that end, we (a) developed a representative measure of ODD behaviors relevant to organizations; (b) determined that its underlying structure is multidimensional, comprised of different classes of misconduct; (c) established that it is highly related to but distinguishable from at-work deviance; and (d) demonstrated that individual differences consistently predict deviance across situations but organizational attitudes predict at-work deviance more strongly than deviance away from work. Second, we sought to determine the strength and boundary conditions of the relationship between off- and on-duty deviance. Our results suggest that misconduct away from work is highly likely to manifest in deviance at work, but also reveal potential strategies organizations may use to reduce counterproductivity. Based on our findings from two representative samples, we begin to identify practical approaches for predicting and managing ODD.

Measuring ODD

Existing management research on off-duty behavior has explored out of work behavior primarily through background checking, drug testing, and anecdotal analysis. These proxies for deviance capture only a narrow array of behaviors and are often based on single incidents.

Criminal behavior inventories are inconsistent across studies and sometimes involve disparate methods like interviews or open-ended responses. Further, many of these instruments have not been subjected to evaluation through rigorous factor analytic procedures. The ODD scale developed here represents a representative, multidimensional, and psychometrically sound scale that is better positioned than existing proxies to examine ODD's relationships with individual and work variables.

The dimensionality of deviance, particularly the presence of a general factor (Gottfredson & Hirschi, 1990; Hindelang et al. 1981; LeBlanc & Bouthillier, 2003) has been the source of great debate in the field. The well-fitting single-factor CFA model and high intercorrelations among the subscales provide compelling evidence of a strong general factor. For this reason, we found it appropriate to use the overall sum score (rather than individual subscales) in our analyses. However, our results support a multifaceted or hierarchical framework over a strict general factor conceptualization of ODD: the general-factor model did not perform as well as any of the multi-factor models, particularly the optimal model made up of violence, theft, sexual, and substance-related deviance. Despite the strong relationships among the subscales, they relate differently with other variables and examining those differences may yield interesting results as well.

Finally, very few studies have measured out of work deviance in organizational samples. The generalizability of the study is strengthened by the two different ecologically valid used; a few characteristics are worth mentioning. Sample 1 was younger, reported lower levels of income, and reported slightly higher mean levels of deviance. Criminology research has documented the inverse relationship between age and deviance (Tittle et al., 2003). Slightly more controversial is the relationship between socioeconomic status and deviance (Heimer, 1997), but

aggregated results have demonstrated an empirical link (Box, 1987). Accordingly, it is logical that higher levels of deviance would be observed in Sample 1, and this higher base rate facilitated the original evaluation of the psychometric properties of the scale items. Sample 2 participants, alternately, were more likely to have supervisory roles, longer tenure at their organization, and higher income. To the extent that this sample more closely resembles the “average manager,” those results can be extrapolated to the working population.

The Relationship between CWB and ODD

This study contributes to the field by scrutinizing the relationship between on- and off-duty misconduct, and the conditions under which ODD may manifest in deviance at work. Cases of employee misconduct away from work demonstrate that ODD has the potential to harm both the employee and the organization as a whole in the form of termination, lawsuits, media scandals, and so forth (e.g., Dworkin, 1997; Griswold, 2011; Hebert, 2013; Leap, 1988; Little, 2011; Valentine et al., 2010). These behaviors are also of concern to organizations to the extent that misconduct away from work also manifests in deviance while at work. Many employers implement background checks ostensibly in part to reduce the amount of employee deviance on the job, but the true empirical relationship between deviance at work and away from work had yet to be established.

We used the newly developed measure to test the relationship between ODD and CWB and found a substantial correlation. Deviance was found to be relatively consistent across situations, and individuals deviant outside of work were substantially more likely to engage in counterproductive behavior on the job. Indeed, outside deviance was considerably more predictive of CWB than any aspect of personality or job attitudes. This finding is in contrast with the only previous attempt to link criminal behavior and CWB, which yielded mixed results:

Roberts et al. (2007) found that employees' adolescent diagnosis with conduct disorder predicted at-work deviance but criminal record did not. This null finding might be the result of issues in using a flawed measure of deviance: criminal convictions likely represent only a minute proportion of crimes, do not address noncriminal deviance, and may also be confounded with other individual variables (e.g., those with lower intelligence may be more likely to be caught and thus have a criminal record; Dilchert, Ones, Davis, & Rostow, 2007). Further, using background checks may result in range restriction: many individuals with criminal records prior to entering the workplace may be screened out entirely when background checks are included in selection procedures. Because our measure of ODD used self-report rather than official records, we were able to predict CWB using off-duty misconduct for which the individual was not arrested or convicted, as well as noncriminal behaviors for which no criminal record would exist. Using this broader operationalization of out of work deviance yielded a substantial relationship between off- and on-duty misconduct.

Despite the strong relationship between ODD and CWB, not all off-duty behaviors were equally predictive of counterproductivity on the job. While all four ODD subscales were related to CWB, substance-related deviance and violence contributed incremental prediction of employee CWB, while sexual deviance and theft did not add to the prediction. Given the strong general factor underlying these subscales, they likely predict overlapping variance in CWB, but violent and substance-related behaviors capture unique aspects of deviance that relates to counterproductive behavior on the job.

To further our understanding of the relationship between ODD and CWB, we examined overlapping but distinct nomological networks. Consistent with the criminology literature (which has relied heavily on trait-based models of deviance; Gottfredson & Hirschi, 1990; Le Corff &

Toupin, 2009), personality variables, thought to be fairly consistent across situations, predicted deviance at work and away from work. Individuals low in traits such as self-control, conscientiousness, and agreeableness or high in traits like psychopathy and narcissism were more likely to engage in deviant behavior wherever they happen to be, whether at work or not.

Although ODD and CWB are related and share antecedents, they two are not completely consistent, suggesting the presence of other explanatory factors. We proposed that job attitudes account for some of these differences. In support of that proposition, job attitudes related to CWB but demonstrated significantly weaker relationships ODD. This pattern indicates that by promoting satisfaction, commitment, and perceptions of justice, organizations may reduce the amount of CWB will not do much to reduce ODD. Alternately, employees with unfavorable job attitudes are likely to behave inappropriately toward their organization and coworkers, but are less likely to increase misconduct away from work. Although not all of the hypothesized paths were significant in our structural model of the nomological networks, the results did support the hypothesized pattern of similar and differential relationships of ODD and CWB and their antecedents.

Beyond this predictive relationship between job attitudes and CWB, we wondered whether organizational interventions to promote favorable job attitudes might buffer against organizational deviance. In other words, would a generally deviant individual suspend those tendencies while at work if they felt positively about their job? We found evidence that this may be the case: when organizational policies were perceived to be fair, employees who engaged in high levels of deviance outside of work were less likely to commit CWB.

Practical Implications

This study addresses behavior that is relevant to organizations but has been neglected in the management research. As evidenced by organizational policies regarding off-duty behavior (Kennedy et al., 2013) and termination of employees who engage in such behavior (Dexheimer 2013; Hebert, 2013; Valentine et al., 2010), organizations are concerned with ODD and employ strategies to manage it, but these strategies have been implemented without systematic investigation of these behaviors and their relationships with work variables. The present findings may inform organizational practice around off-duty misconduct, including (a) ODD's relationship with deviance at work, (b) the predictive validity of different ODD behaviors, and (c) the potential for organizations to limit employee deviance both at work and away from work.

First, there is compelling evidence that individuals who engage in deviance away from work will also engage in deviance at work. While this relationship is implicitly assumed in background checking and drug testing, it was previously unclear whether off-duty misconduct was unrelated to at-work behavior. For instance, unlike many organizations that explicitly regulate off-duty conduct (Kennedy et al., 2013), the head of IBM issued a statement that employees' off-the-job behavior is only of concern if it interferes with their performance (Leap, 1988). At least in terms of counterproductive behavior, these results suggest that outside deviance is more likely than not to correspond to negative work behaviors. Thus, in addition to the potential danger of ODD to an organization's reputation and legal standing, employee ODD is also likely to correspond with more direct costs in the form of on-duty deviance.

Second, not all types of off-duty misconduct are equally likely to predict deviance at work. From a selection perspective, it is informative to know what types of off-duty behaviors are red flags, and which might be less relevant to at-work behavior. While many ODD behaviors

may be of concern for reputational and legal considerations, to the extent that organizations implement background checks to limit on-duty misconduct, some outside behaviors may be more or less predictive and defensible. For instance, based on our findings that substance-related deviance predicts variance in CWB over and above other types of deviance, drug testing may be identified as a valid selection procedure, a topic that has been subject to heated debate (e.g., Alder, Schminke, & Noel, 2007; Comer, 1994). On the other hand, background checks may capture some less relevant predictors of CWB and omit germane behaviors. Drug-related and violent behaviors were the most predictive in our sample, but it is possible that the relevance of different ODD behaviors varies based on the sample in question. Our sample was comprised primarily of white, middle aged professionals. Certain behaviors might be considered deviant in this sample but not in others. For instance, in other parts of the country where the use of marijuana is being legalized, certain drug-related behaviors are legal and more normative and may be a poor predictor of at-work deviance.

Further, there may be qualitative differences between industries, as alluded to in the benchmarking analysis by Kennedy et al. (2013), particularly around job-relevant deviance. For example, companies in the banking industry may be particularly sensitive to theft and fraud behaviors, while illicit drug use is a more pressing concern in the pharmaceutical industry. Prior to the present stream of research, the population that has received the most attention to off-duty behavior is police and military personnel (e.g., Hebert, 2012; Sugarman, 2003), who are sometimes held to a higher standard, and disciplined for “conduct unbecoming” (Hebert, 2012; p. 1). Should other government employees and civil servants be also subjected to stricter policies and monitoring? Perhaps it is less appropriate to apply this standard of outside conduct to civilian employees. Differences in expectations of privacy and responses to ODD might also

vary based on organizational characteristics such as size and culture, and managers may be held to a higher standard than nonsupervisory employees.

Finally, it is in the interest of organizations to limit deviance that harms the organization itself, its employees, and its stakeholders. Our findings demonstrate that personality is a consistent predictor of misconduct across settings. Accordingly, organizations may limit on- and off-duty deviance by incorporating into their selection systems assessments of personality, such as agreeableness, conscientiousness, and self-control, all of which are associated with other positive work outcomes (Barrick, Mount, & Judge, 2001; Henle, 2005). In particular, the strongest predictor of deviance was psychopathy. This finding lends support to recent calls (O'Boyle et al., 2012; Wu & LeBreton, 2011) to use aberrant personality to explain deviant behavior in organizational contexts and confirms that employees high in this trait may engage in elevated levels of deviance that may damage the organization. Additionally, more favorable job attitudes corresponded with lower levels of deviance; by identifying and addressing sources of dissatisfaction and unfairness, organizations may be able to reduce the amount of CWB, but these efforts will have little effect on employee deviance away from work.

Even if organizations use personality measures in selection systems they may still employ individuals who engage in deviance outside of work. This raises the question of whether an organization can take action to reduce the incidence of those employees acting out at work. Our results demonstrate that, when organizational procedures are just, even employees with high levels of off-duty misconduct are less likely to engage in CWB. Thus, in addition to selecting individuals who are less likely to violate rules both at work and away from work, organizations may limit costly on-duty deviance by implementing just policies. For example, if decisions are made fairly, an employee passed over for a promotion will be less likely to show hostility to

coworkers or steal from the company in retaliation *even when* that employee tends to steal or aggress against others outside of the job.

That said, organizations may not be able to completely quell the on-duty misconduct of employees who are deviant outside of work. The moderation had a rather small effect, and ODD and CWB remained strongly related across all levels of job attitudes. The single best predictor of employees' on-duty deviance was their off-duty misconduct, not personality or attitudes toward the organization. This finding is in contrast with claims that previous off-duty behavior is irrelevant to job performance (Comer, 1994; Lam & Harcourt, 2003), and suggests that some off-duty behaviors may be germane for consideration in selection contexts, particularly when the costs of deviance are high. These conclusions should not be made lightly, however, as considering off-duty behavior in selection and termination decisions is highly controversial, and could have adverse consequences in employee and stakeholder perceptions of fairness. This issue requires further investigation before such high-stakes decisions and policies are put into place.

Limitations

A few shortcomings of the study and the ODD measure developed deserve discussion. First, although this tool is more comprehensive than previous measures, it is not feasible to exhaust all possible manifestations of off-duty misconduct. Instead, we sought to generate and select representative and content valid items that expand the criterion domain over and above existing proxies of off-duty deviance. In order to create a scale that was as comprehensive as possible, we included behavior that was both criminal and noncriminal, varying in severity and in target. We chose relevant behaviors by drawing from existing deviance measures and from critical incidents of ODD from media and court cases, and addressed emerging concerns such as social network behavior.

Another limitation of the tool involves the sensitivity of the information and reliance on self-report methods, which does not lend itself to direct use in selection situations. Calls for other-report measures of CWB (e.g., Fox, Spector, Goh, & Bruursema, 2007; Stewart et al., 2009) have spurred a discussion of source effects in deviance ratings. Compared to other-reports, self-reports have been hypothesized to be either higher (because deviance is often committed surreptitiously) or lower (because they may be biased by social desirability). A meta-analytic comparison (Berry et al., 2012) revealed that self- and other-reports of CWB differed only slightly in their relationships with relevant variables (i.e., their validity) and mean levels of self-reports were slightly higher, and differences between self- and other-reports diminished as conditions of anonymity increased. These findings suggest that the availability/observation bias of other-reports may be more problematic than to the social desirability bias of self-reports (Berry et al., 2012). Further, while some research has used criminal record as an objective measure of deviance, the CWB literature also addresses the shortcomings of that approach (e.g., range restriction and low base rate, narrowing of behaviors considered; Marcus & Schuler, 2004; Sackett, Burris, & Callahan, 1989), many of which are also true for measuring ODD. Extrapolating these findings to ODD, we conclude that, while self-reports of deviance are not perfect, other-reports and objective measures are less appropriate in this case. Compared to CWB, organizational members are in an even poorer position to observe deviance outside of work, and objective measures may be highly susceptible to range restriction and may also exclude those with criminal records from the workforce, resulting in an even more severe underestimate of deviance.

Conclusions and Future Directions

The continuous dispersion of information and news via the internet, the ubiquity and visibility of social media, ever-increasing scrutiny on organizations and their leaders, and other features of the modern work context have galvanized organizations to consider and monitor the off-duty behavior of their employees, but management scholars had yet to explore the nature of ODD and how it relates to workplace variables. This study advances the emerging area by developing a measurement tool, theoretical model, and predictive network of ODD and begins to identify practices for predicting and managing ODD. The present results suggest that off-duty misconduct is highly likely to manifest in at-work deviance; therefore, over and above potential legal and reputational consequences of ODD itself, these behaviors are of concern to organizations because of their close association with CWB.

Many questions, however, remain unanswered. First, it is important to replicate and extend the nomological network of ODD. Future research might examine the convergent validity of self-reported ODD with background checks in order to address the hotly debated predictive validity of background checking (Lam & Harcourt, 2003). Additionally, the present study was not able to examine the relationship between ODD and in-role performance; ODD may be less strongly related, or even unrelated, to job performance outside of CWB. We expect our findings regarding ODD's relationships with CWB, personality, and job attitudes to generalize across samples, but we were not able to consider all germane sample characteristics or boundary conditions. Future research could further investigate how the ODD-CWB relationship differs across organizations, industries, job types, countries, and demographic groups, as moderators of that relationship may inform selection practices in the domain in question. Similarly, some off-duty behavior may be more or less relevant based on these sample characteristics. For example,

drug use (on or off the job) may be detrimental for pilots but less relevant for a salesperson; theft and fraud may be more relevant for jobs involving the handling of assets; and for employees who work with protected populations (e.g., children, the elderly, the disabled) off-duty misconduct of many kinds may be relevant. In addition, although ODD is related to negative work outcomes that harm the status of organizations and their members, there has been no comprehensive, systematic review of the incidence and costs of ODD. A closer review of ODD incidents and examination of legal theories, precedents, and common practices may more confidently estimate the impact of ODD on organizations and their employees.

Finally, organizations and individuals may differ in their beliefs about the relevance of ODD to work performance and desire for privacy. These differences might influence incumbent or prospective employees' reactions to ODD disciplinary policies or selection procedures, leaders' perceptions of employees who engage in ODD, as well as employees' perceptions of leaders who engage in ODD. These issues also raise larger questions about the evolving nature of work and the workplace: How does an individual's online presence relate to his or her role as an employee? How do social and legal vicissitudes change how organizations and individuals classify deviance (e.g., homosexuality, marijuana use) and how might this definition vary across cultures and across time? How does the concept of on- and off-duty behavior change when employees work remotely? Management research struggles to keep pace with these rapidly changing characteristics of work and society. The present study represents a preliminary step toward the understanding of an increasingly relevant phenomenon by developing a measurement tool and predictive model and offering avenues of future study in this emerging area.

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APPENDIX A

Selected existing measures of criminal and analogous behavior

 General Crime Index (from Tittle, Grasmick, & Ward, 2003)

1. As an adult, how often have you threatened someone with physical violence?
2. In the future will you ever gamble illegally on a sporting event or other situation?
3. In the future will you ever drive an automobile while under the influence of a moderate amount of alcohol?
4. In the past 5 years have you ever driven an automobile while under the influence of a moderate amount of alcohol?
5. As an adult, that is, since you were 18, how often have you beaten or punched another adult?
6. In the future will you ever take something from someplace worth less than \$20 that does not belong to you?
7. In the future will you ever fail to report a certain income or claim an undeserved deduction on your income tax return?
8. In the past 5 years have you ever taken something worth less than \$20 that did not belong to you?
9. In the future will you ever physically hurt another person on purpose?
10. In the past 5 years have you ever physically hurt another person on purpose?
11. In the past 5 years have you ever failed to report a certain income or claimed an undeserved deduction on your income tax return?
12. In the past 5 years have you ever gambled illegally on a sporting event or other situation?

 Gottfredson/Hirschi Crime Index Items (from Tittle, Grasmick, & Ward, 2003)

1. As an adult, that is, since you were 18, how often have you beaten or punched another adult?
2. In the future will you ever take something worth less than \$20 that does not belong to you?
3. In the past 5 years have you ever failed to report certain income or claimed an undeserved deduction on your income tax return?
4. In the past 5 years have you ever taken something from someplace worth less than \$20 that did not belong to you?
5. In the past 5 years have you ever physically hurt another person on purpose?
6. In the future will you ever physically hurt another person on purpose?
7. In the future will you ever fail to report a certain income or claim an undeserved deduction on your income tax return?
8. As an adult, how often have you threatened someone with physical violence?

 General Crime (from Evans, Cullen, Burton, Dunaway, & Benson, 1997)

1. Avoided paying for such things as movies, bus rides, food.
 2. Filed an insurance claim that you knew was false.
 3. Claimed a deduction that you knew was false.
 4. Did not report all of your income on your tax returns.
 5. Been involved in gang fights.
 6. Knowingly bought, sold, or held something that was stolen (or tried to do any of these things).
 7. Thrown objects at cars or people
 8. Stole or tried to steal things worth \$5 or less at work.
 9. Stole or tried to steal things worth between \$5 and \$50 at work.
 10. Stole or tried to steal things worth more than \$50 at work.
 11. Stole or tried to steal things worth \$5 or less at places other than work.
-

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12. Purposely damaged or destroyed property belonging to family members.
 13. Purposely damaged or destroyed property that did not belong to you (not counting your family or employer's property)
 14. Broken into a building or vehicle (or tried to break in) to steal something or just look around.
 15. Hit or threatened to hit someone other than a coworker or family member.
 16. Attacked someone with the idea of seriously hurting or killing him/her.
 17. Made obscene telephone calls, such as calling someone and saying dirty things.
-

Analogous Behaviors (from Evans, Cullen, Burton, Dunaway, & Benson, 1997)

1. Drove your car more than 15 miles above the speed limit.
 2. Drove a car while drunk.
 3. Been drunk in public places.
 4. Been loud, rowdy, or unruly in a public place.
 5. Hitchhiked where it was illegal to do so.
 6. Urinated in a public place (like behind a bush).
 7. Gambled illegally such as betting on sporting events or playing cards.
 8. Smoked a pack of cigarettes in one day.
 9. Had alcoholic beverages.
 10. Had marijuana or hashish.
 11. Had hallucinogens.
 12. Had amphetamines.
 13. Had barbiturates.
 14. Had cocaine.
 15. Been suspended from a job.
 16. Had an accident in your home where you hurt yourself.
 17. Had an accident in your car.
 18. Been so sick you couldn't leave the house.
-

APPENDIX B

Selected existing measures of counterproductive workplace behavior

 Measure of Interpersonal and Organizational Deviance (Bennett & Robinson, 2000)

Interpersonal Deviance

1. Made fun of someone at work.
2. Said something hurtful to someone at work.
3. Made an ethnic, religious, or racial remark at work.
4. Cursed at someone at work.
5. Played a mean prank on someone at work.
6. Acted rudely toward someone at work.
7. Publicly embarrassed someone at work.

Organizational Deviance

8. Taken property from work without permission.
9. Spent too much time fantasizing or daydreaming instead of working.
10. Falsified a receipt to get reimbursed for more money than you spent on business expenses.
11. Taken an additional or longer break than is acceptable at your workplace.
12. Come in late to work without permission.
13. Littered your work environment.
14. Neglected to follow your boss's instructions.
15. Intentionally worked slower than you could have worked.
16. Discussed confidential company information with an unauthorized person.
17. Used an illegal drug or consumed alcohol on the job.
18. Put little effort into your work.
19. Dragged out work in order to get overtime.

 Counterproductive Workplace Behavior Checklist
 (Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006)

Interpersonal Deviance

1. Started or continued a damaging or harmful rumor at work
 2. Been nasty or rude to a client or customer
 3. Insulted someone about their job performance
 4. Made fun of someone's personal life
 5. Ignored someone at work
 6. Blamed someone at work for error you made
 7. Started an argument with someone at work
 8. Verbally abused someone at work
 9. Made an obscene gesture to someone at work
 10. Threatened someone at work with violence
 11. Threatened someone at work, but not physically
 12. Said something obscene to someone at work to make them feel bad
 13. Did something to make someone at work look bad
 14. Played a mean prank to embarrass someone at work
 15. Looked at someone at work's private mail/property without permission
 16. Hit or pushed someone at work
 17. Insulted or made fun of someone at work
-

Organizational Deviance

18. Purposely wasted your employer's materials/supplies
 19. Purposely damaged a piece of equipment or property
 20. Purposely dirtied or littered your place of work
 21. Came to work late without permission
 22. Stayed home from work and said you were sick when you were not
 23. Taken a longer break than you were allowed to take
 24. Left work earlier than you were allowed to
 25. Purposely did your work incorrectly
 26. Purposely worked slowly when things needed to get done
 27. Purposely failed to follow instructions
 28. Stolen something belonging to your employer
 29. Took supplies or tools home without permission
 30. Put in to be paid for more hours than you worked
 31. Took money from your employer without permission
 32. Stole something belonging to someone at work
 33. Told people outside the job what a lousy place you work for
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APPENDIX C

Final ODD Scale with Subscales

Off-Duty Deviance Scale (ODDS)

Drug- and Alcohol-Related ODD

1. Shared substance-related material on a social media website?
2. Been intoxicated in public places?
3. Driven while intoxicated?
4. Used, possessed, or sold marijuana?
5. Used, possessed, or sold a drug other than marijuana (e.g., cocaine, ecstasy)?
6. Gambled illegally?

Sexual ODD

7. Had an extramarital affair?
8. Shared sexual material on a social media website?
9. Taken or posed in nude or sexual photographs/videos?
10. Sent nude or sexual photos/videos over email or text message?
11. Made unwanted sexual advances on someone (e.g., kissing, touching)?
12. Had sex with a minor?
13. Solicited a prostitute?
14. Possessed illegal pornography?
15. Been nude in public where it was illegal to do so?
16. Engaged in sexual acts in public?

Violent ODD

17. Pushed someone?
18. Threatened to physically hurt someone?
19. Purposefully injured or neglected an animal?
20. Shared violent material on a social media website?
21. Used language that is derogatory to women or minorities?
22. Slapped, hit, or struck someone?
23. Hurt someone so badly they needed medical attention?
24. Illegally carried or used a weapon?
25. Purposely damaged or destroyed property that did not belong to you?
26. Broken into a building or vehicle that did not belong to you?

Theft-related ODD

27. Accepted or paid a bribe?
28. Filed for bankruptcy?
29. Stolen something worth less than \$20?
30. Stolen something worth more than \$20?
31. Cheated on taxes?
32. Engaged in fraudulent behavior (e.g., written bad checks, filing a false insurance claim)?
33. Stolen someone's identity (e.g., used a credit card that was not yours)?

Organizationally-directed ODD (Addendum)

34. Said something negative about the company you work for?
35. Said something negative about your supervisor or coworkers?
36. Shared information about your company that was supposed to be private?
37. Used your company email/computer for something you would not want your employer to know about?