

2008

A stressor-strain model of organizational citizenship behavior and counterproductive work behavior

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A Stressor-Strain Model of Organizational Citizenship Behavior and
Counterproductive Work Behavior

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
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Date of Approval:
June 27, 2008

Keywords: Contextual performance, conflict, stress, attributions, emotion

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Acknowledgements

This research was supported in part by a National Institute for Occupational Safety and Health (NIOSH) training grant (No. T42-CCT412874) from the Sunshine Education and Research Center at the University of South Florida. The contents are solely the responsibility of the author(s) and do not represent the official views of NIOSH.

I would also like to acknowledge my advisor, Dr. Tammy Allen. Her guidance constantly challenged me to focus, think deeply, and achieve beyond the ordinary. I'd also like to thank Drs. Vandello and Stark, who I also feel contributed to my professional development, and my committee members who greatly helped me to improve this project.

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ABSTRACT

Prior research has attempted to develop a model of organizational citizenship behaviors (OCB) and counterproductive work behaviors (CWB), but limited testing remains a problem. The purpose of the current study is to examine OCB and CWB from a job stressor-strain approach. The sample consisted of 235 employees throughout the United States and their supervisors. Results of the study suggested OCB and CWB are affected by stressors (including interpersonal conflict, low interactional justice, job demands, and organizational constraints). Additionally, trait emotion and attributional styles affect the amount of stressors perceived. The implications as well as limitations of the study are discussed.

Chapter One

Introduction

Although many workplace activities are highly regulated, some employee behaviors allow for more discretion. These more discretionary behaviors include organizational citizenship behavior (OCB) and counterproductive work behavior (CWB). OCBs are actions that contribute to the organizational, social, and psychological context of the workplace, such as volunteering to acclimate new employees or enhancing the reputation of the organization (Borman & Motowidlo, 1993). For the most part, OCB is thought to benefit the organization (Bolino, Turnley, & Niehoff, 2004). Conversely, CWB refers to intentional acts that are harmful to the organization, such as taking unnecessary breaks, stealing, or aggression (Fox & Spector, 2005).

Because these constructs are both considered voluntary work behaviors, researchers have begun to develop models that describe or explain OCB and CWB (e.g., Kelloway, Loughling, Barling & Nault, 2002; Lee & Allen, 2002; Miles, Borman, Spector, & Fox, 2002; Spector & Fox, 2002). These models explain OCB and CWB as a function of organizational environment, organizational attitudes, emotion, and personality traits, but none have received unequivocal support. Previous studies have stressed the importance of further developing these models in an attempt to better understand these constructs (e.g., O'Brien & Allen, in press). The purpose of the present study is to extend this research by developing a model of the role of job stressors in OCB and CWB, based

on previous empirical and theoretical investigation.

Prior investigation of job stressors in OCB and CWB is limited, but suggests that future research in the area would be beneficial (e.g. Miles et al., 2002). Specifically, there has been only preliminary testing of the role of job stress in OCB and CWB, and research in this area could be much improved through more rigorous design (e.g. longitudinal testing). The lack of research in the area may be due to research that has suggested that employee performance and well-being are conflicting organizational goals (Fox & Spector, 2002). However, more recent theory has implicated employee well-being in organizational outcomes such as task performance (e.g., Judge, Thoresen, Bono, & Patton, 2001) and counterproductive work behaviors (e.g., Fox, Spector, & Miles, 2001). The current study will propose a model of OCB and CWB in which job stressors mediate the relationship between personality variables and these voluntary behaviors. These meditational relationships will be tested using path analysis and bootstrapped Sobel tests.

OCB and CWB Background

OCB and CWB are discretionary actions by employees that affect organizations in a variety of ways. OCBs are employee activities that support the social, psychological, or environmental context of an organization, but are not part of the formal job requirements (Borman & Motowidlo, 1993). OCBs do, however, contribute to the organization's productivity by allowing the company to adapt to change and its workers to cooperate (Podsakoff & MacKenzie, 1997). Many researchers suggest that OCB has two factors based on the target of the behavior (e.g., LePine, Erez, & VanDyne, 2002; O'Brien & Allen, in press; Organ, 1997; Williams & Anderson, 1991). For example,

organizationally-targeted behaviors, such as enhancing the reputation of the organization, are referred to as OCB-Organizational (OCB-O), whereas interpersonally-targeted OCB, such as helping to acclimate a new employee, are referred to as OCB-Interpersonal (OCB-I).

Conversely, CWB consists of acts that harm or are intended to harm organizations or people in organizations (e.g., aggression, hostility, sabotage, theft, and withdrawal). CWB is potentially a serious organizational problem, given that 75% of employees report having stolen from their employers at least once and CWB can cost \$6 to \$200 billion annually (cf. Aquino, Lewis, & Bradfield, 1999). Similar to OCB, CWB can be differentiated according to the target of the behavior. The target of CWB can be either the organization (CWB-O) or other employees (CWB-I; Berry, Ones, & Sackett, 2007).

In a factor analysis assessing the overlap between OCB, CWB, and task-related behaviors, a three factor solution (OCB, CWB, and task behaviors) fit better than a two factor model that combined any of the constructs or a four factor model that included a common method factor (Kelloway et al., 2002). In another study, Rotundo and Sackett (2002) concluded that contextual performance and counterproductive performance represent distinct dimensions of job performance. This supports the view of OCB and CWB as distinct, correlated constructs.

Although OCB and CWB appear to be opposite ends of a voluntary behavior spectrum, meta-analytic research has found only a moderate negative correlation ($r = -.27$; Dalal, 2005). Thus, it appears that OCB and CWB are not opposing ends of a continuum of voluntary behaviors. Furthermore, OCB and CWB appear to have differential

relationships with other variables, including personality traits and organizational attitudes (e.g., Dalal, 2005; O'Brien & Allen, in press). Consequently, the current study focuses on developing a model of OCB and CWB, based on the premise that there are both similarities and differences between the constructs.

Antecedents to OCB and CWB

Prior research has investigated the antecedents of OCB and CWB, including organizational attitudes and individual differences. Several studies have identified organizational attitudes that are consistently related to both OCB and CWB. In one such study, a dominance analysis was used to investigate previously established correlates of OCB and CWB concurrently (O'Brien & Allen, in press). This study indicated that job satisfaction, organizational support, and organizational justice received support as antecedents to both OCB and CWB. Results from a meta-analysis support this finding, showing that high job satisfaction, organizational commitment, and organizational justice are among the organizational attitudes that have the most support as theoretical antecedents of increased OCB and decreased CWB (Dalal, 2005).

Fewer individual difference variables have received consistent testing as antecedents to OCB and CWB. Consequently, there is less consensus regarding what individual difference variables relate to OCB and CWB. For example, one study found that lower positive affect, as well as higher negative affect and trait anger were related to more CWB, but only positive affect was related to more OCB (Miles et al., 2002). Another study found that positive affect was related to OCB-I and OCB-O, but neither positive nor negative affect was related to CWB (Lee & Allen, 2002). A qualitative

review of the literature identified conscientiousness, positive affect, and negative affect as the individual difference variables consistently linked to OCB and to CWB; however, magnitudes of these relationships ranged from .10 to .41 (Dalal, 2005). In another review of the literature, conscientiousness, trait anger, and locus of control were found to be the most supported correlates of OCB and CWB (O'Brien & Allen, in press). The overall lack of consensus regarding which individual differences are related to OCB and CWB may be partially due to a relatively limited selection of personality variables that has been studied in terms of OCB (Borman, Penner, Allen, & Motowidlo, 2001). Furthermore, the study of individual difference variables related to CWB has focused on specific CWB behaviors (e.g., theft, sabotage, organizational retaliatory behavior, turnover, alcohol abuse), making it difficult to generalize study results to overall CWB.

In summary, previous research has been able to identify some shared antecedents of OCB and CWB. Although there seems to be little dispute that organizational attitudes are correlated with OCB and CWB, there is less consensus regarding which individual differences are correlated with OCB and CWB, and to what degree these individual differences are related to OCB and CWB. Furthermore, very little research has looked at the role of job stressors in OCB and CWB. In order to address this gap in the literature, the current study aims to examine the relationship between a broader range of correlates of OCB and CWB, including individual differences and job stress.

Job Stressors in OCB and CWB

The effectiveness of an organization depends on the well-being of its employees, as unhealthy, stressed, or injured workers are likely to be less efficient and productive

(Sauter, Lim, & Murphy, 1996). One particularly salient health factor is job stress. Researchers have documented many negative consequences (strains) that result from job stressors such as workplace aggression, job dissatisfaction, and negative emotion (Hershcovis et al., 2007; Miles et al., 2002). However, research investigating OCB and CWB as strains has been limited. Whereas CWB has been studied as a strain, decreased OCB has received little attention as an outcome of job stressors. Consequently, one potential way to improve our understanding of how employee well-being relates to organizational effectiveness is to investigate the relationship between job stressors and voluntary work behaviors.

There are several reasons job stressors may lead to decreased OCB and increased CWB. For example, rational processing may be deferred under situations of stress, according to cognitive reasoning theory and self-regulation theory (e.g., Martinko, Gundlach, & Douglas, 2002). Specifically, a person may use the majority of his or her cognitive resources in order to cope with a job stressor, making it impossible to attend to additional demands, such as rational processing (e.g., avoiding aggression). Alternatively, interpersonal stressors, such as interpersonal conflict or low interactional justice (the degree to which a person is treated with politeness, dignity, and respect), may deter employees from engaging in OCB while encouraging CWB through social exchange theory. Social exchange theory posits that people use of a subjective cost-benefit ratio in their relationships, so that when a person perceives the costs of a relationship as outweighing the perceived benefits, the person will choose to leave the relationship. This may be evidenced as decreased willingness to help the other person

(less OCB), increased withdrawal (a form of CWB). Furthermore, interpersonal stressors have been shown to lead to aggression or retaliation in response to perceived attacks (e.g., Spector & Fox, 2005). Another job stressor that may result in decreased OCB and increased CWB is organizational constraints. Restrictive organizational constraints may be perceived as a violation of the psychological contract, which can potentially lead to the desire for retaliation (Aquino, Tripp, & Bies, 2001), abuse towards coworkers (Hoobler & Brass, 2006), or other strains. Work overload is another job stressor that may lead to decreased opportunities to engage in OCB, and increase the amount of job withdrawal. Work overload may make it necessary to withhold effort in order to cope with job demands. In summary, the job stressors of interpersonal conflict, interactional justice, organizational constraints, and job demands may relate to OCB and CWB.

Previous studies have implicated the role of job stressors in the voluntary behaviors of OCB and CWB. For example, it has been hypothesized that job stressors and other environmental characteristics are appraised by employees and can lead to an emotional response, which in turn leads to OCB and CWB, depending on several other factors (e.g., personality; Spector & Fox, 2002). In a partial test of this model, one study found that certain job stressors (interpersonal conflict, interactional justice, organizational constraints, work overload) are related to increased CWB, and surprisingly, increased OCB (Miles, Borman, Spector, & Fox, 2002). Although the authors suggest this counterintuitive relationship exists because job stressors allow the opportunity to persevere, this finding may instead be a function of the particular items included in the OCB measure used. Specifically, some of the OCBs included in this study may simply

be more likely to occur under conditions of stress. For example, employees may not have to “suggest ideas for improvement” or “willingly sacrifice their own personal interests for the good of the team” if they are satisfied with interactions with coworkers and the organizational environment.

Although this study and others (e.g., Bolino and Turnley, 2005) have found a positive relationship between OCB and job stress, there is also contradictory evidence. Specifically, there is support that job stressors, such as interpersonal conflict, interactional justice, work overload, and organizational constraints, are related to decreased OCB and increased CWB. For example, one study found that interpersonal conflict can lead to decreased OCB-I and OCB-O (Zellars, Tepper, & Duffy, 2002). Prior theory has also supported the role of job stressors in OCB. In situations of interpersonal stressors, for example, employees may not perceive social support from coworkers. According to social exchange theory, these employees may be less likely to provide OCB to their peers (Adams, 1965). Likewise, when the organization does not prevent work overload or organizational constraints, this may be perceived as a violation of the psychological contract and lead to less OCB (e.g., Coyle-Shapiro & Conway, 2005).

Previous research investigating the relationship between job stressors and CWB has shown that, for example, interpersonal conflict has been studied in various forms (e.g., incivility, bullying, perceived victimization) and has been shown to be positively related to CWB. Specifically, increased CWB is correlated with bullying experienced (e.g., Ayoko, Callan, & Hartel, 2003), perceived victimization (e.g., Aquino, Tripp, &

Bies, 2001; Jockin, Arvey & McGue, 2001), and low interactional justice (e.g., Aquino, Galperin, & Bennett, 2004; Skarlicki & Folger, 1997). Other types of job stressors have been linked to CWB. For example, previous research has linked work overload to job withdrawal, a form of CWB (Spector & Jex, 1998). Likewise, organizational constraints have been related to increased CWB (e.g., Penney & Spector, 2005; Storms & Spector, 1987). In general, job stressors such as interpersonal conflict, poor interactional justice, organizational constraints, and job demands are well supported antecedents to CWB.

In summary, job stressors have been implicated as an antecedent to OCB and CWB, but this relationship has not been tested extensively. Prior theory and empirical testing has suggested interpersonal conflict, interactional justice, organizational constraints, and job demands as potential antecedents of OCB and CWB. Consequently, the current study aims to extend the literature by further investigating the relationship.

Hypothesis 1a: Employees who report more interpersonal stressors (higher interpersonal conflict and lower interactional justice) and organizational stressors (higher organizational constraints and job demands) will report less OCB and more CWB.

Prior research suggests that the antecedents of OCB and CWB may be related to the target of the behaviors. In other words, OCB-I and OCB-O, as well as CWB-I and CWB-O, may have different antecedents. A meta-analysis suggests that job stressors will be related to different types of OCB and CWB, based on target (Hershcovis et al., 2007). Specifically, interpersonal stress may lead to decreased OCB-I and increased CWB-I, consistent with social exchange theory. Furthermore, organizational stress, including

work load and organizational constraints, have been shown to be related to decreased OCB-O and increased CWB-O (Hershcovis et al., 2007). This is consistent with research on the psychological contract, because prior research shows a relationship between violation of the psychological contract and voluntary behaviors (e.g. Coyle-Shapiro & Conway, 2005; Hoobler & Brass, 2006). Consequently, the following hypotheses are proposed.

Hypothesis 1b: Employees who report more interpersonal stressors (higher interpersonal conflict and lower interactional justice) will report less OCB-I and more CWB-I.

Hypothesis 1c: Employees who report more organizational stressors (higher organizational constraints and job demands) will report less OCB-O and more CWB-O.

The Role of Personality in the Stressor-Strain Relationship

Individual differences have been shown to be related to reports of job stressors (e.g., Chen & Spector, 1991). Trait emotion, for example, has been implicated as the mechanism responsible for the relationship between job stressors and OCB/CWB in prior theory (e.g., Spector & Fox, 2002) and empirical investigations (e.g., Lee & Allen, 2002; Miles et al., 2002). Consequently, one avenue for exploring the relationship between individual differences and job stressors is trait emotion. Trait emotion represents a person's baseline level of a particular emotion and the likelihood or threshold that much be reached in order to react to a particular stimulus with that emotion (Lord, Klimoski, & Kanfer, 2002). In other words, people high in a trait emotion will be more likely to feel

that emotion on average and also more likely to perceive a stimulus as causing that emotion. Trait negative emotion may increase a person's baseline level of negative arousal, such that he/she will be more likely to perceive stress. For example, negative affectivity has received extensive support as a correlate of job stressors (e.g., Penney & Spector, 2005; Spector & O'Connell, 1994). The relationship between negative affectivity and job stressors have been well established, but specific trait emotions have received less empirical scrutiny as a correlate of job stress.

Although no specific trait emotion has received a great deal of testing as a correlate of job stress, overall, trait hostility and trait anger have been implicated as potential correlates of job stress. Trait anger represents the average amount or baseline level of anger that a person experiences. For example, prior research has shown that trait anger is correlated with reports of job stressors (e.g., Bongard & al'Absi, 2005; Brondolo et al., 1998; Fox, Spector, & Miles, 2001). Trait hostility, another negative trait emotion, is the average amount of negative beliefs about others, including suspiciousness and cynicism, and is a facet of aggressiveness. Aggressiveness and hostility have also been related to perceiving interpersonal conflict, a job stressor (e.g., Hutri & Lindeman, 2002; Kiewitz & Weaver, 2001).

Other individual differences, such as attributional style, may also be relevant to job stress. Attribution theory states that people are constantly aware of their environment and forming attributions regarding many aspects of events that occur in their lives (e.g., Weiner, 1980). In the workplace, such attributions have been linked to many organizational outcomes. For example, attributions of unfairness has been linked to job

satisfaction, organizational commitment, organizational citizenship behavior, job withdrawal, and task performance (e.g., Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Because attributions have been shown to be related to organizational outcomes, trait attributional style may be relevant to organizational outcomes. Furthermore, previous research has shown evidence that trait attributions may be relevant to perceived job stress.

For example, external locus of control has been shown to be related to reports of job stressors (e.g., Spector et al., 2002). External locus of control is an individual difference that describes the degree to which people attribute consequences in their lives, both good and bad, to themselves (internal locus of control) versus other people or fate (external locus of control). Because the Job Demands-Control model (Karasek, 1979) has suggested that events perceived as outside of a person's control may be more stressful than events within his or her control, general attributions about control will probably be related to the reporting of stressors. Although the synergistic effect of job demands and personal control proposed in the Job Demands-Control model has received inconsistent empirical confirmation, a main effect of external locus of control on increased reporting of job stressors has been empirically supported (e.g., Fox, Spector, & Miles, 2001; Perrewe, 1986; Spector & O'Connell, 1994).

Likewise, equity preference may influence how fair an employee perceives his/her environment. Equity preference describes how much a person desires outcomes (e.g. pay) in a relationship (Huseman, Hatfield, & Miles, 1987). People who are more entitled prefer a higher amount of a reward in return for their efforts than do benevolents,

who generally prefer to give more than they receive. Consequently, people who are more entitled will be more likely to perceive an exchange as unfair, and because unfairness can be a job stressor (e.g., Fox, Spector, & Miles, 2001; Francis, 2003; Zohar, 1995), entitled employees may be more likely to perceive and report job stress.

The current study extends previous research by investigating the role of specific trait emotion and attributional style in job stress. Although these individual differences have been implicated as correlates of job stressors, they have not received extensive testing. Because the majority of these studies focus on interpersonal conflict, interactional justice, job demands, and organizational constraints as stressors (e.g. Fox, Spector, & Miles, 2001; Spector & O’Connell, 1994), these constructs were included in the current study. Specifically, it is expected that trait hostility, trait anger, locus of control, and entitled equity preference will be related to reports of job stress.

Hypothesis 2: Employees with greater trait anger, trait hostility, external locus of control and entitled equity preference will report more job stressors, including lower interactional justice and higher interpersonal conflict, organizational constraints, and job demands.

The Role of Job Stressors in OCB and CWB

Building a model of OCB and CWB is important to furthering our understanding of these workplace behaviors. Previous models of OCB and CWB have focused on job affect and job cognitions (Lee & Allen, 2002) or emotion (Spector & Fox, 2002). Neither study has received overwhelming empirical support. For example, one study used data from 149 registered nurses and their coworkers to study the relationship between job

attitudes (intrinsic satisfaction, procedural justice, pay cognitions, and work schedule-load) and OCB-I, OCB-O, and CWB (Lee & Allen, 2002). None of the job attitudes were related to OCB-I, intrinsic satisfaction and procedural justice related to OCB-O, and pay cognitions related to CWB. Several of the discrete emotions predicted OCB-I, OCB-O, and CWB. However, only two of the six relationships between trait affectivity and voluntary behaviors were significant (positive affect was correlated with OCB-I and OCB-O). In general, this model was not supported, but does indicate that future research should consider a broad range of individual differences and specific emotion when investigating a model of OCB and CWB.

Other previous theory has focused on the mediating role of emotion in the relationship between job stressors and voluntary behaviors (Spector & Fox, 2002). However, such research has not received extensive empirical support. A test of portions of this model was generally supportive, except that OCB unexpectedly correlated positively with job stressors. Job stressors (interpersonal conflict, interactional justice, organizational constraints, and job demands) were related to OCB and CWB, and trait affect (anger, positive affectivity, and negative affectivity) accounted for unique variance above and beyond the job stressor variables. This model provides some evidence that job stressors and trait emotion may be related to OCB and CWB. However, the study tested a relatively narrow set of individual differences and suggested that future research include more varied individual differences. Consequently, the current model aims to expand the individual differences studied in OCB and CWB research.

Prior research and theory has suggested that certain individual differences are

related to OCB and CWB (e.g., Aquino, Tripp, & Bies, 2001; Hershcovis et al., 2007; Neuman & Baron, 1998; Spector & Fox, 2002; Storms & Spector, 1987). Trait hostility and trait anger are emotions that have been implicated as correlates of OCB and CWB (e.g., Miles et al., 2002; O'Brien & Allen, in press; Spector & Fox, 2002). Furthermore, OCB and CWB may be related to attributional style, including locus of control (e.g., Bennett, 1998; Borman et al., 2001; Fox & Spector, 1999) and equity preference (e.g., Kickul & Lester, 2001; Kwak, 2006; Liu, 2006; Mason & Mudrack, 1997; Shore, Sty, & Strauss, 2006). Consequently, certain individual differences will likely be related to OCB and CWB.

Hypothesis 3: Greater trait hostility, trait anger, external locus of control, and entitled equity preference will be related to less OCB and more CWB.

Although previous models of OCB and CWB have received some empirical support, an extensive investigation is necessary to provide further evidence for these models. For example, prior theory of the role of job stressors in OCB and CWB has viewed emotion as an outcome of stress, thereby leading to OCB and CWB (Spector & Fox, 2002). Other research has suggested that individual differences, including trait emotion, may predispose a person to report job stressors (Fortunato & Harsh, 2006, Spector & Fox, 2002). Negative emotion and attributional style have been shown to affect the way people perceive their environments, and may consequently lead to perceived job stressors in various ways (e.g., directly or by affecting people's views of their environments; Spector, Zapf, & Chen, 2000).

This relationship has not received adequate empirical scrutiny despite theoretical

and empirical support. Furthermore, these analyses used cross-sectional data. Cross-sectional data has been shown to generate biased estimates of longitudinal mediation parameters, even under ideal circumstances (Maxwell & Cole, 2007). Due to the lack of extensive testing of a job stress model of OCB and CWB, future testing of the mediating roles of these variables would benefit from a longitudinal study design. This type of scrutiny will allow researchers to rule out other alternatives and establish a temporal precedence (although temporal precedence does not, by itself, imply causality). Furthermore, separation of the predictor and criterion helps establish stability of the effect by removing the daily effects of mood. Based on previous empirical support and prior theory, it is likely that individual differences will lead to reported job stressors, which will in turn influence employee engagement in OCB and CWB (Figure 1).

Hypothesis 4a: Job stressors (lower interactional justice and higher interpersonal conflict, organizational constraints, and job demands), will mediate the relationships between individual differences (trait hostility, trait anger, external locus of control, and entitled equity preference) and OCB/CWB.

Previous research on OCB and CWB has shown support for target-based distinctions of these behaviors (e.g., Dalal, 2005; O'Brien & Allen, in press). For example, meta-analytic research has shown that OCB-I and OCB-O, as well as CWB-I and CWB-O, have differential relationships with certain antecedents (Dalal, 2005). Furthermore, a meta-analysis of job stressors and CWB has shown that certain types of job stressors may be related more strongly to certain types of CWB (Hershcovis et al., 2007). Specifically, interpersonal conflict was more strongly related to CWB-I than to

CWB-O, and organizational stressors were more strongly related to CWB-O than to CWB-I. This previous empirical research shows support for a target-based model of job stressors as related to OCB and CWB.

Furthermore, there is theoretical evidence that a target-based model of OCB and CWB would provide better fit than an overall model of OCB and CWB. Specifically, social exchange theory would suggest that employees will engage in OCB or CWB towards coworkers (i.e. interpersonally directed) when they have been affected by other coworkers. Consequently, interpersonal stressors may be related to decreased OCB-I and increased CWB-I. Conversely, breach of the psychological contract, including excessive job demands or organizational constraints, may relate to retaliation against the organization or decreased motivation to help the organization. An employee who has had a psychological contract breach may engage in less OCB-O or more CWB-O. Consequently, the target based model of OCB and CWB may provide greater insight into these relationships (Figure 2).

Hypothesis 4b: Interpersonal stressors (lower interactional justice and higher interpersonal conflict) will mediate the relationships between individual differences (trait hostility, trait anger, external locus of control, and entitled equity preference) and OCB-I / CWB-I.

Hypothesis 4c: Organizational stressors (higher organizational constraints and job demands) will mediate the relationships between individual differences (trait hostility, trait anger, external locus of control, and entitled equity preference) and OCB-O / CWB-O.

Chapter Two

Method

Participants and Procedure

Participants were recruited through the Syracuse University Study Response Project. This organization connects researchers with participants who have signed up with them in order to complete online surveys in exchange for payment or raffle entry. This recruitment process was chosen based on its use in previous studies (e.g., Dennis & Winston, 2003; Piccolo & Colquitt, in press; Van Ryzin, 2004; Vodanovich, Wallace, & Kass, 2005) and prior validation of online samples (e.g., Frame & Beaty, 2000; Stanton, 1998; Yost & Homer, 1998).

Approximately 25,000 potential participants were emailed to determine eligibility (worked 30 or more hours per week, have been mentored at some point in their career, and had a supervisor to whom they could email a survey). The 700 people who responded and met all criteria received an email invitation to complete a questionnaire twice (about 20 minutes each with a two-week break) for ten dollars (Appendix A). Two weeks after the Time 2 data collection, participants were asked to email a short (2-5 minute) measure to their supervisors (Appendix B). In this Time 3 data collection, supervisors completed a short demographics form and measures of the participant's levels of OCB and CWB. Upon completion of the questionnaires, the Study Response

group provided \$10 to each participant.

At Time 1, 571 people filled out the survey. After removing participants who worked less than 20 hours a week, participants who reported participant numbers that could not be matched, and duplicate data, there were 424 responses. These 424 people were emailed two weeks later to participate for Time 2 data collection. The similar criteria (e.g., ID matching, minimum hours worked per week) were used to prepare this data. At Time 2, 277 responses were usable. Time 3 responses resulted in a final sample size of 212 self-supervisor pairs. The participants were 57.2% female, ethnically heterogeneous (150 White/Caucasian, six Black/African American, 35 Asian, nine Hispanic, and the remaining were other ethnicities), and on average 37.12 years old ($sd=9.36$). The average tenure within the organization was 67.45 months ($sd=77.16$). Participants were employed in a variety of occupations (e.g., retail, child care, paralegal, administrative). Their supervisors were 46.2% female, ethnically heterogeneous (69.2% White/Caucasian, 5.6% Black/African American, 19.0% Asian, 4.1% Hispanic, and the remaining were other ethnicities), and on average 42.83 years old ($SD=10.77$). On average, the supervisors reported knowing the participant for 59.48 months ($SD=74.62$).

Measures

Demographics. Participants and supervisors reported demographic information, including their age, gender, race, as well as job information such as number of hours worked per week, type of job, organizational tenure, and job tenure.

Trait hostility. Hostility was measured using the 8-item hostility subscale of the Buss-Perry Aggression Questionnaire (1992). Participants responded to items such as “I

am suspicious about overly friendly neighbors” and “Other people always seem to get the breaks” on a 7-point Likert scale. Higher responses indicate more hostility. Correlation alpha at time 1 was .90, at time 2 was .93.

Trait anger. The 10-item trait anger subscale of the revised State-Trait Anger Expression Inventory (Spielberger, 1988) was used to measure this construct. Participants reported how well each item (e.g., “I am quick-tempered”) describes them on a four-point scale (1= not at all, 4= very much so). Higher scores indicate higher levels of trait anger. At time 1, the coefficient alpha was .90, and .93 at time 2.

Locus of control. To assess locus of control in the work domain, the Work Locus of Control scale (Spector, 1988) was used. On this 16-item Likert scale, respondents report the degree that they agree with each statement (such as “A job is what you make of it”) on a 7-point scale. Several items are reverse scored, in the direction such that higher scores indicate an internal locus of control. The coefficient alphas at time 1 and time 2 were .84 and .82, respectively.

Equity preference. The 16-item Equity Preference Questionnaire (Sauley & Bedeian, 2000) was chosen to measure this construct. Participants reported how well each item (e.g., “I prefer to do as little as possible at work while getting as much as I can from my employer”) describes them on a 7-point Likert scale. Higher scores indicate higher levels of entitled equity preference after reverse scoring several items. The coefficient alpha was .86 at time 1 and .82 at time 2.

Interpersonal conflict. The Interpersonal Conflict at Work Scale (ICAWS) was used to represent this construct (Spector & Jex, 1998). Four items such as “getting into

arguments with others” are rated on a 5-point temporal scale that ranges from “less than once per month or never” to “several times per day.” Higher scores represent more interpersonal conflict. At time 1, the coefficient alpha was .80, and .84 at time 2.

Interactional justice. The four-item interactional justice factor from the Colquitt’s (2001) justice survey was used to measure this construct. Items such as “Do your coworkers treat you in a polite manner?” were rated on a 5-point Likert scale. Higher scores represent greater interactional justice. The coefficient alphas were .94 and .92 at time 1 and time 2, respectively.

Job demands. The Quantitative Workload Inventory (QWI) is a measure of the amount of work in a job, and was chosen to represent this construct. The scale includes five items, such as “How often does your job require you to work very hard?” that participants rated using a 5-point temporal scale, ranging from “less than once per month or never” to “several times per day.” Higher scores represent higher job demands. The coefficient alphas were .88 at time 1 and .92 at time 2.

Organizational constraints. The Organizational Constraints Scale (OCS) used in Spector and Jex (1998) was chosen to assess this construct. Eleven items, representing the 11 areas of constraints described in Peters and O’Connor (1980), were presented to participants. Participants indicated how often the item (such as “incorrect instructions” or “inadequate training”) makes it difficult or impossible for them to do their jobs. Respondents use a 5-point frequency scale, ranging from “less than once per month or never” to “several times per day.” Higher scores represent more organizational constraints. At time 1 and time 2, the coefficient alphas were .91 and .93, respectively.

Organizational citizenship behavior. OCB was assessed using Williams and Anderson's 14-item (1991) survey. OCB-I and OCB-O are each measured with seven items on which the participant and supervisor report to how often the participant engages in certain activities, such as helping others who have been absent. Responses were provided on 7-point frequency scale that ranges from "never" to "every day." Higher scores reflect greater OCB. For OCB-I, the coefficient alphas were .91, .92, and .96 at time 1, time 2, and time 3, respectively. For OCB-O, the coefficient alphas at time 1, time 2, and time 3 were .87, .90, and .94. The overall OCB coefficient alpha at time 1 was .91, at time 2 was .93, and at time 3 was .97.

Counterproductive work behavior. Robinson and Bennett's (1995) 19-item CWB measure was chosen to represent the construct of CWB. Participants and supervisors responded on a 1-7 scale (never - every day) how often the participant engages in behaviors such as "made fun of someone at work." The scale has seven items that represent CWB-I, and 12 that represent CWB-O. Although there is some concern that items from this scale may overlap with OCB items, prior research investigating the factor structure of OCB and CWB support the use of these scales without modifications (O'Brien & Allen, 2008). The time 1, time 2, and time 3 coefficient alphas for CWB-I were .91, .92, and .96. The coefficient alphas for CWB-O were .94, .95, and .98 at time 1, time 2, and time 3, respectively. For overall CWB, the coefficient alphas were .96 at time 1, .96 at time 2, and .98 at time 3.

Chapter Three

Results

Descriptive Statistics

Means, standard deviations, and intercorrelations among study variables are provided in Tables 1-3. Correlations among Time 1 variables appear in the lower half of Table 1, whereas Time 2 correlations appear in the upper half of Table 1. Correlations between Time 1 and Time 2 variables appear in Table 2. Table 3 shows the correlations between Time 3 supervisor-report data and the self-reported data at both Time 1 and Time 2, as well as the means and standard deviations for all study variables.

Hypothesis Testing

Hypothesis 1a proposed that employees who report more interpersonal stressors (higher interpersonal conflict and lower interactional justice) and organizational stressors (higher organizational constraints and job demands) would report less OCB and more CWB. This was partially supported using Time 2 self-reported stressors and Time 3 supervisor-reported behaviors (Table 3), consistent with the proposed model.

Supervisors rated participants who reported lower interactional justice and higher interpersonal conflict and organizational constraints as engaging in less OCB ($r = .41, -.29, -.24, p < .001$ respectively) and more CWB ($r = -.33, .58, .42, p < .001$ respectively). Job demands were not correlated with either behavior.

Hypotheses 1b and 1c focused on the interpersonal and organizational targets of OCB and CWB. Specifically, Hypothesis 1b proposed that employees who report more interpersonal stressors (higher interpersonal conflict and lower interactional justice) will report less OCB-I and more CWB-I. Likewise, Hypothesis 1c proposed that employees who report more organizational stressors (higher organizational constraints and job demands) would report less OCB-O and more CWB-O. These hypotheses were partially supported using correlations from Time 2 self-reported stressors and Time 3 supervisor-reported behaviors (Table 3). Supervisors rated participants who reported lower interactional justice and higher interpersonal conflict as engaging in less OCB-I ($r = .36, -.23, p < .001$, respectively) and more CWB-I ($r = -.32, .56, p < .001$ respectively). Likewise, supervisors rated participants who reported higher organizational constraints as engaging in less OCB-O ($r = -.29, p < .001$) and more CWB-O ($r = .42, p < .001$). Job demands were again not correlated with the workplace behaviors.

Hypothesis 2, which stated that employees with greater trait anger, trait hostility, external locus of control and entitled equity preference will report more job stressors, including lower interactional justice and higher interpersonal conflict, organizational constraints, and job demands, was partially supported using Time 1 self-reported personality and Time 2 self-reported job stressors. Data showed that correlations were consistent with the hypotheses, with the exception of relationships including job demands (Table 2). Trait anger correlated with interactional justice ($r = -.22, p < .001$), interpersonal conflict ($r = .40, p < .001$), and organizational constraints ($r = .37, p < .001$). Trait hostility correlated with interactional justice ($r = -.42, p < .001$), interpersonal

conflict ($r = .50, p < .001$), and organizational constraints ($r = .37, p < .001$). Internal locus of control correlated with interactional justice ($r = .40, p < .001$), interpersonal conflict ($r = -.31, p < .001$), and organizational constraints ($r = -.33, p < .001$). Entitled equity preference correlated with interactional justice ($r = -.42, p < .001$), interpersonal conflict ($r = .36, p < .001$), and organizational constraints ($r = .23, p < .001$).

Hypothesis 3 was supported using Time 1 self-reported personality and Time 3 supervisor-reported behaviors (Table 3). Specifically, greater trait hostility, trait anger, external locus of control, and entitled equity preference was related to less OCB and more CWB (absolute value of correlations ranged from .24 - .48, $p < .001$).

To test the overall pattern of relationships as proposed in Hypothesis 4a, a path analysis using the Time 1 self-report data was performed. Time 1 data was chosen based on the larger sample size ($n = 358$). This resulted in an identified model. However, the fit statistics were not satisfactory ($RMSEA = .20, NFI = .70, NNFI = .51, CFI = .71$), and parameter estimates were low.

The individual relationships proposed in Hypotheses 4a-c were then tested using bootstrapped Sobel analyses. Because most samples violate the assumption of normality, bootstrapping methods are generally preferred (Preacher & Hayes, 2004). Bootstrapping is a process that generates randomly sampled observations with replacement from the data set, and computes the statistic of interest in each resample. This process is repeated many times in order to approximate the sampling distribution of the statistic. This statistic can then be used in hypothesis testing that requires fulfillment of distributional assumptions.

The bootstrapping procedure is performed using the raw data in a process based on the Sobel test. To perform this procedure, a command set is executed in SPSS syntax, activating a macro (Preacher & Hayes, 2004). Larger resamples require more time, but provide more accurate estimates. Because of the large number of hypothesis tests, 1,000 resamples was chosen to balance estimation accuracy and computational workload.

Consequently, an alternative test of the mediational hypotheses 4a-c is based on the output from the bootstrapping macro (Table 4). Results from the bootstrapped analyses are mixed. Overall, the indirect effect of personality on supervisor-reported CWB, mediated by stressors (interpersonal conflict, low interactional justice, and organizational constraints) was significant except for hostility and interactional justice. In this case, the direct effect was not significantly reduced when mediated by interactional justice. The patterns for CWB-I and CWB-O were identical to that of overall CWB, consistent with the findings from the exploratory factor analysis.

The pattern for OCB was inconsistent. In all cases, trait anger was mediated by stressors (interpersonal conflict, low interactional justice, and organizational constraints). Equity preference and hostility were not mediated by interpersonal conflict, and hostility and locus of control were not mediated by organizational constraints. The pattern is more predictable when interpreting the interpersonal and organizational dimensions of OCB separately. Specifically, OCB-I was mediated only by interactional justice for all personality traits. Conversely, the relationship between personality and OCB-O was mediated by all stressors (interpersonal conflict, low interactional justice, and organizational constraints) except for the hostility/interpersonal conflict relationship.

Chapter Four

Discussion

The purpose of the current study was to propose and test relationships within a stressor-strain model of OCB and CWB. The study provides evidence that OCB and CWB be influenced by organizational stressors, and that personality, particularly trait specific emotion and attributional style, relate to job stressors and strains. Previous empirical research on the relationship between job stressors and OCB has been inconsistent, and this current study provides further evidence of a negative relationship between job stressors and OCB. Furthermore, the study of specific, trait emotion and attributional style goes beyond the relatively narrow set of personality variables used to study job stressors and OCB/CWB in the past, contributing to our understanding of how personal characteristics influence the organizational environment.

Based on the zero-order correlations, the relationships between personality and organizational behaviors are consistent with previous empirical and theoretical research. Specifically, previous reviews have encouraged the study of a broader range of personality characteristics, including discrete emotion (e.g. Lee & Allen, 2002), in the study of OCB and CWB. The current research supports the personality variables of trait anger, trait hostility, locus of control, and equity preference as correlates of OCB and CWB. Likewise, the job stress literature has focused on trait negative affect. Future

research in the area of specific personality characteristics may be beneficial in our understanding of how perception and vulnerability affect the experience and reporting of organizational stressors.

This study used a longitudinal design, as suggested by previous reviews in the area (e.g., Dalal, 2005). Recent research has shown that as little as 10% of mediational studies use full longitudinal designs (Maxwell & Cole, 2007). Collecting data at multiple time points has several advantages. First, separation of the predictor and criterion can result in effects that have greater stability and generalizeability. Also, collecting the independent and dependent variables at multiple time points can help rule out plausible alternatives such as autoregressive models. Future structural equation modeling analyses can be conducted with the data to examine autoregressive effects.

Another strength of the study design was the multi-source data. Some research has suggested that collecting data exclusively from one source may, under certain circumstances, lead to bias. Due to this potential problem, a vast amount of OCB and CWB research has used supervisor or peer-reports. However, it is ultimately unknown whether self-, peer-, or supervisor-reported data is the most accurate. Although the study did not address this question, this study supports previous research (e.g., Dalal, 2005; LePine, Erez, & Johnson, 2002; O'Brien & Allen, 2008) which suggests that factor model may vary based on source of data (self-report vs. supervisor support). This provides further evidence that supervisor-reports may not necessarily be more appropriate than self-reports. Specifically, correlations within self-reported variables and between self- and supervisor-reported variables varied greatly. Supervisor-reports showed less

distinction between interpersonal and organizational dimensions of the organizational behaviors, although self-reported data factored as expected, consistent with previous research (Dalal, 2004). This may indicate that supervisors rely on halo effect when rating these behaviors. Furthermore, it is unclear if the self-reported relationships are inflated, being generally stronger than self- and supervisor- reported data, or if the multiple source correlations are attenuated.

Overall, this study also provides implications for the factor structure of OCB and CWB. Specifically, the pattern of correlations indicates that there is a negative relationship between OCB and CWB. Furthermore, exploratory factor analysis showed that OCB and CWB are separate scales, contributing to the evidence that this is little scale or construct overlap.

Limitations

A major limitation was the analysis method used. Structural equation modeling is a more appropriate test of model fit than path analysis or testing of individual relationships. However, given the relatively low correlations among observed variables (e.g., organizational constraints and job demands, or trait anger and trait hostility), these measures cannot adequately represent a latent variable (e.g., organizational stressors or trait emotion). Future research designed at identifying and measuring indicators of personality and job stressors would provide broader analysis options and potentially contribute to supporting a stressor-strain model of OCB and CWB.

A notable limitation was the surprising lack of correlations with the job demands measure. Although previous research has used this scale successfully, the current study

showed almost no correlations between the job demands measure and the other study variables in any time points. This may indicate a problem with the data collection. However, because the null results are limited to the job demands measure, we expect that any such problems do not affect the remaining correlations, or at worst, attenuate the relationships.

Despite the positive correlations found in this study between OCB and job stressors, previous empirical research has been inconsistent in showing if the relationship between OCB and CWB is positive or negative. Theory has put forth that excessive OCB may cause job stress by increasing job demands, whereas other theory posits that job stressors may violate the psychological contract and discourage OCB. In other words, employees who perceive high job stressors may also perceive violation of the psychological contract, leading to decreased OCB, whereas employees with low job stressors may engage in OCB excessively, leading to increased job stress. A cyclical relationship could explain the contradictory correlational evidence and possibly be tested with a longitudinal design over many time points. This study used only three time points and is unable to address this research question.

Future Research

The OCB and CWB areas are limited by the lack of experimental research. A limited number of studies have used quasi-experimental design (Greenberg, 1990) or vignettes (Scott & Colquitt, 2007), but there is a dearth of experimental studies that include OCB or CWB as dependent variables. Experimental studies within an organization would be subject to ethical questions, pragmatic difficulties, and other such

obstacles. Conversely, experimental lab studies are thwarted by the lack of lab measures of OCB and CWB. Future research that validates such measures, perhaps based on the prosocial and antisocial social psychology literature, would be pivotal in our understanding of causality in OCB and CWB. For example, an experimental lab study would be better able to distinguish if stressors precede emotions (as suggested in Spector & Fox, 2002) and if trait emotion precedes stressors (as suggested in the current study). It is, of course, possible that trait emotion precedes stressors, which in turn precede state emotion. This relationship, too, could be tested in experimental research.

Experimental research in the area of self-esteem maintenance is one area that may prove fruitful. Research in social psychology shows that ego threat (for example, a negative public evaluation) can result in several reactions, including overcompensation, withdrawal, or aggression. This may be exhibited in the workplace as OCB and CWB in reaction to a negative performance evaluation. Although experimental manipulation of feedback would be unethical in an organization, a lab experiment would allow researchers to manipulate feedback value (positive, negative, or neutral) and measure if OCB or CWB occurs following the feedback. However, this experiment cannot be conducted without adequate lab measures of OCB and CWB.

Another potential way to study these causal relationships is with a real-time diary study. Employed participants could fill out a survey of personality traits prior to inception of diary-keeping. Then, for a period a week, participants could use a programmed cell phone, PDA, or computer to log their emotions and activities over the past hour. The activities could be coded as OCB, CWB, or other. This would allow

researchers to better understand how trait emotion and mood affect OCB and CWB.

Likewise, cortisol testing would help us understand the role of stress in OCB and CWB. Cortisol is a chemical produced by body when under stress and is relatively easy to measure. Employed participants could complete a survey of their personality constructs and general stress level prior to the cortisol testing. Then, for three days, participants could prepare their cortisol tests with a simple, painless cheek swab. The participant mails the sample in a prepackaged mailer to a laboratory, which then provides researchers with the results. Each day, the participants could also report their OCB and CWB, so that researchers can investigate if there is a link between the participants' cortisol level and their rates of OCB and CWB.

In addition to research suggestions, this study provides implications for practice. In this model, attributions were related to important workplace outcomes. Because attributions can be changed, organizations should consider using attribution training to help encourage positive workplace behavior and discourage detrimental workplace behavior. Previous interventions have been used in the clinical area and warrant investigation in the workplace.

Conclusion

Overall, this study proposed and partially supported a stressor-strain model of OCB and CWB. Despite some limitations, the data include multiple reporting sources and longitudinal design, consistent with previous research suggestions. In general, there was some support for this model, mostly from the bootstrapped Sobel analyses. Furthermore, the results provide further support for the model hypothesized by Spector and Fox (2002).

Specifically, part of the Spector and Fox (2002) model states that control perceptions and personality influence appraisal of the work environment as stressful. This is consistent with the current study, which measured control attributions (locus of control) and personality (equity preference, trait anger, and trait hostility) and showed that these relate to reporting of job stressors. Due to the self-reported nature of the stressors, it is fair to assume that we are measuring a person's appraisal of the environment as stressful, as opposed to objective workload and conflict. In the Spector and Fox (2002) model, appraisal then leads to emotion, which then effects OCB and CWB. Although the overall model could not be tested, the data provides preliminary support for the hypothesized model.

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Table 1

Intercorrelations among Time 1 variables (lower triangle) and Time 2 variables (upper triangle).

	LOC	EPQ	Anger	Hostile	IC	IJ	JD	OC	OCB-I	OCB-O	CWB-I	CWB-O	OCB	CWB
LOC	---	-.55	-.35	-.45	-.32	.43	.03	-.35	.36	.36	-.32	-.32	.39	-.33
EPQ	-.61	---	.43	.40	.41	-.41	-.02	.31	-.39	-.54	.38	.42	-.50	.41
Anger	-.36	.22	---	.65	.50	-.34	.07	.43	-.28	-.34	.52	.59	-.34	.58
Hostile	-.40	.31	.62	---	.48	-.50	.01	.42	-.28	-.35	.44	.49	-.34	.48
IC	-.25	.30	.20	.32	---	-.49	.33	.67	-.09	-.18	.61	.57	-.15	.60
IJ	.42	-.35	-.28	-.44	-.44	---	-.03	-.36	.48	.53	-.42	-.38	.55	-.41
JD	.05	-.13	.05	.05	.24	-.07	---	.52	.15	.14	.12	.06	.16	.08
OC	-.33	.19	.35	.36	.51	-.43	.47	---	-.06	-.17	.45	.46	-.13	.46
OCB-I	.32	-.35	-.17	-.27	-.19	.36	.13	-.10	---	.69	-.10	-.15	.93	-.12
OCB-O	.37	-.45	-.26	-.25	-.23	.48	.14	-.15	.73	---	-.26	-.34	.91	-.31
CWB-I	-.36	.39	.55	.46	.30	-.30	.04	.29	-.11	-.29	---	.86	-.19	.95
CWB-O	-.35	.40	.54	.51	.30	-.29	.01	.30	-.12	-.31	.88	---	-.26	.98
OCB	.37	-.43	-.23	-.28	-.22	.45	.14	-.14	.93	.92	-.21	-.22	---	-.23
CWB	-.36	.41	.56	.51	.31	-.30	.02	.31	-.12	-.31	.96	.98	-.23	---

Notes. LOC= locus of control, EP= equity preference, Anger= trait anger, Hostile= trait hostility, IC= interpersonal conflict, IJ= interactional justice,

JD= job demands, OC= organizational constraints.

N=205-212.

$r > .12, p < .05$. $r > .15, p < .01$. $r > .21, p < .001$.

Table 2

Correlations between Time 1 and Time 2 data.

	IC T2	JD T2	OC T2	IJ T2	LOC T2	EP T2	Hostile T2	Anger T2	OCB-I T2	OCB-O T2	CWB-I T2	CWB-O T2	OCB T2	CWB T2
IC	.58	.14	.35	-.42	-.27	.34	.32	.23	-.14	-.18	.42	.38	-.17	.41
JD	.10	.59	.24	-.09	.02	.00	.01	.04	.10	.12	.03	-.02	.12	.00
OC	.43	.27	.55	-.47	-.33	.19	.30	.27	-.14	-.17	.35	.28	-.17	.31
IJ	-.50	-.14	-.46	.60	.39	-.34	-.44	-.33	.27	.34	-.33	-.32	.33	-.32
LOC	-.31	.03	-.33	.40	.77	-.53	-.42	-.36	.36	.38	-.29	-.30	.40	-.31
EP	.36	-.13	.23	-.42	-.52	.72	.28	.26	-.35	-.43	.33	.32	-.42	.34
Hostile	.50	-.02	.37	-.42	-.45	.40	.76	.54	-.27	-.33	.37	.42	-.32	.42
Anger	.40	.04	.37	-.22	-.30	.34	.50	.73	-.26	-.31	.36	.41	-.31	.40
OCB-I	-.14	.09	-.06	.37	.31	-.37	-.28	-.23	.66	.46	-.05	-.07	.62	-.05
OCB-O	-.25	.09	-.18	.49	.34	-.50	-.28	-.31	.53	.61	-.17	-.21	.62	-.19
CWB-I	.53	.10	.39	-.34	-.32	.47	.42	.52	-.21	-.39	.62	.55	-.32	.60
CWB-O	.54	.07	.41	-.35	-.33	.48	.43	.51	-.24	-.41	.56	.61	-.35	.61
OCB	-.21	.10	-.13	.46	.35	-.46	-.30	-.29	.64	.58	-.11	-.15	.67	-.13
CWB	.56	.08	.42	-.37	-.34	.50	.44	.54	-.24	-.42	.61	.61	-.35	.63

Notes. T2= Time 2. LOC= locus of control, EP= equity preference, Anger= trait anger, Hostile= trait hostility, IC= interpersonal conflict, IJ= interactional justice, JD= job demands, OC= organizational constraints.

N=205-212.

$r > .12$, $p < .05$. $r > .15$, $p < .01$. $r > .21$, $p < .001$.

Table 3

Variable means, standard deviations, and correlations with supervisor-report data.

	Time	Mean	SD	OCB-I T3	OCB-O T3	CWB-I T3	CWB-O T3	OCB T3	CWB T3
IC	1	75.03	12.78	-.26	-.33	.39	.41	-.31	.41
JD	1	45.34	16.01	.02	.01	.04	.02	.01	.03
OC	1	24.98	10.41	-.16	-.21	.37	.37	-.19	.38
IJ	1	23.94	11.86	.37	.43	-.30	-.29	.41	-.30
LOC	1	6.29	3.13	.37	.39	-.30	-.32	.40	-.32
EP	1	22.17	5.67	-.38	-.40	.36	.39	-.40	.38
Hostile	1	15.82	5.07	-.34	-.35	.45	.48	-.36	.48
Anger	1	21.84	9.71	-.23	-.23	.41	.41	-.24	.42
OCB-I	1	37.02	8.48	.63	.47	-.13	-.13	.57	-.13
OCB-O	1	39.66	7.94	.46	.47	-.17	-.17	.49	-.18
CWB-I	1	13.68	9.37	-.26	-.32	.58	.52	-.30	.55
CWB-O	1	22.68	14.95	-.27	-.34	.55	.58	-.31	.58
OCB	1	76.67	15.26	.59	.51	-.16	-.16	.57	-.16
CWB	1	36.45	23.83	-.28	-.35	.58	.58	-.33	.59
IC	2	75.09	13.33	-.23	-.32	.56	.58	-.29	.58
JD	2	45.96	15.92	.01	-.04	.08	.07	-.02	.08
OC	2	24.64	10.56	-.18	-.29	.40	.42	-.24	.42
IJ	2	23.64	11.71	.36	.42	-.32	-.33	.41	-.33
LOC	2	6.00	3.06	.37	.39	-.32	-.34	.40	-.34
EP	2	22.52	5.48	-.45	-.50	.42	.46	-.49	.46
Hostile	2	15.17	5.3	-.37	-.38	.39	.41	-.39	.41
Anger	2	21.88	9.86	-.26	-.27	.42	.43	-.27	.44
OCB-I	2	36.3	8.84	.56	.49	-.16	-.17	.55	-.17
OCB-O	2	39.27	8.2	.46	.50	-.26	-.28	.50	-.28
CWB-I	2	13.33	9.23	-.22	-.29	.72	.66	-.27	.70
CWB-O	2	22.79	14.57	-.20	-.28	.65	.67	-.25	.68
OCB	2	75.58	15.67	.56	.53	-.23	-.25	.57	-.24
CWB	2	35.86	22.85	-.21	-.30	.70	.69	-.27	.71
OCB-I	3	38.25	9.23	---	---	---	---	---	---
OCB-O	3	39.72	8.94	.85	---	---	---	---	---
CWB-I	3	12.53	9.38	-.39	-.44	---	---	---	---
CWB-O	3	20.91	15.55	-.41	-.47	.92	---	---	---
OCB	3	77.97	17.48	.96	.96	-.43	-.46	---	---
CWB	3	33.43	24.46	-.41	-.47	.97	.99	-.46	---

Notes. T3= Time 3. LOC= locus of control, EP= equity preference, Anger= trait anger, Hostile= trait hostility, IC= interpersonal conflict, IJ= interactional justice, JD= job demands, OC= organizational constraints.

N=205-212. $r > .12$, $p < .05$. $r > .15$, $p < .01$. $r > .21$, $p < .001$.

Table 4

Results from bootstrapped Sobel tests.

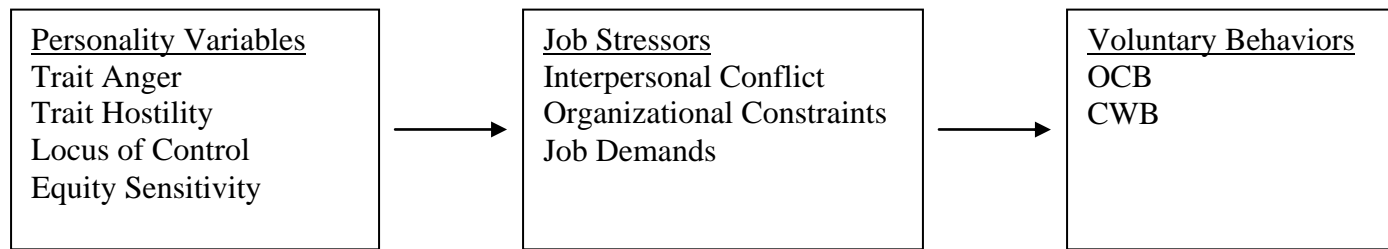
		CWB T3			CWB-I T3			CWB-O T3		
IV	M	Mean	LB 95% CI	UB 95% CI	Mean	LB 95% CI	UB 95% CI	Mean	LB 95% CI	UB 95% CI
Anger	IC	.46	.19	.79	.17	.07	.29	.29	.12	.50
Anger	IJ	.14	.02	.30	.05	.01	.11	.09	.01	.20
Anger	OC	.27	.09	.48	.10	.04	.80	.18	.06	.32
EP	IC	.29	.14	.47	.10	.05	.17	.18	.08	.30
EP	IJ	.13	.01	.27	.05	.01	.11	.08	.01	.18
EP	OC	.13	.04	.24	.05	.01	.09	.08	.03	.15
Hostile	IC	.47	.23	.76	.18	.09	.29	.29	.13	.46
Hostile	IJ	.14	-.02	.33	.06	-.00	.14	.09	-.01	.22
Hostile	OC	.22	.08	.41	.08	.03	.15	.14	.05	.26
LOC	IC	-.31	-.49	-.16	-.12	-.18	-.06	-.19	-.31	-.11
LOC	IJ	-.19	-.35	-.03	-.07	-.13	-.02	-.12	-.22	-.02
LOC	OC	-.23	-.40	-.09	-.08	-.14	-.03	-.14	-.25	-.06

		OCB T3			OCB-I T3			OCB-O T3		
IV	M	Mean	LB 95% CI	UB 95% CI	Mean	LB 95% CI	UB 95% CI	Mean	LB 95% CI	UB 95% CI
Anger	IC	-.15	-.28	-.04	-.06	-.12	.01	-.09	-.17	-.03
Anger	IJ	-.14	-.25	-.03	-.07	-.13	-.02	-.07	-.14	-.02
Anger	OC	-.11	-.23	-.01	-.04	-.09	.02	-.08	-.14	-.02
EP	IC	-.06	-.14	.00	-.02	-.06	.01	-.04	-.09	-.01
EP	IJ	-.13	-.23	-.06	-.06	-.11	-.02	-.07	-.12	-.04
EP	OC	-.04	-.09	-.01	-.01	-.04	.01	-.03	-.06	-.01
Hostile	IC	-.11	-.26	.04	-.03	-.10	.05	-.08	-.15	.00
Hostile	IJ	-.20	-.32	-.09	-.09	-.15	-.04	-.11	-.18	-.05
Hostile	OC	-.07	-.17	.02	-.02	-.06	.03	-.06	-.11	-.01
LOC	IC	.08	.00	.16	.03	-.01	.07	.05	.01	.01
LOC	IJ	.17	.08	.26	.08	.03	.13	.09	.04	.14
LOC	OC	.06	-.02	.14	.01	-.02	.06	.04	.01	.06

Notes. IV= independent variables measure at Time 1, M= mediating variables measured at time 2, T3= time 3, Anger= trait anger, EP= equity preference, Hostile= trait hostility, LOC= locus of control, IC= interpersonal conflict, IJ= interactional justice, OC= organizational constraints, LB 95% CI= lower bound 95% confidence interval, UP 95% CI= upper bound 95% confidence interval.

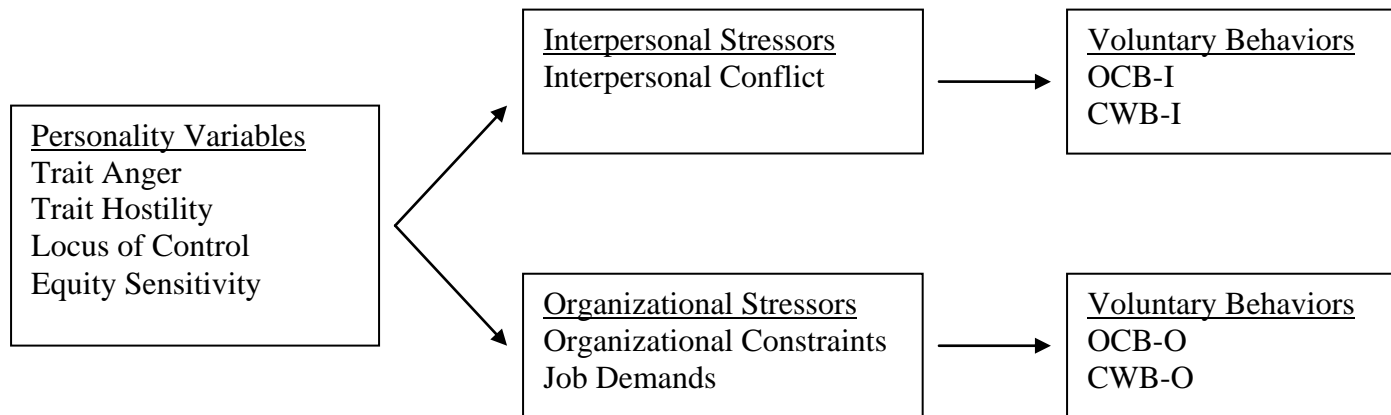
Gray cells indicate that the confidence interval includes zero.

Figure 1.



Job Stressor-Mediated Model of OCB and CWB.

Figure 2.



Job Stressor-Mediated Model of Target Based OCB and CWB.

Appendices

Appendix A

Self-Report Survey

1. Introduction

Thank you for participating in this online survey, **funded by the National Institute of Occupational Safety and Health (NIOSH), part of the CDC (project #6402101300)**. The following questions ask you to reflect on various experiences at work. The survey should take between 20 and 30 minutes to complete.

According to CDC research regulations, only complete and accurate data is eligible for reimbursement for your time. We have methods of ensuring this so **please do not jeopardize your payment by participating more than once under different Study ID#s or responding randomly to these questions.**

Please be candid when you complete the questions. There are no right or wrong answers. Your responses will be averaged with the responses of other participants. All responses will remain confidential and individual responses will not be identified.

If you have any questions about this research study, please contact the primary investigator, Kimberly O'Brien, by email (kobrien4@mail.usf.edu).

Thank you very much for your time and participation!

1. Please enter your Study Response ID to continue. Your ID can be found on the email that invites you to participate in this study.

***Due to government regulations on data confidentiality, payment is sent to your Study Response ID# (not name, IP address, etc) so incorrect ID#s will not receive reimbursement. We apologize for any inconvenience.**

2. Workplace Environment

The following four sections include questions about your work environment. There are no right or wrong answers, and your responses are completely confidential. Please take your time to think about each question before responding, and be as candid as possible. We really appreciate your help with this survey.

Appendix A continued

1. Please indicate how often you experience the situation described in each of the statements below using the following scale.

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
How often do you get into arguments with others at work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do other people yell at you at work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often are people rude to you at work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do other people do nasty things to you at work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does your job require you to work very fast?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does your job require you to work very hard?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does your job leave you with little time to get things done?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often is there a great deal to be done?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do you have to do more work than you can do well?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Please indicate how often you find it difficult or impossible to do your job because of each of the statements below using the following scale.

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
Poor equipment or supplies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational rules and procedures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other employees?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your supervisor?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of equipment or supplies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate training?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interruptions by other people?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of necessary information about what to do or how to do it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conflicting job demands?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate help from others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorrect instructions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

3. The following questions concern how you feel about your workplace.

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
My work schedule is fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think my level of pay is fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my workload to be quite fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, the rewards I receive here are quite fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my job responsibilities are fair.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job decisions are made by management in an unbiased manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management makes sure that all employee concerns are heard before job decisions are made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To make job decisions, my manager collects accurate and complete information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All job decisions are applied consistently across all affected employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employees are allowed to challenge or appeal job decisions made by the manager.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. The following questions concern how you are treated by coworkers.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
Do your coworkers treat you in a polite manner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do your coworkers treat you with dignity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do your coworkers treat you with respect?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do your coworkers refrain from making improper remarks or comments?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Workplace Behaviors

The following three sections concern behaviors you engage in at work. There are no right or wrong answers, and all of the information you report below will be completely confidential. Please be as candid as possible. No one from your work, school, family, etc., has access to this information. Thank you again for your participation in this survey.

Appendix A continued

1. Please use the scale below to rate how much you agree with each of the following statements.

	Never	Rarely	Occasionally	Sometimes	Often	Usually	Always
I help others who have been absent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help others who have heavy workloads.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I assist supervisor with his/her work, even when not asked.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take time to listen to co-workers' problems and worries.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I go out of my way to help new employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a personal interest in other employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I pass along information to co-workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My attendance at work is above the norm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I give advance notice when unable to come to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not take undeserved work breaks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not spend a great deal of time with personal phone conversations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not complain about insignificant things at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I conserve and protect organizational property.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I adhere to informal rules devised to maintain order at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

2. Please use the scale below to rate how often you engage in the following behaviors.

	Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily
Made fun of someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Said something hurtful to someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made an ethnic, religious, or racial remark at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cursed at someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Played a mean prank on someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acted rudely toward someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Publicly embarrassed someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taken property from work without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spent too much time fantasizing or daydreaming instead of working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Falsified a receipt to get reimbursed for more money than you spent on a business expense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taken an additional or longer break than is acceptable at your workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Come in late to work without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Littered your work environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neglected to follow your instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intentionally worked slower than you could have worked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussed confidential company information with an unauthorized person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Used an illegal drug or consumed alcohol on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Put little effort into your work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dragged out work in order to get overtime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

3. During the past 30 days did you have any of the following symptoms? If you did have the symptom, did you see a doctor about it?

	No	Yes, but I didn't see doctor	Yes, and I saw doctor
An upset stomach or nausea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A backache	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble sleeping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A skin rash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shortness of breath	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chest pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Headache	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fever	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acid indigestion or heartburn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eye strain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diarrhea	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stomach cramps (Not menstrual)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Constipation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heart pounding when not exercising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An infection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loss of appetite	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dizziness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tiredness or fatigue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Workplace Attitudes

The following sections will ask you about your feelings about working. Again, there are no right or wrong answers, and your responses are completely confidential. Please take your time to think about each question before responding, and be as candid as possible. This information will hopefully help us determine how to improve the workplace.

Appendix A continued

1. The following questions concern your beliefs about jobs in general. They do not refer only to your present job. Please base your responses on the following scale.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
A job is what you make of it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On most jobs, people can pretty much accomplish whatever they set out to accomplish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If you know what you want out of a job, you can find a job that gives it to you.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If employees are unhappy with a decision made by their boss, they should do something about it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting the job you want is mostly a matter of luck.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making money is primarily a matter of good fortune.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most people are capable of doing their jobs well if they make the effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In order to get a really good job, you need to have family members or friends in high places.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotions are usually a matter of good fortune.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When it comes to landing a really good job, who you know is more important than what you know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotions are given to employees who perform well on the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To make a lot of money you have to know the right people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It takes a lot of luck to be an outstanding employee on most jobs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People who perform their jobs well generally get rewarded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most employees have more influence on their supervisors than they think they do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The main difference between people who make a lot of money and people who make a little money is luck.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

2. The following questions concern your beliefs about jobs in general. They do not refer only to your present job. Please base your responses on the following scale.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
I prefer to do as little as possible at work while getting as much as I can from my employer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am most satisfied at work when I have to do as little as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am at my job, I think of ways to get out of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I could get away with it, I would try to work just a little bit slower than the boss expects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is really satisfying to me when I can get something for nothing at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is the smart employee who gets as much as he/she can while giving as little as possible in return.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employees who are more concerned about what they can get from their employer rather than what they can give to their employer are the wise ones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have completed my task for the day, I help out other employees who have yet to complete their tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Even if I received low wages and poor benefits from my employer, I would still try to do my best at my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I had to work hard all day at my job, I would probably quit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel obligated to do more than I am paid to do at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At work, my greatest concern is whether or not I am doing the best job I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A job which requires me to be busy during the day is better than a job which allows me a lot of loafing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At work, I feel uneasy when there is little work for me to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would become very dissatisfied with my job if I had little or no work to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All other things being equal, it is better to have a job with a lot of duties and responsibilities than one with few duties and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

responsibilities.

3. Please indicate how much you agree with the following statements. These questions will ask you how you feel about work in general. They do not refer to your current job and coworkers, but about general working conditions.

	Never	Rarely	Sometimes	Often	Usually	Always
If a coworker ignores me, it is probably not on purpose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When coworkers leave me out of social events, it is to hurt my feelings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If coworkers do not appreciate me enough, it is because they are self-centered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If coworkers work slowly on a task I assigned them, it is because they don't like me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If people are laughing at work, I think they are laughing at me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If coworkers bump into me, it is an accident.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When coworkers leave me out of social events, there is a good reason.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If coworkers ignore me, it is because they are being rude.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coworkers deliberately make my job more difficult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When my things are missing, they have probably been stolen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Questions about You

There are no right or wrong answers to the following questions, and your responses are completely confidential. Please take your time to think about each question before responding, and be as candid as possible. We really appreciate your help with this survey.

Appendix A continued

1. Please indicate the amount you agree that each of the statements below describes you, in general.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
I am sometimes eaten up with jealousy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At times I feel I have gotten a raw deal out of life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other people always seem to get the breaks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wonder why sometimes I feel so bitter about things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know that "friends" talk about me behind my back.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am suspicious about overly friendly neighbors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I sometimes feel that people are laughing at me behind my back.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When people are especially nice, I wonder what they want.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Read each of the following statements that people have used to describe themselves, then write in the number that indicates how much you generally feel or react. There are no right or wrong answers. Do not spend too much time on any one statement. Mark the answer that best describes how you generally feel or react.

	Never	Rarely	Sometimes	Often	Usually	Always
I am quick-tempered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a fiery temper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a hot-headed person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get angry when I'm slowed down by others' mistakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel annoyed when I am not given recognition for doing good work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I fly off the handle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get mad, I say nasty things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It makes me furious when I am criticized in front of others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get frustrated, I feel like hitting someone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel infuriated when I do a good job and get a poor evaluation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A continued

3. Please think about how often you experience the following emotions ON AVERAGE. In other words, please state how often the emotion describes you, in general.

	Never	Rarely	Sometimes	Often	Usually	Always
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Please indicate the amount you agree that each of the statements below describes you, in general.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
I know that I am good because everybody keeps telling me so.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to be the center of attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I am a special person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like having authority over people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it easy to manipulate people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I insist upon getting the respect that is due me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am likely to show off if I get the chance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always know what I am doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everybody likes to hear my stories.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I expect a great deal from other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It makes me uncomfortable to be the center of attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being an authority does not mean that much to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am going to be a great person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can make anybody believe anything I want them to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more capable than other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am much like everybody else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Mentoring Experiences

Appendix A continued

This section is concerned with your workplace mentoring experience. A mentor is generally defined as a higher-ranking, influential individual in the protégé's work environment who has advanced experience and knowledge and is committed to providing support in the protégé's career. A mentor may or may not be in the same department or unit as the protégé, and the mentor may or may not be the protégé's immediate supervisor. If you have more than one mentor, please choose just one and think about your relationship with this mentor as you complete the survey.

1. Have you ever had a workplace mentor?

- Yes
 No

2. How many workplace mentors have you had?

- 0
 1
 2
 3
 more than 3

If you have been involved in more than one mentoring relationship, **please think about your current or most recent relationship.** Answer the following questions with that particular relationship in mind.

3. How long was the length of your mentoring relationship?

In months:

4. Please answer the following questions.

	Yes	No
Is the relationship still ongoing?	<input type="radio"/>	<input type="radio"/>
Was/Is your mentor your immediate supervisor?	<input type="radio"/>	<input type="radio"/>
Was/Is your mentor in the same organization as you?	<input type="radio"/>	<input type="radio"/>

5. On average, how many hours did you and your mentor interact?

Per week

6. In order to assist individuals in their career development and advancement, some organizations have established "formal mentoring programs", where proteges and mentors are linked in some way. This may be accomplished by assigning mentors or by just providing formal opportunities aimed at developing a relationship. So, formal mentoring relationships are developed with outside assistance, while informal mentoring relationships are developed spontaneously, without outside assistance.

- My mentorship was informal (spontaneously developed)
 My mentorship was formal (based on formal assignment)

Appendix A continued

7. What is the biological sex of your mentor?

- Male
- Female

8. What is your mentor's racial/ethnic heritage?

- White/Anglo or European American
- Black/African American
- Asian, Asian American, Pacific Islander
- Hispanic/Latino(a)
- Native American
- Bi-racial or multi-racial
- Other

9. How old is your mentor?

- Much older than you
- Slightly older than you
- About the same age
- Slightly younger than you
- Much younger than you

10. What is your mentor's job title?

11. Please answer the following questions.

Approximately how many MONTHS has your mentor been working at this job title?

Approximately how many MONTHS has your mentor been working at this organization?

12. In a few words, please describe three ways you and your mentor are SIMILAR.

1.
2.
3.

13. In a few words, please describe three ways you are DIFFERENT from your mentor.

1.
2.
3.

Appendix A continued

14. The following section concerns your relationship with your mentor.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
My mentor takes a personal interest in my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor helps me coordinate professional goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor has devoted special time and consideration to my career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share personal problems with my mentor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I exchange confidences with my mentor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my mentor to be a friend.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to model my behavior after my mentor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I admire my mentor's ability to motivate others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I respect my mentor's ability to teach others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. The following section concerns how you interact with your mentor.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
The personal values of my mentor are different from my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor and I are different from one another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor seems to have "more important things to do" than to meet with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor keeps me "out of the loop" on important issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor has asked me to do his/her "busy work."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor has deliberately misled me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor takes credit for my hard work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have doubts about my mentor's job-related skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor does not know much about the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor brings his/her personal problems to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mentor approaches tasks with a negative attitude.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Demographics

Please take a moment to complete the following demographic information. This information is ONLY used to make sure we have given this survey to a broad range of people. In other words, we want to make sure that males and females, people of all age groups, and people of every ethnicity are given the opportunity to report their information in this survey. The information will not be linked to your information and cannot be used to identify you.

Appendix A continued

1. What is your biological sex?

- Male
- Female

2. What is your racial/ethnic heritage?

- White/Anglo or European American
- Black/African American
- Asian, Asian American, Pacific Islander
- Hispanic/Latino(a)
- Native American
- Bi-racial or multi-racial
- Other

3. What is your age in years?

4. In what industry is your job (e.g., legal, retail, sales)?

5. What is your job title?

6. Please answer the following questions.

How many HOURS per week do you typically work each week?

How many MONTHS have you been working at this job title?

How many MONTHS have you been working at this organization?

7. Do you have any final thoughts or comments for the researchers?

Appendix B

Supervisor-Report Survey

1. Introduction

Thank you for participating in this online survey, **funded by the National Institute of Occupational Safety and Health (NIOSH), part of the CDC (project #6402101300)**. The following questions ask you to reflect the person who sent you this survey link. **The entire survey should take only 5 minutes to complete.**

Please be assured that the researchers are the only individuals who will have access to the survey responses. The person that sent you the survey link will not see your responses and your responses will not be shared with him/her.

Please be candid when you complete the questions. There are no right or wrong answers. Your responses will be averaged with the responses of other participants. All responses will remain confidential and individual responses will not be identified.

If you have any questions about this research study, please contact the primary investigator, Kimberly O'Brien (kobrien4@mail.usf.edu)

Thank you.

1. Please enter your Study Response ID to continue. This must match the ID provided in your email invitation in order for your coworker to receive credit for participation.

2.

The following questions concern the behaviors your employee engages in at work. There are no right or wrong answers, and all of the information you report below will be completely confidential so please be as candid as possible. No one from your work, family, etc., has access to this information. Thank you again for your participation in this survey.

1. Please use the scale below to rate how often the employee who sent you this survey engages in each of the following behaviors.

	Never	Rarely	Occasionally	Sometimes	Often	Usually	Always
This employee helps others who have been absent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee helps others who have heavy workloads.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee assists his/her supervisors with their work, even when not asked.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee takes time to listen to co-workers' problems and worries.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee goes out of his/her way to help new employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee takes a personal interest in other employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee passes along information to co-workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee's attendance at work is above the norm.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee gives advance notice when unable to come to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee does not take undeserved work breaks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee does not spend great deal of time with personal phone conversations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee does not complain about insignificant things at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee conserves and protects organizational property.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This employee adheres to informal rules devised to maintain order at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B continued

2. Please use the scale below to rate how often this employee engages in the following behaviors.

	Never	Once a year	Twice a year	Several times a year	Monthly	Weekly	Daily
Made fun of someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Said something hurtful to someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made an ethnic, religious, or racial remark at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cursed at someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Played a mean prank on someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acted rudely toward someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Publicly embarrassed someone at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taken property from work without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spent too much time fantasizing or daydreaming instead of working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Falsified a receipt to get reimbursed for more money than he/she spent on a business expense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taken an additional or longer break than is acceptable at your workplace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Come in late to work without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Littered his/her work environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neglected to follow your instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intentionally worked slower than he/she could have worked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussed confidential company information with an unauthorized person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Used an illegal drug or consumed alcohol on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Put little effort into his/her work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dragged out work in order to get overtime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. What is your biological sex?

- Male
 Female

4. What is your age?

Appendix B continued

5. What is your racial/ethnic heritage?

- White/Anglo or European American
- Black/African American
- Asian, Asian American, Pacific Islander
- Hispanic/Latino(a)
- Native American
- Bi-racial or multi-racial
- Other

6. In what industry is your job (e.g., legal, sales, retail)?

7. What is your job title?

8. Please round to the nearest whole number when answering the following questions.

- How many hours a week do you work, on average?
- How long have you been working at this position, in months?
- How long have you been working at this organization, in months?
- How long have you known this employee, in months?

About the Author

Kimberly E. O'Brien received a Bachelor's Degree in Honors Psychology and Sociology from the University at Albany, State University of New York in 2002. She was awarded a Presidential Fellowship to attend the Ph.D program at the University of South Florida. While in the program, Kimberly O'Brien served as Vice President of the Graduate and Professional Student Organization as well as the Psychology Graduate Student Organization. She has also coauthored four publications in peer reviewed journals, a book chapter, and approximately 20 conference presentations.