ABSTRACT

BAKER, BECCA A. The Good, the Bad, and the Ugly: The Mediating Role of Attributional Style in the Relationship between Personality and Performance. (Under the direction of Samuel B. Pond).

Previous research has shown that personality traits, specifically the Five-Factor Model (FFM) and affect, are significant predictors of job performance, including organizational citizenship behavior (OCB) and counterproductive work behavior (CWB) (Barrick & Mount, 1991; Organ & Ryan, 1995). However, some debate exists regarding which individual difference variables account for the most variance. The present study tests a causal model of counterproductive behavior by Martinko, Gundlach, and Douglas (2002) which proposes that individuals' attributions about workplace events act as mediators between personality and CWB. This model is also examined regarding its generalizability to OCB.

One hundred and thirty-nine employees of a national senior care organization filled out self-report questionnaires regarding their personality. Subsequently, their immediate supervisors completed performance evaluations that included items addressing CWB and OCB. Structural equation modeling revealed that attributional style did not act as mediator between personality and CWB or OCB. In addition, none of the individual differences variables predicted CWB or OCB. A post hoc cluster analysis was used to examine the appropriateness of the scoring method used for attributional style. The implications of these results and directions for future research are discussed.

The Good, the Bad and the Ugly: The Mediating Role of Attributional Style in the Relationship between Personality and Performance

by

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BIOGRAPHY

Becca Ann Baker was born in Marietta, Georgia on March 14, 1978 to parents Hugh and Nancy Platten. She graduated from Pensacola High School in Pensacola, Florida in 1996 and entered Baylor University that fall. She graduated with a Bachelor of Arts degree in Psychology in 1999. After graduation Becca moved to Gainesville, Florida to support her husband, Jeremy Baker, as he pursued his medical studies. During that time she was employed at the Center for Applications of Psychological Type (CAPT). Upon her acceptance to graduate school at NC State and Jeremy's acceptance for residency at Duke University she moved to Durham, North Carolina and began her graduate studies in the fall of 2002.

Becca has taught Introduction to Psychology and served as a laboratory instructor for undergraduate courses in Research Methods and Statistics. In addition, she has worked as a research assistant in the Office of University Planning and Analysis at NC State. She is presently employed as a research consultant for the National O*NET Center in Raleigh, NC.

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Statement of the Problem

Previous research has shown that personality is a significant predictor of job performance, including organizational citizenship behavior (OCB) and counterproductive work behavior (CWB) (Barrick & Mount, 1991; Hough, 1992; Organ & Ryan, 1995). However, there is some debate regarding which individual differences variables account for the most variance and are, therefore, the best predictors. A great deal of effort has been invested in the examination of the personality constructs captured by the Five-Factor Model (FFM) and measures of positive and negative affect (Barrick & Mount, 1991; Organ & Ryan, 1995; Watson, Clark, & Tellegen, 1988). These constructs have been associated with OCB and CWB, however many of these relationships are weak and are influenced by common source bias (Aquino, Lewis, & Bradfield, 1999; Organ & Ryan, 1995). A third, less researched individual difference variable, is attributional style. This variable represents the type of attribution that an individual makes across situations. Recently, Martinko, Gundlach, and Douglas (2002) presented a causal model of counterproductive behavior which proposes that individuals' attributions about workplace events are primary factors which act as mediators between personality and counterproductive behavior. Few studies have examined this model in order to determine its validity. This study attempts to establish a link between individuals' dispositional characteristics and their subsequent organizational citizenship and counterproductive behavior at work by utilizing different rating sources. In addition, the inclusion of attributional style as a mediator variable provides information for assessing the underlying causes of these relationships

A survey composed of items from Goldberg's (1999) public domain FFM measure (IPIP, 2001), the Positive and Negative Affect Schedule (PANAS) (Watson, Clark, &

Tellegen, 1988), and the Organizational Attributional Style Questionnaire (OASQ) (Kent & Martinko, 1995) were administered to employees of a large corporation. The supervisor of each participant completed a survey made up of items from the OCB measure created by Podsakoff, MacKenzie, Moorman, and Fetter (1990) and Bennett and Robinson's (2000) measure of interpersonal and organizational deviance.

Section I: Literature Review

The two performance constructs of organizational citizenship behavior and counterproductive work behavior, by definition, appear to stand in stark contrast to each other. Citizenship behaviors are those that facilitate organizational functioning, such as helping a coworker or maintaining a positive attitude at work, but are not necessarily explicit job requirements. Counterproductive behaviors, on the other hand, are detrimental or potentially destructive behaviors that can hurt the organization and its employees (Miles, Borman, Spector, & Fox, 2002). Interestingly, two recent studies have provided evidence for the existence of a relationship between citizenship behavior and counterproductive behavior and encourage a search for shared antecedents of the two constructs. McHenry, Hough, Toquam, Hanson, & Ashworth (1990) found a moderate correlation of -.59 between citizenship performance and counterproductive behavior in their study of military jobs. A similar result was determined by Sackett and DeVore (2001), where they utilized data from Hunt's (1996) study of hourly entry-level jobs to find a correlation of -.67 between OCB and CWB.

Few researchers have investigated the common antecedents that may exist between citizenship behaviors and counterproductive behaviors. However, Spector and Fox (2002) have recently developed a model that integrates both behaviors and shows commonalities and

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differences in the personal and environmental factors that are the antecedents of both. An empirical study of this model provided general support for the premise that similar processes may impact OCB and CWB (Miles et al., 2002). A second empirical study, unrelated to the model proposed by Spector and Fox, found significant correlations between affect and cognitions and citizenship behavior and workplace deviance (Lee & Allen, 2002). Undoubtedly, there is an increased interest in the shared antecedents of OCB and CWB, but at this point in time the literature devoted to this issue is sparse.

Two sets of individual differences constructs consistently receiving attention in research involving citizenship and counterproductive behavior are the Five–Factor Model of personality and affect. Conscientiousness, Agreeableness, and Emotional Stability are three of the five factors that have demonstrated significant relationships with OCB and CWB. Meta-analyses of the FFM and both counterproductive and citizenship behavior reveal small, but significant, correlations ranging from .23 to .35 (Organ & Ryan, 1995; Salgado, 2002). However, many of the studies included in these meta-analyses suffer from common source bias. A similar problem exists in the research regarding positive and negative affect. Researchers have demonstrated significant relationships between positive affect and OCB and negative affect and CWB, but these relationships are undoubtedly augmented because ratings have been obtained from a common rating source.

Attributional style is a third variable that has recently been introduced as a viable antecedent of counterproductive behavior. Martinko and Zellars (1998) argue for the inclusion of this dispositional variable based on its relationship to the actual attributions that an individual makes regarding events at work. These attributions may determine whether or not an individual performs counterproductive work behavior. This variable is somewhat

different from the previously mentioned constructs in that it has the potential to provide a link between disposition and behavior and may explain the causal reasoning process that leads to CWB (Martinko & Zellars, 1998). There has been no systematic research linking attributional style to citizenship behavior.

This research study examines the relationship of the dispositional variables of the FFM, positive and negative affect, and attributional style with both organizational citizenship and counterproductive behavior. It is an attempt to both replicate and improve upon previous investigations of these relationships by utilizing different rating sources for the predictors and criteria. In addition, the present research explores the relationship between attributional style and organizational citizenship behavior. Specifically, attributional style is tested as a mediator between personality and CWB and OCB. The following sections clarify the two performance constructs of organizational citizenship behavior and counterproductive work behavior and discuss the instruments that are used to measure both variables.

Organizational Citizenship Behavior (OCB)

Organ and his colleagues (Smith, Organ, & Near, 1983) first presented the term "organizational citizenship behavior" in the early 1980s. OCBs are not always formally recognized by an organization's reward system and are not necessarily job requirements. However, this type of behavior has become increasingly important to understand as organizations shift away from strict hierarchical structures and individualized jobs (LePine, Erez, & Johnson, 2002). For example, autonomous work teams have now become more common and there exists a need for increased individual cooperation and initiative. Behavior of this type contributes to maintenance and enhancement of the social structure within an organization, which can improve overall job performance. Citizenship behaviors cannot be

fully specified in a job description, but are nonetheless necessary for successful job performance. Examples of citizenship behavior include helping others with their jobs, supporting the efforts of the organization, and volunteering for additional responsibilities (Borman, Penner, Allen, & Motowildo, 2001).

Researchers have described organizational citizenship behavior in a number of ways. Organ (1988) proposed a five-dimension framework classifying OCB. The dimensions include altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. Altruism includes voluntary actions that help another person with a work problem, for example, helping a co-worker catch up on a backlog of work. Conscientiousness can be defined as going beyond the enforceable minimum on such matters as attendance, punctuality, and neatness. In other words, it involves adhering to the spirit, and not just the letter, of rules and policies (Organ & Lingl, 1995). Sportsmanship is the willingness to accept minor frustrations or inconveniences without complaint. Courtesy is the extent to which one helps prevent others' problems with advance consultation, information, and respect for their needs. Lastly, civic virtue is responsible, constructive involvement in the political processes of the organization.

In addition to the framework proposed by Organ (1988), a number of other scholars have developed varying labels and dimensions for citizenship-like behavior. For example, contextual performance (Borman & Motowildo, 1997) distinguishes itself from OCB in that the behaviors simply have to be non-task and contribute to the enhancement of the context of work. However, many of the dimensions of contextual performance are similar in description to OCB. Moorman and Blakely (1995) support Organ's definition of OCB, but argue for the existence of four dimensions instead of five. A recent review of existing literature by

Podsakoff, Mackenzie, Paine, & Bachrach (2000) identified seven common themes in the OCB construct including helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue, and self-development. One reason for the proliferation of labels and dimensions for this construct is that research has focused more on understanding the relationships between citizenship behavior and other constructs rather than defining the nature of citizenship behavior itself (Pond, Nacoste, Mohr, & Rodriguez, 1997). In addition, the growth of OCB research has occurred across organizational domains including human resource management, organizational behavior, and leadership, making a coherence of the construct difficult.

For this research, Organ's (1988) definition of citizenship behavior is utilized. This framework has the longest history and has received the most attention in empirical studies (LePine et al., 2002). In large part this is because researchers have typically used a psychometrically sound five dimensional measure of the construct developed by Podsakoff et al. (1990). This instrument is used to assess citizenship behavior in this study.

Counterproductive Work Behavior (CWB)

In stark contrast to the aforementioned citizenship behaviors are counterproductive work behaviors. As a group, these behaviors are detrimental or potentially destructive to the organization and its employees (Miles et al., 2002). Gruys and Sackett (2003) define CWB as an intentional behavior on the part of an employee viewed by the organization as contrary to its legitimate interests. This definition focuses on intentional behaviors, not accidental actions that may cause harm. The study of CWB began by examining specific behaviors such as theft and absenteeism and has progressed into an investigation of the pattern of relationships between behaviors such as property deviance and production deviance (Sackett

& DeVore, 2001). Property deviance refers to behaviors that involve the misuse of employer assets such as theft or property damage. Production deviance encompasses behaviors that violate work norms such as tardiness or slow and sloppy work (Hollinger & Clark, 1983b).

One proposed framework for classifying CWB suggests that deviant work behaviors vary along two dimensions: interpersonal versus organizational and minor versus serious (Robinson & Bennett, 1995). The first dimension reflects the extent to which deviant behaviors are harmful to employees or harmful to the organization. The second dimension indicates deviant behaviors that range from not serious to serious and harmful. Each deviant work behavior should fall into one of four quadrants created by these two dimensions. Bennett and Robinson (2000) constructed a validated scale to assess their proposed typology of deviant behaviors which is used to assess the occurrence of interpersonal and organizational counterproductive behaviors in the present research.

In this study, the supervisor of each participant assessed both OCB and CWB. This was done in an attempt to reduce common source bias and socially desirable responses; methodological issues that have detracted from many past studies of OCB and CWB. Based on evidence from previous research, it is hypothesized that OCB and CWB will be negatively correlated. The next three sections of this research paper discuss the relationships that have been established among the variables composing the five-factor model, positive and negative affect, attributional style, OCB, and CWB.

The Five-Factor Model of Personality (FFM) and OCB

Within the last few decades, a five-factor framework (FFM) for the classification of personality has emerged. Prior to the identification of this framework the validity of personality as a predictor of job performance was quite low (Barrick & Mount, 1991).

However, with the classification of five relatively independent personality traits, researchers have been able to conduct systematic research leading to the accumulation of empirical support for the relationship between personality and performance. The FFM, also known as the Big Five, is comprised of the dimensions known as Conscientiousness, Emotional Stability, Extraversion, Agreeableness, and Openness to Experience (Goldberg, 1990). Conscientiousness is associated with dependability, the need for achievement, and good organizational skills. Individuals high on this trait are considered hardworking and persevering. Low Emotional Stability, also known as Neuroticism, is characteristic of individuals who are consistently anxious, depressed, angry, and insecure. Extraversion is found in individuals who are sociable, gregarious, talkative, and active. Those who score low on this scale are considered Introverted and tend to be reserved and more independent. The fourth dimension, Agreeableness, is associated with being courteous, flexible, compliant, and good-natured. Openness to Experience, the last factor, encompasses traits such as being imaginative, curious, and broad-minded. Barrick and Mount (1991) were the first to conduct a meta-analysis of the relations between FFM and job performance in the personnel selection literature. Since that time a number of researchers have expanded the focus to include both citizenship performance and counterproductive behavior criteria.

A meta-analysis by Organ and Ryan (1995) provided one of the first comprehensive reviews of the dispositional correlates of OCB. Two of the four personality traits that were examined were the Big Five factors of Conscientiousness and Agreeableness. These traits were considered with the separate OCB dimensions of Altruism and Conscientiousness. They also took into account the differences between self-reports and evaluations made by others (e.g., peers and supervisors). Their results showed that only Conscientiousness

correlated significantly with OCB. After correcting for criterion unreliability and range restriction, Conscientiousness correlated .22 with the altruism factor and .30 with OCB-Conscientiousness. These correlations decreased when self-reports were excluded from the analysis to correlations of .04 and .23 respectively. Such low correlations led Organ and Ryan to conclude that the relationship between personality and OCB was at best weak. Although this meta-analysis was considered comprehensive in 1995, since that time a number of studies have been published that reflect higher correlations between the Big Five and OCB.

Later, Neuman and Kickul (1998) re-examined the relationship between Agreeableness, Conscientiousness, and Extraversion and all five OCBs. In their analysis, however, they assessed how the working relationship between the employee and employer might influence the relationship between employee disposition and job performance. They noted how this relationship varies with regard to trust, mutuality, and shared values. In their terms, a "covenantal relationship" describes a two-way relationship between the employee and the organization which emphasizes trust, mutuality, and shared values. Their sample was composed of 284 employees of a wholesale/retail jewelry organization. Of the employees represented in the sample, 34% (N = 96) were male and 66% (N = 188) were female. The average tenure for males was 3.4 years and 2.7 years for females. Utilizing self-reports to measure the antecedents and mediators and supervisor reports to measure the criteria, they found significant correlations between Conscientiousness and Agreeableness and all five of the OCB factors with correlations ranging from .20 to .41. These relationships were partially mediated by the strength of the covenantal relationship. Conversely, Extraversion was negatively related to the citizenship behaviors of Altruism, Civic Virtue, and

Conscientiousness. This indicates that Extraversion may be a trait indicative of a friendly and outgoing individual, but not someone necessarily focused on the welfare of others. The findings in this study indicate a higher correlation between Conscientiousness and Agreeableness and OCB than was previously found by Organ and Ryan (1995). In addition, Neuman and Kickul provided support for the inclusion of all five OCB factors when examining the predictive power of the Big Five. As evidenced by the findings in this study, a useful line of research would be to identify mediators that exist in the relationship between personality and OCB.

A study by Hogan, Rybicki, Motowildo, and Borman (1998) examined the personality factor of Conscientiousness and its relationship with contextual performance when organizational reward systems are taken into account. More specifically, they anticipated that if the organization rewards contextual performance with approval and acceptance, then Conscientiousness should be a significant predictor. However, if status were the reward for contextual performance then Conscientiousness would not be a significant predictor but rather a personality variable known as Ambition would be.

The purpose of their first study was to examine the relationship between personality and contextual performance in jobs where employees had little opportunity for advancement. This study consisted of 214 applicants hired into entry-level handling, processing, and distribution jobs for a letter/package delivery service and 91 applicants hired into entry-level correctional officer jobs at a state correctional facility. Results of the first study, where approval and acceptance were the rewards, indicated that Conscientiousness was significantly related to contextual performance with correlations ranging from .17 to .19. These correlations are in line with those found by Organ and Ryan (1995).

In the second study, the relationship between personality and contextual performance was examined in jobs where there is a greater opportunity for advancement. Participants included 130 marketing analysts, 84 financial bankers, and 74 hospital administrators. Results indicated that when status was the reward, Ambition was a significant predictor of contextual performance instead of Conscientiousness with correlations ranging from .04 to .44. Together, these two studies demonstrate that organizational conditions can moderate the relationship between personality and OCB. Also, understanding an individual's motives behind OCB, whether it is for approval or status, may also be important in managing OCB in organizations. One important avenue of research is to understand how an employee's perceptions of the organization can influence citizenship performance and whether or not these perceptions are influenced by their disposition.

It is unclear if the personality variable of Ambition can be interpreted within the Big Five framework or if its' existence is an indication of the need to move beyond the existing framework. Perhaps its predictive ability coupled with the organizational context is indicative of the need for more information regarding how disposition translates into citizenship behavior. Another concern with this study is the way in which the personality inventory was administered. In the first study, the personality inventory was administered to successful job applicants prior to their work on the job. The second study was part of concurrent validation research, meaning that incumbents filled out the personality inventory while on the job. These varying sample characteristics may have influenced the results. Perhaps, the reason for the differences in the correlations found in the two studies was affected by the job tenure of the participants. For example, an individual who is applying for a new job might have felt a need to be seen as conscientious, dependable, and hardworking

rather than ambitious in order to get the job. Once people are hired and they might feel comfortable with their standing in the organization, and more ambitiously seek ways to improve their status.

The Five-Factor Model of Personality (FFM) and CWB

The FFM of personality has also been studied as a predictor of counterproductive work behaviors. Hough (1992) performed a meta-analysis of CWB that included an expanded form of the Big Five. Specifically, he separated Conscientiousness into the subfacets of Achievement and Dependability. There was no differentiation made between different types of CWB such as poor attendance or disciplinary action. The mean observed correlation between CWB and Dependability was -.24. Agreeableness, Emotional Stability, and Achievement reflected mean correlations with CWB ranging from -.08 to -.19. These results suggest that similar to its relationship with OCB, Conscientiousness is the strongest predictor of CWB. However, additional studies have been done since Hough's meta-analysis that focus on specific dimensions of CWB which provide additional information regarding Big Five predictors.

A more recent meta-analysis of the five-factor model and CWB by Salgado (2002) examined various forms of CWB separately. The criteria considered in this study were absenteeism, accident rate, deviant behavior (e.g., theft, substance abuse, property damage, organizational rule breaking, and other irresponsible behaviors.), and turnover. Salgado's findings indicated that Conscientiousness and Agreeableness were valid predictors of the deviant behavior criterion with validities of .26 and .20 respectively. Emotional Stability, Conscientiousness, and Agreeableness were found to be strong predictors of turnover with validities ranging from .22 to .35. Absenteeism and accidents were not predicted by any of

the Big Five factors. These results indicate that Conscientiousness may not be a valid predictor for all counterproductive behaviors as previously indicated by Hough's (1992) findings. One weakness of Salgado's analysis is the lack of detail regarding the turnover criteria. It is unclear if employee turnover was measured after a probationary period or after an extended period of time with the organization (Sackett & DeVore, 2001). Thus, it is difficult to determine if personality is a better predictor of turnover in new hires or experienced employees. If personality is a significant predictor of turnover in new hires, then many selection systems would benefit from its inclusion as a predictor variable. However, if personality better predicts turnover in experienced employees then perhaps there are problems that exist within the organization that contribute to the propensity of tenured employees to leave. A significant need exists in the literature for more knowledge regarding the contextual or mediating factors between disposition and CWB.

Overall, it is clear that the relationship between the Big Five personality dimensions and OCB and CWB is a complex one. A great deal of research has focused on the direct relationship between the Big Five and OCB and CWB. However, the most interesting results have been found in studies where a mediator or moderator has been included to try to explain the existence of a relationship. There is a need to look for potential mediating variables such as organizational context or the attributions that individuals make regarding the situation. The results of each study in this review consistently provide evidence of the predictive power of Conscientiousness. Of the remaining personality dimensions, Agreeableness is also often found to be related to both OCB and CWB. There is little empirical evidence, however, that Emotional Stability, Extraversion, and Openness to Experience predict either OCB or CWB. Accordingly, my second hypothesis is that, overall, Conscientiousness will be the strongest

predictor of both OCB and CWB. It will be positively related to OCB and negatively related to CWB. My third hypothesis is that Agreeableness will be positively related to OCB and negatively related to CWB.

Positive and Negative Affect

Two additional personality factors that are related to OCB and CWB are positive and negative affect. Positive affect is a higher order personality variable describing the extent to which a person feels enthusiastic, active, and alert (Watson, Clark, & Tellegen, 1988). Whereas, negative affect is a general dimension of subjective experiences of aversive mood states such as anger, hostility, guilt, fear, or anxiety. These variables are typically measured with mood scales and reflect an individual's propensity to experience these emotions regardless of the specific stimulus.

The meta-analysis by Organ and Ryan (1995), which was previously discussed in regard to the Big Five personality dimensions and OCB, also examined the predictive power of negative and positive affect for citizenship behaviors. They reported mean corrected correlations of .15 and .07 between positive affect and Altruism and Conscientiousness, respectively. Negative affect correlated -.06 with Altruism and -.12 with Conscientiousness. Due to the low magnitude of these relationships, Organ and Ryan conclude that affect should not be considered a strong predictor of OCB. However, it should be noted that Organ and Ryan placed studies that measured Extraversion and positive affectivity in the same group due to their belief that Extraversion is a component of positive affect. This choice may have underestimated the effect size that was reported for positive affect (Borman et al., 2001). Another limitation of this meta-analysis is the exclusion of the OCB dimensions of Civic Virtue, Courtesy, and Sportsmanship due to their lack of representation in empirical studies.

An empirical study by Aquino, Lewis, and Bradfield (1999) looked at the relationship between negative affectivity and both organizational and interpersonal counterproductive work behaviors. This distinction between two different types of CWB is in line with the aforementioned framework proposed by Robinson and Bennett (1995). In the regression analysis, negative affect was found to be a significant predictor of CWB accounting for 5% of the variance in organizational deviance and 10% of the variation in interpersonal deviance. The magnitude of the relationship between negative affect and interpersonal deviance ($r =$ .33) suggests that employees experiencing negative emotional states were more likely to exhibit direct forms of counterproductive behavior against other employees rather than the organization itself. Self-reports were used to assess both negative affect and deviant behavior. This design may have resulted in inaccurate reports of the deviant behavior due to social desirability response biases. Such biases can produce underestimates of deviant behavior and range restriction in measurement. Also, there were no other personality variables included in the study other than negative affect. Future studies should be carried out to determine the unique contribution of affect over and above other dispositional variables. Nevertheless, Aquino and colleagues provide strong support for the predictive validity of negative affect for CWB.

A recent study by Lee and Allen (2002) examined the role of affect in predicting both OCB and CWB. One unique contribution of this study to the field is its inclusion of proximal predictors such as discrete emotions as well as the distal predictors of positive and negative affect. Their findings indicated that positive affect significantly contributed to the prediction of OCB directed at individuals ($\Delta R^2 = .034$, p < .05) and OCB directed at the organization ($\Delta R^2 = .050$, p < .01) after controlling for age, organizational tenure, and

education. However, specific variances in positive discrete emotions such as attentiveness, joviality, and self-assurance, failed to increase prediction over and above positive affect. Negative affect did not significantly predict CWB, but the negative discrete emotions (Fear, Hostility, Sadness, and Guilt) did increase the predictability of CWB over and above negative affect ($\Delta R^2 = .075$, p < .05). This finding indicates that proximal predictors of disposition can explain additional variance in individual behavior. Discrete emotions occur in reaction to the work context and can provide information about an individual's perception of and attributions about the situation. This study utilized peer ratings to assess OCB and CWB. Due to the nature of counterproductive behaviors, it is unclear as to whether peers would have the opportunity to observe such acts. Also, the participants selected the peers, a choice which may bring halo bias into the ratings.

Based on the results of the studies reviewed, positive and negative affect are related to OCB and CWB. However, the strength of their relationships depends in part on the source of rating for the behavior. Self-rating methods tend to report stronger relationships than other-ratings, but common source bias and social desirability could be playing a role in this finding. Additionally, there is a lack of evidence as to how positive and negative affect influence behavior. It would be beneficial to identify mediators in this relationship that would account for the organizational context. In line with previous research, my fourth hypothesis for this study is that positive affect will be positively related to OCB. My fifth hypothesis is that negative affect will be positively related to CWB.

Attributional Style

Attributional style (AS) is a dispositional variable that was first introduced by Abramson, Seligman, and Teasdale (1978). This personality trait refers to an individual's

tendency to make similar attributions across situations. According to Anderson, Arnoult, and Jennings (1988) individual differences in attributional style contribute to motivational, performance, and affective reactions to various life events. In the reformulated learned helplessness model of depression, Abramson et al. (1978) proposed that individuals who attributed failure to internal, stable, and global causal factors were more prone to depression than people who made other types of attributions. In addition, these depression-prone individuals tended to attribute success to external, unstable, and specific factors. A great deal of research has been devoted to the study of AS and depression; however this construct has been applied in other areas as well.

Before discussing the organizational applications of attributional style it is important to discuss the different causal dimensions that have been identified in attribution theory. A primary dimension along which attributions are thought to vary is the internal/external dimension. Internal pertains to causes that occur "inside" a person, whereas external describes causes "outside" a person or in the environment. This dimension is called the locus of causality and is different from Rotter's (1966) term, locus of control, in that it is not in reference to how much control an individual has over the causal event, instead, it addresses an individual's belief regarding where the cause of an outcome originates. Stability is a second causal dimension of attribution theory. This dimension refers to the variability of the cause over time and whether or not it will remain stable over time. A third dimension is controllability. This dimension was not included by Abramson et al. (1978) in the reformulated theory of learned helplessness, but is considered important in understanding attributional styles according to other researchers (Kent & Martinko, 1995). Controllability is the extent to which a cause is under the control of an individual. Globality/stability is a

fourth causal dimension and refers to the generalizability of a cause across situations and over time. For example, if a student does poorly on a spelling test he/she can attribute this to one of two internal, stable causes; his/her lack of intelligence or lack of spelling ability. An attribution regarding intelligence is more global than an attribution regarding spelling ability and therefore is more likely to impact behavior across a variety of situations. The final causal dimension identified by researchers of attribution theory is intentionality (Weiner, 1985a). Intentionality refers to the presence or absence of a strategy in an event versus simply improper effort. Martinko and Zellars (1998) proposed that when an employee makes an external attribution about a negative work outcome and that outcome is also considered intentional then anger or aggression might result on the part of the employee.

Based on the causal dimensions described above, researchers have identified attributional styles that can influence organizational issues such as performance and counterproductive work behavior. Abramson et al. (1978) described two different explanatory styles, pessimistic and optimistic, in the reformulation of the learned helplessness model. When confronted with negative events, an individual with a pessimistic explanatory style will make internal, stable, and global attributions regarding the cause of the event. He/she may blame himself/herself for the event and believe that it will happen again. However, individuals with an optimistic explanatory style will make external, unstable, and specific attributions about the cause of the negative event. These individuals will not blame themselves and do not expect the event to occur again.

In a study of life insurance agents, Seligman and Schulman (1986) examined how explanatory style would affect productivity and quitting. Their findings showed that agents with an optimistic explanatory style sold between 37% and 88% more insurance than those

with a pessimistic explanatory style. In addition, agents with an optimistic explanatory style avoided turnover at twice the rate of agents with a pessimistic explanatory style. This study provides evidence of a link between attributional style and performance, as measured by productivity. The results regarding turnover are also significant in that they reflect a connection between explanatory style and one form of counterproductive work behavior.

Martinko and Zellars (1998) proposed another type of attributional pattern called the hostile attributional style. A hostile attributional style is characteristic of individuals who make external, stable, controllable, and intentional attributions regarding negative events at work. This style differs from a pessimistic explanatory style in that the cause of the negative event is seen as external to the individual instead of internal. In addition, the individual believes the event took place because someone intentionally acted against them. These individuals perceive few mitigating circumstances for the negative events that occur and are prone to organizational aggression and violence due to the fact that they blame another person or the organization for the negative outcome. Both hostile attributional and pessimistic explanatory styles are included as individual differences predictors in the Causal Reasoning Model of Counterproductive Behavior (Martinko et al., 2002). The shared causal dimension between both attributional styles is stability. Regardless of the source of the negative outcome, internal or external, there is a belief that the cause is stable and will likely occur again. This dimension leads to anger and frustration in an individual with a hostile attributional style and guilt and shame in an individual with a pessimistic attributional style. In the model proposed by Martinko et al. (2002) both situational and individual differences variables influence an individual's method of cognitive processing. Cognitive processing, which includes making attributions about events, leads to the decision made by the individual

of whether or not to perform counterproductive behaviors (see Figure 1). Martinko et al. (2002) propose that an individual's attributions about workplace events act as mediators between dispositional variables and CWB. Attributional style is related to the actual attributions that an individual will make across similar situations, thus it is an important variable to measure in order to validate the proposed model.

Currently, there has been only one empirical study that has included hostile attributional style as a predictor of CWB. Douglas and Martinko (2001) investigated the relationship between a number of individual differences variables, including attributional style, and the incidence of workplace aggression in a sample of employees from a transportation company and a public school system. Employees provided a self-report of both the predictor and criteria variables. The results indicated that a hostile attributional style significantly contributed to the prediction of self-reported incidences of aggression at work (β = .152, $p < .05$). Negative affect was also included in this study, but did not show a significant relationship with workplace aggression over and above the other predictor variables. In addition, negative affect was significantly correlated with hostile attributional style ($r = .18$, $p < .05$). Since attributional style is manifested in reaction to the organizational situation, then it could be considered a more proximal predictor of workplace aggression than negative affect. This could account for the insignificant effect of negative affect in this study. In addition, this finding provides support for viewing attributional style as a mediator between negative affect and workplace aggression. One limitation of this study was its use of a common source to report both attributional style and the incidences of aggression at work. Future research should use separate rating sources for the predictors and criteria. Additional studies are needed to clarify the nature of the relationship between

attributional style and CWB. Therefore my sixth hypothesis for this study is that pessimistic attributional style and hostile attributional style will be positively related to the occurrence of counterproductive work behavior. In addition, attributional style will act as a mediator between personality and counterproductive work behavior. Figure 2 displays the hypothesized relationships between personality, attributional style, and counterproductive work behavior.

At this point in time there have been no studies that have looked at the relationship between attributional style and organizational citizenship behavior. As previously mentioned, Seligman and Schulman (1986) did find a positive relationship between optimistic explanatory styles and productivity. Individuals with an optimistic explanatory style tend to persist in the face of negative events and explain the causes of these events as external and unstable (Abramson et al., 1978). Optimistic attributional style has also been shown to be significantly correlated with job satisfaction. This link is important because satisfaction has been identified as a predictor of citizenship behavior (Organ & Ryan, 1995). These findings make the link between an optimistic attributional style and OCB plausible. My seventh and final hypothesis is that an optimistic attributional style will be positively related to organizational citizenship behavior and that it will act as a mediator between personality and organizational citizenship behavior (see Figure 3).

In summary, past research regarding the relationship between personality and CWB and OCB has prompted seven key hypotheses for the present study.

H1: OCB and CWB will be negatively related.

H2: Conscientiousness will be the strongest predictor of both OCB and CWB. It will be positively related to OCB and negatively related to CWB.

H3: Agreeableness will predict both OCB and CWB. It will be positively related to OCB and negatively related to CWB.

H4: Positive affect will be positively related to and predict OCB.

H5: Negative affect will be positively related to and predict CWB.

H6: Hostile attributional style and pessimistic attributional style will be positively related to and predict CWB. In addition, attributional style will act as a mediator between personality and CWB.

H7: Optimistic attributional style will be positively related to OCB and will act as a mediator between personality and OCB.

Section II. Method

Participants

Participants included 139 employees of a large national corporation, which specializes in senior living care. A total of 330 surveys were distributed to the employees, resulting in a return rate of 42%. Of the participants who provided demographic data, 82% were female. The majority of the participants had high school diplomas or the equivalent (88%) and 12% had obtained a Bachelor's degree or higher. English was the primary language for the majority of the participants (93%) followed by Spanish (4%). The age of the participants ranged from 18 to 75 years with a mean age of 39.3 years. Job tenure ranged from 2 months to 12.4 years with a mean of 2.38 years, a median of 1.58 years, and a mode of 2 months.

Measures

Personality. The Big Five personality dimensions were assessed using Goldberg's (1999) public domain measure from the International Personality Item Pool (IPIP, 2001) (see

Appendix A). This measure consists of 50 items (10 per scale) and measures Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. Participants rated items on a 5-point Likert scale, from 1 (very inaccurate) to 5 (very accurate). Items were averaged to produce a scale score. Higher scores indicated greater quantities of the trait. Previously reported internal consistency coefficient alphas for each of the 10-item subscales ranged from .79 for Conscientiousness to .87 for Extraversion (Goldberg, 1999). High convergent validity has also been demonstrated for this measure with a corrected correlation of r = .94 with the NEO-PI-R (Costa & McCrae, 1992). In the present study, the scales measuring Conscientiousness (α = .67) and Agreeableness (α = .67) exhibited low internal consistency. According to Nunnally (1978), reliability coefficients should be equal to or greater than .70 to be considered acceptable for purposes of research.

Affect. Positive and negative affect were measured using the Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). This measure consists of 20 items, 10 of which assess positive affect and 10 of which assess negative affect (see Appendix B). Participants were presented with a list of mood-expressive adjectives and asked to indicate how often they have experienced each mood state within the last six months on a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely). Items were averaged to produce scale scores for positive affect (α = .87) and negative affect (α = .84). The PANAS has demonstrated acceptable convergent validity with measures of related constructs. For example, the NA scale of the PANAs shows a correlation of .74 with the Hopkins Symptom Checklist (HSCL), a measure of general distress and dysfunction. In addition, NA is correlated .58 with the Beck Depression Inventory (BDI), a self-report measure of depressive symptomatology.

Attributional Style. The Organizational Attributional Style Questionnaire (OASQ) (Kent & Martinko, 1995) was used to measure attributional style (see Appendix C). This scale measures the extent to which an individual attributes negative workplace events to external, stable, intentional, controllable, and global causes. Participants were provided with a work scenario and asked to rate the event on each of the five causal dimensions with a 5 - point Likert scale. Each participant was presented with 7 negative work scenarios. The following is an example of a negative work scenario, "You recently received a below average performance evaluation from your supervisor." They are then asked, "To what extent the outcome was caused by them [1] or by other people or circumstances [7]?" Consistent with the scoring approach used by Kent and Martinko (1995), a hostile attributional style score was calculated for each scenario by taking the average of the responses on each causal dimension. A higher average score on the dimensions of externality, stability, intentionality, and controllability on the negative work scenarios indicated a more hostile attributional style. In order to calculate a score for pessimistic/optimistic attributional style the dimension of externality was reverse-coded so that higher scores indicated high internality. For each scenario, the items measuring the causal dimensions of internality, stability, and globality were averaged to obtain a pessimistic/optimistic attributional style score. This scoring method mirrors the approach used by Kent and Martinko (1995). A higher average score indicated a pessimistic attributional style, whereas a lower average score indicated an optimistic attributional style. In previous studies using the OASQ, internal consistency reliabilities ranged from .70 to .89 (Kent & Martinko, 1995; Douglas & Martinko, 2001). In the present study, both hostile attributional style ($\alpha = .95$) and pessimistic/optimistic attributional style ($\alpha = .88$) exhibited high internal consistency. Convergent validity has also

been shown for this measure in both the scale and composite scores. The OASQ control scale is significantly correlated at r = .38 with the locus of control scale of the Attributional Style Questionnaire (ASQ). Also, the OASQ composite score is positively related to the ASQ composite (r = .29).

Organizational Citizenship Behavior. Supervisors provided an evaluation of each participant's performance of OCB. Citizenship behavior was assessed using the 24-item measure developed by Podsakoff et al. (1990) (see Appendix D). Responses were measured on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The citizenship behaviors measured by this scale include Altruism, Conscientiousness, Sportsmanship, Courtesy, and Civic Virtue. All of the scales have demonstrated adequate internal consistency reliabilities that exceed r = .70 (Podsakoff et al., 1990). In addition, a confirmatory factor analysis of this measure indicated that all five citizenship behaviors loaded on their hypothesized factors and corresponded with Organ's (1988) framework (Podsakoff et al., 1990). For this study each dimension will be considered simply as an indictor for the overall construct of OCB. Based on the meta-analysis by LePine et al. (2002) there are no meaningful differences in the relationships with predictors across the five OCB dimensions. Thus, OCB is considered a single latent construct. The internal consistency reliability for the latent construct was high (α = .90).

Counterproductive Work Behavior. CWB was measured with an interpersonal and organizational deviance scale developed by Bennett and Robinson (2000). Each participant's supervisor indicated how often they observed a participant engage in counterproductive behavior within the previous two months of employment on a 5 – point Likert scale, ranging from 1 (never) to 5 (daily). The scale consisted of 19 counterproductive work behaviors.

Seven of the items reflect interpersonal deviance and 12 of the items represent organizational deviance. In the present study, all of the items were summed to produce an overall score of counterproductive work behavior. The internal consistency of the scale was acceptable ($\alpha =$ .89). Evidence for the convergent validity of this instrument has been indicated by its significant and positive correlations with Hollinger and Clark's (1982) scales of property and production deviance, $r = .59$ and $r = .70$, respectively. Divergent validity for this measure has been demonstrated by its negative correlation with Podsakoff et al.'s (1990) measure of organizational citizenship behavior ($r = -.35$).

Procedure

Two different methods were employed to collect data. In Method 1, the measures of the Conscientiousness, Agreeableness, affect, and attributional style were administered to employees at the time they were hired into the organization. Each questionnaire was returned to the researcher in a pre-addressed, paid envelope sealed by the applicant once it had been completed. After the applicants worked on the job for two months, their immediate supervisor completed a questionnaire that assessed the employee's performance of OCB and CWB. This questionnaire was returned to the researcher in a pre-addressed, postage-paid envelope. The supervisor had no knowledge of the new employee's score on the personality questionnaires. Both the applicant questionnaires and supervisor questionnaires were coded with matching numbers to insure that the appropriate surveys could be linked together.

Due to a low survey response rate (10%), a second procedure was initiated to collect data. In Method 2, the personality questionnaires were distributed to the current employees of three different facilities at a required in-service training session. The employees were given time during the training session to complete the questionnaires. Following the

procedure in Method 1, the employee questionnaires were sealed in envelopes and returned to the researcher. The supervisor questionnaires were completed during the week following the in-service training session and returned in sealed envelopes to the researcher. As an incentive to complete the surveys, the employees' names were entered into a drawing for a cash price of $50. As in Method 1, the supervisor had no knowledge of the new employee's score on the personality questionnaires. Both the applicant questionnaires and supervisor questionnaires were coded with matching numbers to insure that the appropriate surveys were linked together.

Data Analyses

Structural equation modeling was used to test the conceptual models and the proposed hypotheses. All analyses were run by analyzing the correlation matrix and standard deviations of the study variables using the CALIS procedure in SAS (SAS Institute Inc., 1989). According to Bentler (1995), a sample-size-to-parameter ratio of 5 or more is necessary to obtain reliable estimates in maximum likelihood estimation. Due to the sample size and concerns regarding the power of the analyses, the model proposed in Figure 2, with both hostile attributional style and pessimistic attributional style as mediators, was simplified to include only hostile attributional style as a mediator (Model 1). As a result of this change, it was necessary to develop a second conceptual model (Model 2) predicting CWB that included only pessimistic attributional style as a mediator. These changes allowed for more parsimonious models with fewer paths to estimate. The third conceptual model (Model 3) mirrored the relationships proposed in Figure 3, with optimistic attributional style as a mediator and OCB as the outcome.

A two-step procedure was followed in the analysis of each model, as recommended by Anderson and Gerbing (1988). In step one; confirmatory factor analysis was used to develop a measurement model that demonstrated an acceptable fit to the data. Next, the measurement model was modified in order to represent the proposed theoretical causal model. The causal model was then tested and revised until a theoretically meaningful and statistically acceptable model was found (Hatcher, 1994).

Section III. Results

Given that the data were collected using two different methods, a number of analyses were performed to compare the two different samples acquired with each method to determine if they could be combined. Based on a t-test, the demographic variable of tenure was significantly different in the two groups (t = 10.19, $p < .001$). Sample 1, which was collected using the first method, had a mean tenure of 2 months and a standard deviation of 0, whereas Sample 2, which was collected using the second method, had a mean tenure of 3.08 years and a standard deviation of 2.95 years. This finding was not unexpected since the first method included only new employees. The mean score for hostile attributional style was significantly higher in Sample 1 ($M = 2.42$, $SD = .61$) than in Sample 2 ($M = 1.95$, $SD = .99$) based on a t-test comparison of the means (t = 3.00, $p < .01$). Whereas, Sample 2 exhibited a significantly higher mean score for OCB ($M = 5.53$, $SD = 1.23$) compared to Sample 1 ($M = 4.97$, $SD = .92$) (t = 2.43, $p < .05$). No other mean differences across the study variables were significant. Since the majority of the study variables were comparable across the two samples, the data was combined into one sample for further analyses.

Descriptive statistics and intercorrelations among the variables in the combined sample are presented in Table 1. OCB and CWB were significantly negatively correlated,

which supported H1. In partial support of H2, Conscientiousness was significantly negatively related to CWB, but was not related to OCB. Agreeableness was not significantly related to either OCB or CWB. The same results were found for positive affect and negative affect, with neither exhibiting a significant relationship with OCB or CWB. Thus, H3 through H5 were not supported. Both hostile attributional style and pessimistic/optimistic attributional style were significantly related to OCB and CWB, a finding that partially supports H6 and H7. However, hostile attributional style was not significantly correlated with any of the personality variables. Pessimistic/optimistic attributional style did exhibit significant correlations with the personality variables.

All of the study variables were examined to determine if the sample data was drawn from a normally distributed population. According to the Shapiro-Wilks W test, the variables in the study failed to meet the assumption of normality. In an attempt to normalize the distribution of the data, each variable was transformed to its natural log. However, the transformation did not change the results of the Shapiro-Wilks W test; thus, the variables were analyzed in their original form.

Confirmatory Factor Analysis

Prior to assessing the fit of each measurement model, the latent factors were separately subjected to confirmatory factor analysis to identify the highest loading manifest variables and to determine their scalability (Hatcher, 1994). The highest loading variables were selected as the manifest variables for each latent construct. The number of manifest variables retained for each latent construct ranged from three to four. A minimum of four manifest variables are needed to obtain unique parameter estimates for a single-factor measurement model in order to determine scalability. The factors of hostile attributional

style, CWB, and OCB were represented by four manifest variables each and were evaluated in regard to their scalability. Theoretically, the chi-square statistic may be used to test the null hypothesis that the model fits the data. However, in practice this statistic is sensitive to sample size and deviations from multivariate normality can lead to the rejection of a well-fitting model. Since this is the case, it is also prudent to evaluate additional fit indices that are provided such as the goodness-of-fit index (GFI), the non-normed fit index (NNFI), the comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA).

Hostile attributional style factor had a non-significant chi-square, X^2 (2, N = 139) = 1.47. Similarly, the OCB factor chi-square was not significant, X^2 (2, N = 139) = 1.12. The CWB factor had a non-significant chi-square as well, X^2 (2, N = 139) = 1.69. These three models were judged to be a good fit to the data. The remaining latent factors including Conscientiousness, Agreeableness, positive affect, negative affect, and pessimistic/optimistic attributional style did not have the minimum number of manifest variables needed to determine their scalability using confirmatory factor analysis.

Structural Equation Model

In Table 2 the fit indices of all the models tested are shown. The chi-square for Model 1 and Model 2 were significant. However, the chi-square for Model 3 was not significant. For all of the models, the GFI, NNFI, and CFI were equal to or greater than the required 0.90 cutoff, indicating a good fit. The RMSEA of all three models was acceptable as well, falling below 0.06 for a moderately good fit. Modification indices were consulted to determine the presence of correlated error or cross-loading manifest variables; however none of the suggested modifications were theoretically interpretable. Since the fit indices

suggested that the models already fit the data adequately, it appeared unwise to risk the theoretical soundness of the models by making modifications to further improve model fit.

The path estimates for Model 1 can be seen in Figure 4. An examination of these estimates revealed that hostile attributional style did not act as a mediator between the personality variables and CWB. All paths were non-significant. Thus, H6 was not fully supported. Based on this finding, an alternative model was tested that did not include hostile attributional style as a mediator in an attempt to improve model fit and increase the magnitude of the path estimates. In this model, hostile attributional style was treated only as a predictor, not as a mediator. If the alternative model improved overall model fit then it could provide additional evidence that attributional style should be considered as a predictor of CWB and not as a mediator between personality and CWB. The alternative model did improve the fit of the model by demonstrating a significant change in the model chi-square statistic, ΔX^2 (59, N = 139) = 77, $p < .05$. However, the paths did not reach a level of significance.

Although Model 2 was determined to have adequate fit, the path estimates were non-significant (see Figure 5). As in Model 1, H6 was not fully supported in that pessimistic attributional style did not act as a mediator between the personality variables and CWB. Similar to Model 1, an alternative model with pessimistic attributional style included as a predictor of CWB and not as a mediator of personality and CWB was tested. The alternative model did not improve the model fit or increase the magnitude of the paths.

In Model 3, the path estimates were also non-significant (see Figure 6). Thus, H7 was not fully supported. Optimistic attributional style did not act as a mediator between the personality variables and OCB. An alternative model with optimistic attributional style

acting as a predictor of OCB instead of as a mediator between personality and OCB was tested and did not improve model fit or cause the path estimates to reach a level of significance.

Post Hoc Cluster Analysis

Additional analyses were conducted to evaluate the appropriateness of the scoring method used for the OASQ. According to Martinko & Zellars (1998) an individual has a hostile attributional style if they score high on the causal dimensions of externality, stability, controllability, and intentionality. The OASQ provides a score for hostile attributional style by taking the mean of the four causal dimensions. Since the attributional style score is an average, it is possible for an individual to score low on one or more of the dimensions while still maintaining a high mean score. Such a score would not accurately reflect hostile attributional style. The scoring for pessimistic/optimistic attributional style also suffers from this problem. An individual with a pessimistic attributional style should score low on the dimension of externality and high on the dimensions of stability and globality, however the score used to identify the presence of this style is an average of the three dimensions.

I proposed that a more appropriate scoring method for the OASQ would be to identify the desired patterns of scores on the dimensions instead of a composite mean score. Cluster analysis is a technique that identifies subgroups of individuals that are homogenous in their pattern of scores. By employing cluster analysis to identify subgroups of individuals with different attributional patterns, the variable of attributional style was no longer considered a mediator between personality and CWB and OCB. Instead, hostile attributional style and pessimistic/optimistic attributional style were treated as nominal variables that influence CWB and OCB.

It was anticipated that individuals with high scores on externality, stability, controllability, and intentionality would have a hostile attributional style and display the highest CWB scores. Conversely, individuals with low scores on the four causal dimensions should have the lowest CWB scores. In regard to pessimistic/optimistic attributional style, individuals with low scores on externality and high scores on stability and globality should have the highest scores on CWB. Individuals with high scores on externality and low scores on stability and globality should have the highest scores on OCB. In the present study, a dimension score was considered high if it fell above 2.5, the midpoint of the scale. If the dimension score fell below 2.5 it was considered low. Cluster analyses were conducted using the SLEIPNER computer program (Bergman & El-Khouri, 2002).

In any classification taxonomy it is likely that there will be some cases that do not fit into the categorization scheme (Aldenferer & Blashfield, 1984). Consequently, it has been recommended that these "residual cases" be removed prior to the cluster analysis (Bergman & El-Khouri, 2002; Borgen & Barnett, 1987). The criterion for the removal of a residual case in the present study was that it must not be similar to any other case by less than an average squared Euclidean distance of .5, using standardized scores. No cases were removed from either the hostile attributional style data set or the pessimistic/optimistic attributional style data set.

The cases in each data set were submitted to hierarchical agglomerative cluster analysis using Ward's (1963) minimum variance method, standardized scores, and squared Euclidean distance as the similarity index. Ward's method provides output with the increment error sums of squares (ESS) at each step in the clustering process, which can be used to identify the appropriate number of clusters to retain. The ESS increment graph

allows for visual identification of a "break" in the plotted values. Such a break reveals a disproportionate increase in ESS due to the fusion of two clusters, indicating that the clusters were dissimilar to the fusions that came before (Craig & Smith, 2000). The cluster solution that existed prior to the break is selected as the best representation of the number of patterns in the data. According to the ESS increment graphs in this study, hostile attributional style had a 6-cluster solution and pessimistic/optimistic attributional style had a 5-cluster solution (see Figure 7 and Figure 8, respectively).

The cluster solution provided by Ward's method served as the basis for a second "iterative partitioning" or k-means analysis. This analysis re-evaluates each case's cluster assignment and relocates cases to different clusters if the total error sum of squares can be reduced by doing so (Craig & Smith, 2000). For the hostile attributional style data, the procedure required five iterations to stabilize, and resulted in the reassignment of 17 cases to other clusters, increasing the ESS explained by the cluster solution from 86.08 to 86.25, and decreasing the average cluster homogeneity coefficient from .4414 to .4390. The procedure for the pessimistic/optimistic attributional style data required three iterations to stabilize, resulting in 27 cases being reassigned to other clusters. This increased the ESS explained from 84.82 to 85.05, and decreased the average cluster homogeneity coefficient from .4816 to .4754. A cluster's homogeneity coefficient is the average similarity index for all possible pairwise comparisons in the cluster. Lower numbers indicate more homogenous clusters.

Descriptive statistics for the final cluster solution of hostile attributional style are presented in Table 3. The six clusters are graphically represented in Figure 9. Of the six clusters, Cluster 5 and Cluster 6 were considered to be representative of hostile attributional style. For these two clusters, all four causal dimensions had a mean above 2.5. Clusters 1

and 3 were representative of a non-hostile attributional style with the means of all four causal dimensions falling below 2.5. For Cluster 2, only two of the causal dimension means were above 2.5 (external and stable), whereas Cluster 4 had three causal dimensions with a mean above 2.5 (external, control, and intention). The descriptive statistics for the final cluster solutions of pessimistic/optimistic attributional style are displayed in Table 4. Of the five clusters, none were representative of pessimistic or optimistic attributional style. Based on these results no further analyses were conducted regarding pessimistic/optimistic attributional style.

Analysis of variance (ANOVA) was used to test whether members of the hostile attributional style clusters differed significantly from the remaining clusters on CWB. This analysis revealed a significant effect for cluster type ($F = 3.25$, $p < .01$). Tukey's studentized range (HSD) test showed that members of Cluster 5 ($N = 32$, 20%, $M = 1.37$) scored significantly higher than members of Cluster 1 ($N = 50$, 36%, $M = 1.08$). In addition, members of Cluster 2 ($N = 18$, 13%, $M = 1.42$) scored significantly higher than members of Cluster 1 ($N = 50$, 36%, $M = 1.08$). This result is surprising since only two of the four casual dimensions in Cluster 2 were above 2.5. Cluster 2 was not representative of hostile attributional style. Although Cluster 6 displayed the highest mean score on CWB compared to the other clusters, it was not significantly different from the other cluster scores based on Tukey's HSD test. This finding can be attributed to the small number of cases ($N = 5$) that were assigned to Cluster 6. All of the cluster means for CWB are displayed in Figure 10.

It was possible that the demographic characteristic of tenure could explain the observed differences in CWB among the clusters instead of attributional style. The previous comparisons made between the two methods used to collect the data revealed that Sample 1

had a higher HAS mean score than the Sample 2. In addition, Sample 1 had lower tenure than Sample 2. Consequently, the clusters were examined to determine if Cluster 2 and Cluster 5 were disproportionately composed of participants from Sample 1. Less than 45% of the individuals within Cluster 2 were from Sample 1 and only 31% of the individuals in Cluster 5 were from Sample 1. These findings indicate that the differences between the clusters on CWB were not simply a function of tenure, but were a result of hostile attributional style. The implication of the results of this exploratory analysis will be addressed in the discussion section of this paper.

Section IV. Discussion

The goal of this study was to test the fit of a number of models that postulate that attributional style acts as a mediator between personality traits and the job performance constructs of counterproductive work behavior and organizational citizenship behavior. Martinko et al. (2002) have argued that attributional style can be linked to the causal reasoning process of individuals; which plays a significant role in the expression of counterproductive behaviors. In addition, past research has provided evidence for a possible link between attributional style and organizational citizenship behavior (Seligman & Schulman, 1986). In the present research, path analysis with latent variables was used test the proposed relationships and to determine the validity of attributional style as a mediator.

The results of the structural equation modeling analyses provided limited support for the proposed models. All three models demonstrated adequate fit to the data. However, none of the path estimates were significant. One reason for this unusual finding was the low observed correlations between the study variables. Contributing factors to the fit of a model are the patterns found within the covariance matrix that is used to test the model. Low

correlations among the variables make it more likely that the model will fit. However, these low correlations also make it more difficult to obtain significant path estimates. Thus, higher correlations may have provided significant path estimates between the variables, but could have ultimately called the model into question. Ideally, a supported model should have both adequate fit and significant path estimates.

An examination of the bivariate correlations among the study variables revealed that only portions of the constructs were significantly related. The largest correlation ($r = - .69$) was between CWB and OCB, which supported hypothesis one. Conscientiousness was the only personality variable significantly related to CWB and none of the personality variables were significantly related to OCB. The expected relationships between personality and CWB and OCB were not present in the sample data. One possible reason for the low observed correlations is the lack of normality in the data. An attempt to normalize the distribution of the data was unsuccessful. The violation of the assumption of normality can increase the probability of a Type II error, thus, resulting in an underestimation of the relationship between variables. Another potential reason for the weak relationships observed between the variables was the low reliability of the scales measuring Conscientiousness and Agreeableness. With coefficient alphas below 0.70, it is likely that measurement error attenuated the bivariate correlations.

Visual examination of the data revealed a possible explanation for the non-normality of the variables of hostile attributional style and pessimistic/optimistic attributional style. Of the 139 participants, 34 participants responded with a "1" to all of items on the OASQ. It is possible that these responses represented a non-response to the items due to fatigue or a misinterpretation of the items. A response of "1" on the causal dimensions indicates an

extreme response, whereas a "3" indicates a median response. Thus, the distribution of scores pertaining to attributional style could be skewed due to the irregular response pattern provided by a portion of the participants.

The correlations did reveal that hostile attributional style and pessimistic attributional style were positively related to CWB. This gives evidence of the link between attributional style and CWB, but not of its role as a mediator. Attributional style was included as a mediator in the proposed models because it is closely linked to the actual attributions that an individual makes in situations. Perhaps, the results of this study provide evidence that attributional style alone does not reflect the full causal reasoning process and should not be considered as a proxy for the actual attributions that an individual makes in response to a situation. It is possible that the situation plays a larger part in determining whether or not an individual performs OCB and CWB.

The current study examined only a portion of the causal reasoning model proposed by Martinko et al. (2002), consequently omitting direct measures of situational variables.   By neglecting the situational variables, important predictors of CWB may have been excluded. An individual's perception of a situation is influenced by both their personality and the situation itself. If an individual does not perceive the outcome of a situation to be inequitable or frustrating then attributions will not come into play and CWB may not occur (Martinko et al., 2002). Thus, a measure of perceived justice in the workplace should also be examined as a mediator between personality and CWB. Previous research has indicated that organizational justice perceptions are predictive of counterproductive behavior (Aquino et al., 1999). Although the attributional style measure used in this study included workplace scenarios, the scenarios may not have been perceived as inequitable or unjust to the

participants. Previous research has indicated that in order for an organizational condition to elicit CWB or OCB it must have emotional meaning for people (Spector & Fox, 2002). The situations presented in the OASQ may not have met this requirement. A measure of perceived justice or equity in regard to the situation coupled with attributional style could provide a more complete description of the causal reasoning process.

A strength of this study was the inclusion of different rating sources for the predictor and criterion variables. By using self-ratings of personality and supervisory ratings of CWB and OCB, common source bias was eliminated. However, the lack of variance observed in the CWB measure could indicate that supervisors may not see all of the deviant behaviors that occur in the workplace. An improvement upon the current method would be to obtain ratings from multiple sources (e.g., co-workers) that are aware of the CWB and to aggregate the ratings across individuals as suggested by Lee and Allen (2002). Alternatively, Miles et al. (2002) have suggested focusing research on known groups of people, jobs, or companies that historically feature high levels of OCB and CWB in order to obtain greater effect sizes. However, this method may also reflect organizational influences on behavior such as norms for deviant behavior or weak situations that allow individuals more freedom to act out.

Limitations and Future Research

One limitation of the current study lies in the method employed to collect the data. The fact that two procedures were needed to collect a sufficient amount of data for analysis raises concern. The initial method, which included only new hires and a two-month time delay in supervisory ratings, utilized a longitudinal correlational design. The second method of survey distribution to the entire staff of a facility employed a cross-sectional correlational design. In addition, the second method included the use of a monetary incentive to solicit

participants. Both the design differences and the presence of an incentive could have resulted in distinct subsets within the sample based on motivation and time on the job. Statistical comparisons of the characteristics of both groups did reveal mean differences on the variables of hostile attributional style and OCB. However, the majority of the variables were comparable across the two methods so the samples were combined.

A second limitation of the study is the questionable responses provided by respondents on the Organizational Attributional Style Questionnaire (OASQ). As was previously mentioned, 34 of the participants answered "1" to all items on the questionnaire. It is unclear if these participants read and responded to these items in a purposeful manner or if the uniform responses indicated fatigue or lack of interest. Normally it would be advisable to remove these respondents from the sample; however, in the present study this would have resulted in a significant decrease in the statistical power of the analyses. These respondents were compared to the total sample on the remaining study variables and no significant differences were found. As such, the participants remained in the sample, but do call into question the validity of the results. Future research should take a closer look at the OASQ to assess whether or not it is comprehensible to an individual with a high school level education and if the length of the instrument is a hindrance to its completion.

The third limitation of this study deals with the scoring procedure used for the OASQ. As previously mentioned, there is concern regarding how well an average composite score can represent attributional style. This traditional method for determining hostile and pessimistic/optimistic attributional style neglects the important role that each causal dimension plays in the overall constructs. By using composite scores it is possible for an individual to score low on one or more of the causal dimensions and still be identified as

having a hostile attributional style. The misrepresentation of the attributional style construct may have contributed to the weak relationships observed between attributional style and CWB and OCB in the structural equation models. As an alternative scoring method, cluster analysis was performed to determine the presence of specific patterns of causal dimension scores.

Post hoc analyses revealed that a hostile attributional style pattern did exist within the sample data. The subgroups of individuals identified as having a hostile attributional style, Cluster 5 and Cluster 6, had high mean scores on each of the four causal dimensions. Furthermore, Cluster 5 had a significantly higher score on CWB than Cluster 1, which was composed of individuals scoring low on hostile attributional style. These results indicated that those inclined to make hostile attributions are involved with more CWB. However Cluster 2, which was not representative of hostile attributional style, also had a significantly higher score on CWB than Cluster 1. This finding could mean that certain causal dimensions, such as externality and stability, have stronger effects on CWB than other dimensions. In the future, researchers should examine the relative importance of each causal dimension on CWB.

The cluster analysis for pessimistic/optimistic attributional styles did not provide support for existence of specific patterns regarding these constructs.   Future research involving attributional style should include efforts to identify patterns based on causal dimension scores. This method of scoring is a more accurate reflection of the theory underlying the construct of attributional style than is the traditional method of taking the overall mean of the causal dimensions.

Conclusion

Despite its limitations, the present study contributes to current knowledge by exploring the role of attributional style as a mediator between personality and counterproductive and citizenship behavior. The lack of evidence for attributional style as a mediator should prompt researchers to look for alternate ways to conceptualize the causal reasoning process proposed by Martinko et al. (2002). One suggestion would be to include a measure of perceived organizational justice in addition to the assessment of attributions. This approach would capture more information regarding an individual's perceptions of the situation, an important component of the causal reasoning process.

A variety of individual differences variables should be included in future applications of the proposed models in order to test all possible predictors of CWB and OCB. Potential variables to include are emotional stability, integrity, locus of control, and core self-evaluations. In addition, the personality variables that have long been accepted as predictors of CWB and OCB, such as Conscientiousness, Agreeableness, and affect should continue to be examined in order to determine if previous findings are generalizable to all work settings.

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Table 1

Means, Standard Deviations, and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
(1) Conscientiousness	3.92	0.60	(0.67)							
(2) Agreeableness	3.95	0.61	0.51***	(0.67)						
(3) Positive affect	3.80	0.77	0.46***	0.53***	(0.87)					
(4) Negative affect	2.13	0.74	-0.28***	-0.22**	-0.25**	(0.84)				
(5) Hostile attributional style	2.09	0.95	-0.04	-0.03	-0.02	0.13	(0.95)			
(6) Pessimistic/optimistic attributional style	2.55	0.46	-0.27***	-0.33***	-0.22**	0.22**	0.58***	(0.88)		
(7) Counterproductive work behavior	1.25	0.44	-0.19*	-0.14	0.05	-0.11	0.28***	0.25**	(0.90)	
(8) Organizational citizenship behavior	5.39	1.18	0.11	0.10	-0.12	0.09	-0.48***	-0.24***	-0.69***	(0.89)

Note. Cronbach alpha reliabilities are shown along the diagonal. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2

Summary Fit Statistics for All Models

Model	df	χ^2	GFI	NNFI	CFI	RMSEA
1	109	148.84*	0.90	0.96	0.97	0.05
2	94	128.57*	0.90	0.95	0.96	0.05
3	94	98.40	0.92	0.99	0.99	0.02

Note. $N = 139$. GFI = goodness-of-fit index; NNFI = nonnormed fit index; CFI = comparative fit index; RMSEA = the root-mean-square-error of approximation.

* $p < .01$

Table 3

Descriptive Statistics for Cluster Analysis of Hostile Attributional Style

	External M (SD)	Stable M (SD)	Controllable M (SD)	Intentional M (SD)	CWB M (SD)
Full Sample (N = 139)	2.31 (1.10)	1.98 (.94)	2.08 (1.02)	1.98 (1.03)	1.25 (.44)
Cluster 1 (N = 50, 36%)	1.15 (.30)	1.11 (.19)	1.07 (.18)	1.06 (.16)	1.08 (.19)
Cluster 2 (N = 18, 13%)	2.54 (.55)	2.67 (.31)	2.17 (.63)	1.98 (.39)	1.42 (.61)
Cluster 3 (N = 26, 19%)	2.43 (.58)	1.55 (.33)	1.86 (.36)	1.59 (.50)	1.27 (.50)
Cluster 4 (N = 8, 6%)	4.15 (.61)	1.78 (.35)	3.08 (.75)	2.88 (.90)	1.23 (.48)
Cluster 5 (N = 32, 23%)	3.11 (.43)	3.03 (.37)	3.16 (.36)	3.14 (.37)	1.37 (.46)
Cluster 6 (N = 5, 4%)	4.44 (.38)	4.16 (.55)	4.40 (.57)	4.40 (.45)	1.57 (.66)

Table 4

Descriptive Statistics for Cluster Analysis of Pessimistic/Optimistic Attributional Style

	External M (SD)	Stable M (SD)	Global M (SD)	CWB M (SD)	OCB M (SD)
Full Sample (N = 139)	2.31 (1.10)	1.98 (.94)	1.98 (1.01)	1.25 (.44)	5.39 (1.18)
Cluster 1 (N = 37, 27%)	2.33 (.43)	1.82 (.58)	1.87 (.38)	1.33 (.55)	5.17 (1.13)
Cluster 2 (N = 7, 5%)	4.31 (.44)	1.76 (.36)	2.74 (.96)	1.26 (.51)	5.04 (.61)
Cluster 3 (N = 40, 29%)	3.08 (.41)	2.97 (.36)	3.05 (.44)	1.35 (.47)	4.84 (1.18)
Cluster 4 (N = 5, 4%)	4.43 (.39)	4.17 (.56)	4.40 (.56)	1.57 (.66)	4.62 (1.04)
Cluster 5 (N = 50, 36%)	1.11 (.30)	1.09 (.24)	1.06 (.24)	1.08 (.19)	6.12 (.94)
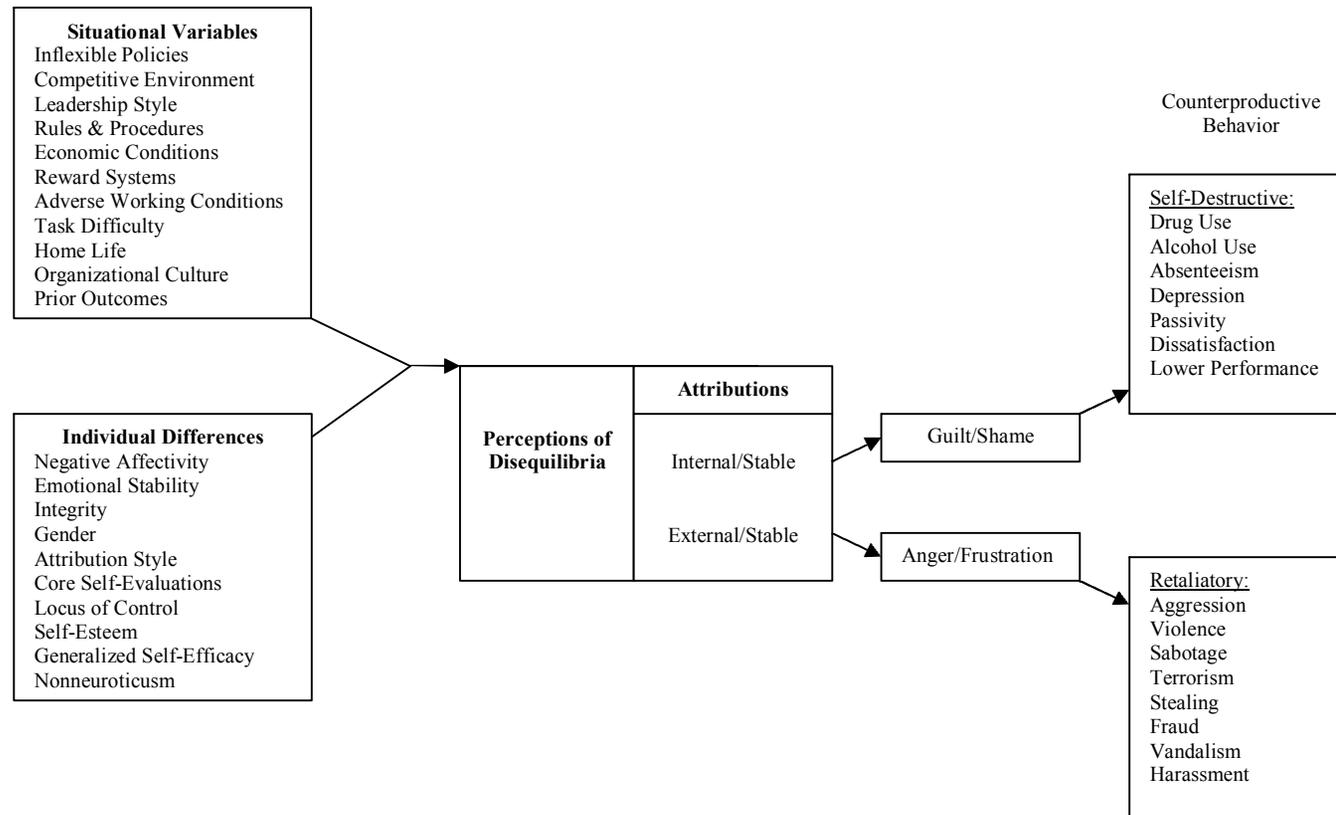
Figure 1: A causal reasoning model of counterproductive behavior (Martinko et al., 2002).
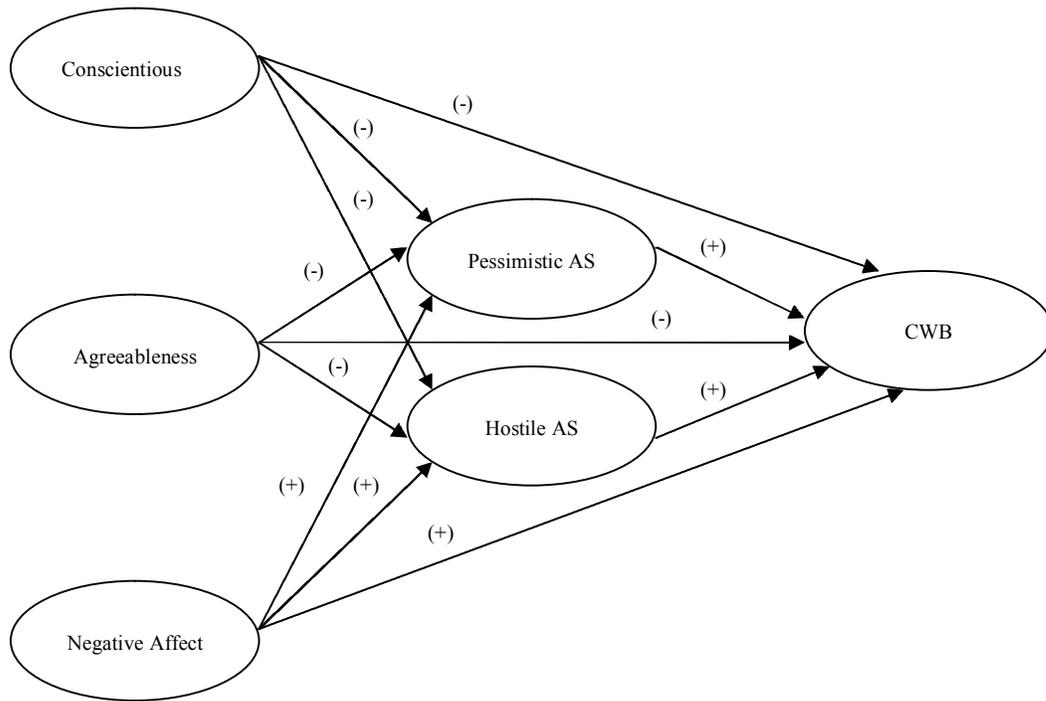
Figure 2: Proposed model of the relationship between individual differences variables, attributional style, and counterproductive work behavior.
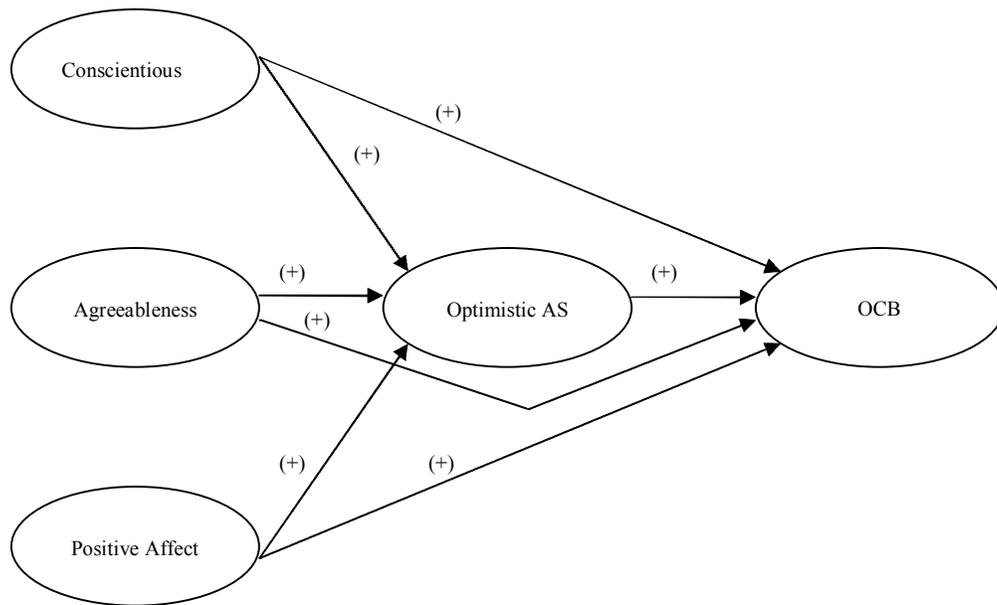
Figure 3: Proposed model of the relationship between individual differences variables, attributional style, and organizational citizenship behavior.
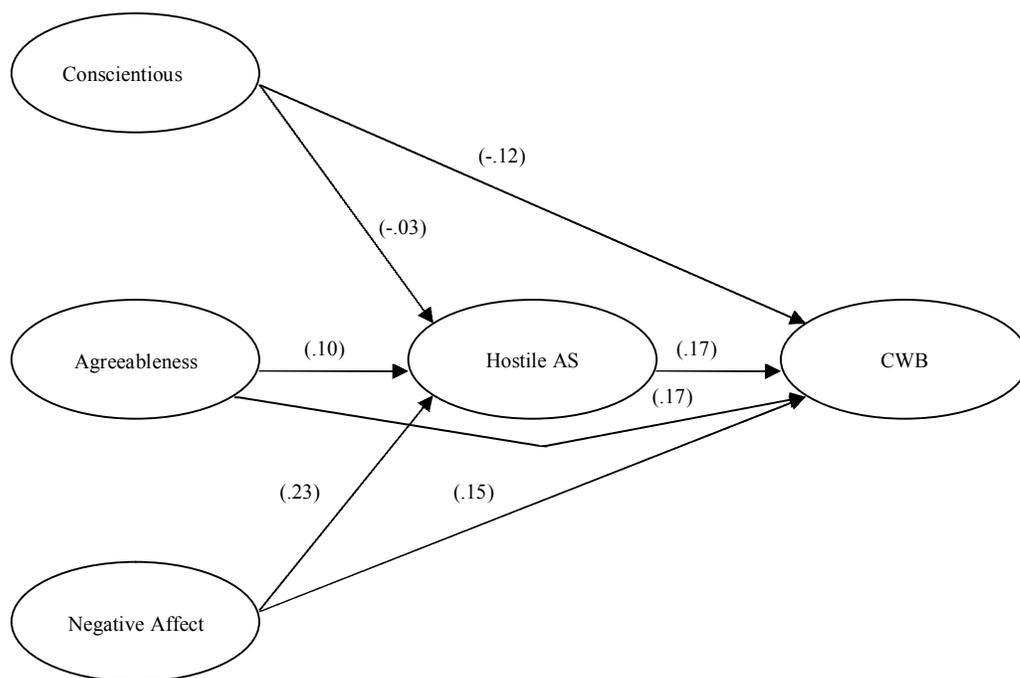
Figure 4. Standardized parameter estimates for Model 1.
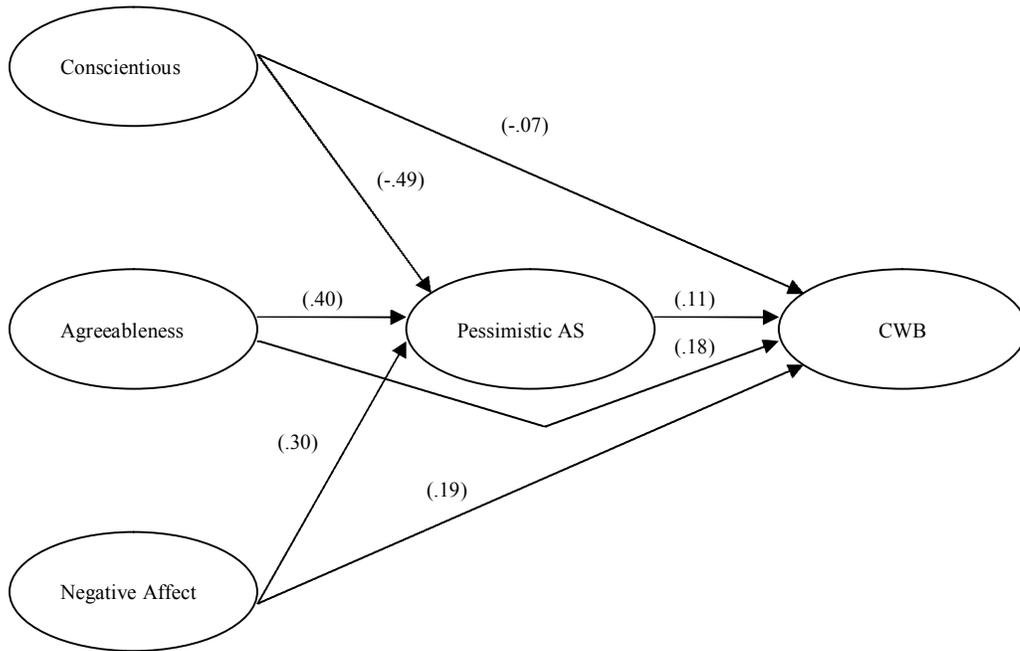
Figure 5. Standardized parameter estimates for Model 2.
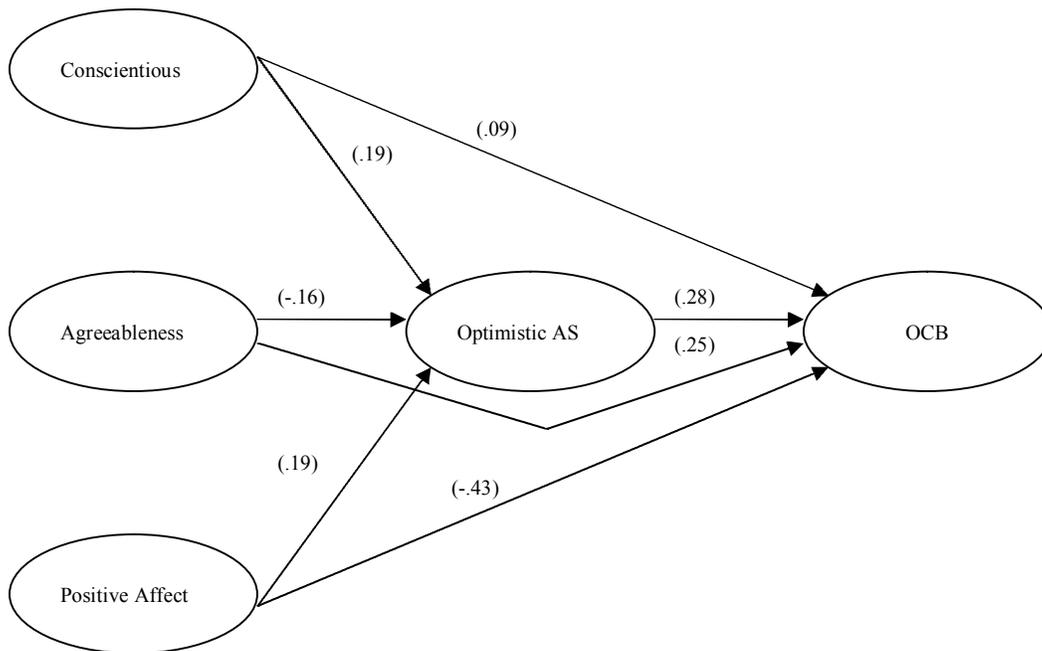
Figure 6. Standardized parameter estimates for Model 3.

Figure 7

ESS Increase for Final 30 Fusions (Hostile Attributional Style)
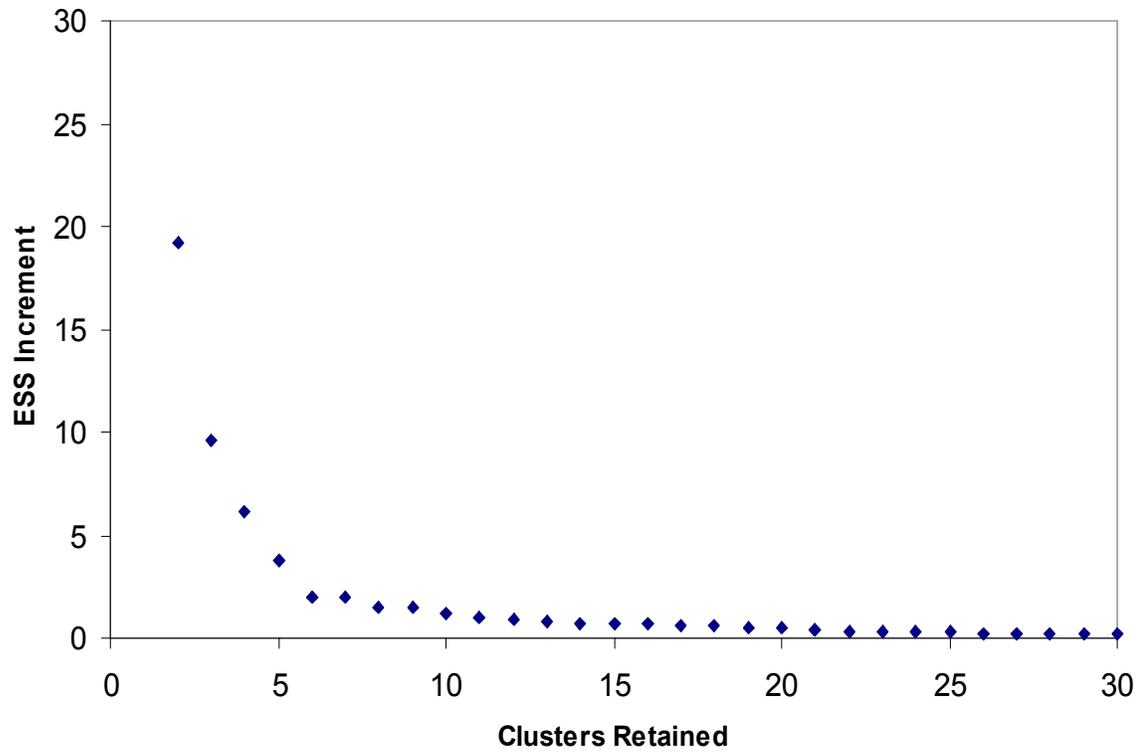
Figure 8

ESS Increase for Final 30 Fusions (Pessimistic/Optimistic Attributional Style)
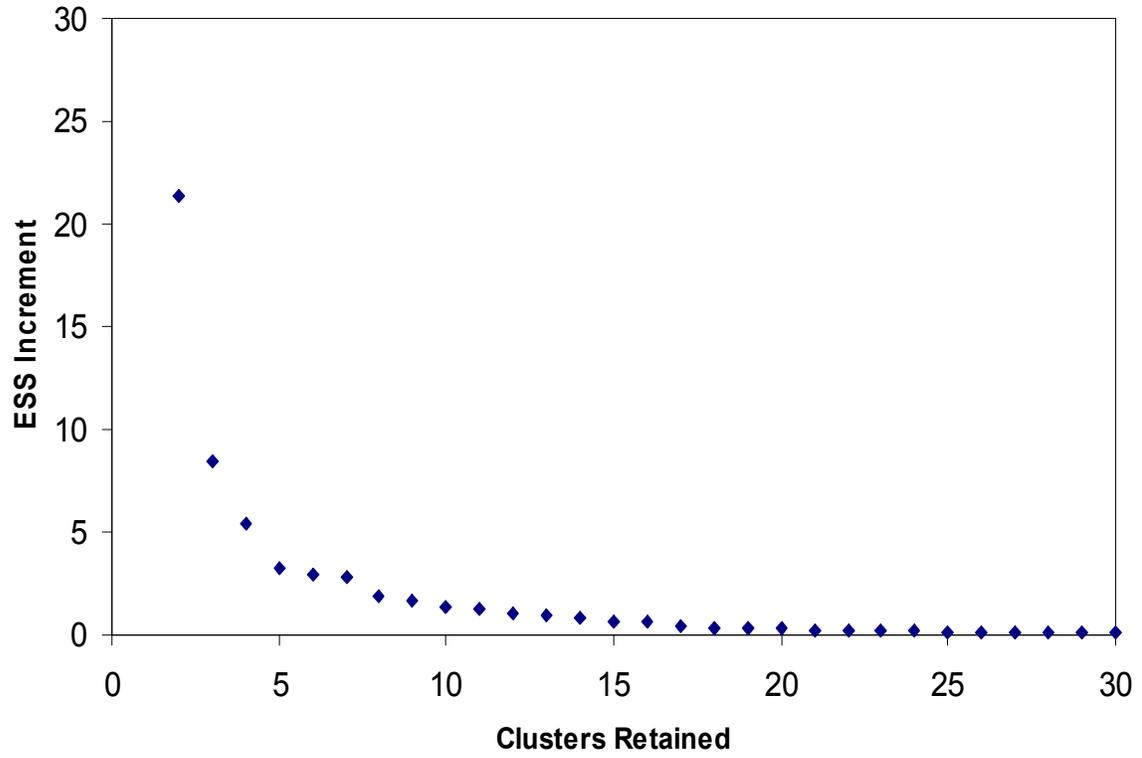
Figure 9

Cluster Centroids for Hostile Attributional Style
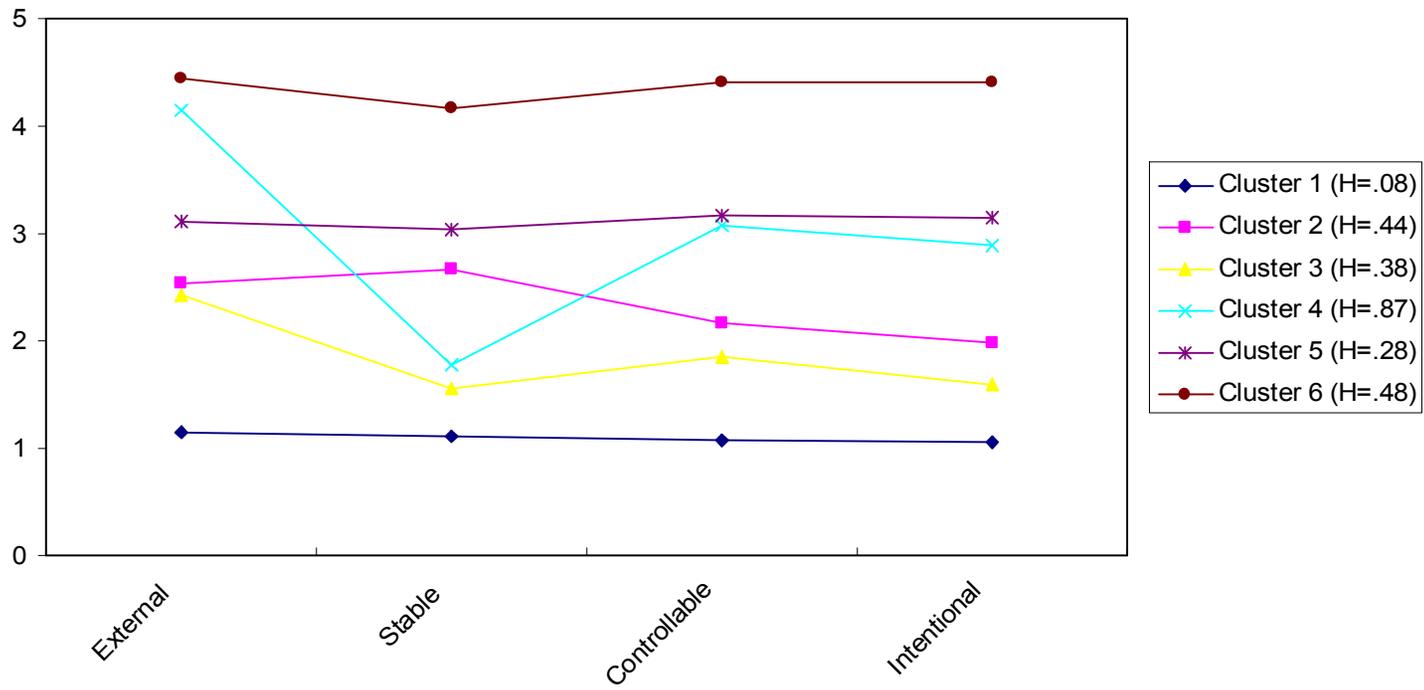
Figure 10

Mean CWB Scores for Clusters 1 through 6 (Hostile Attributional Style)
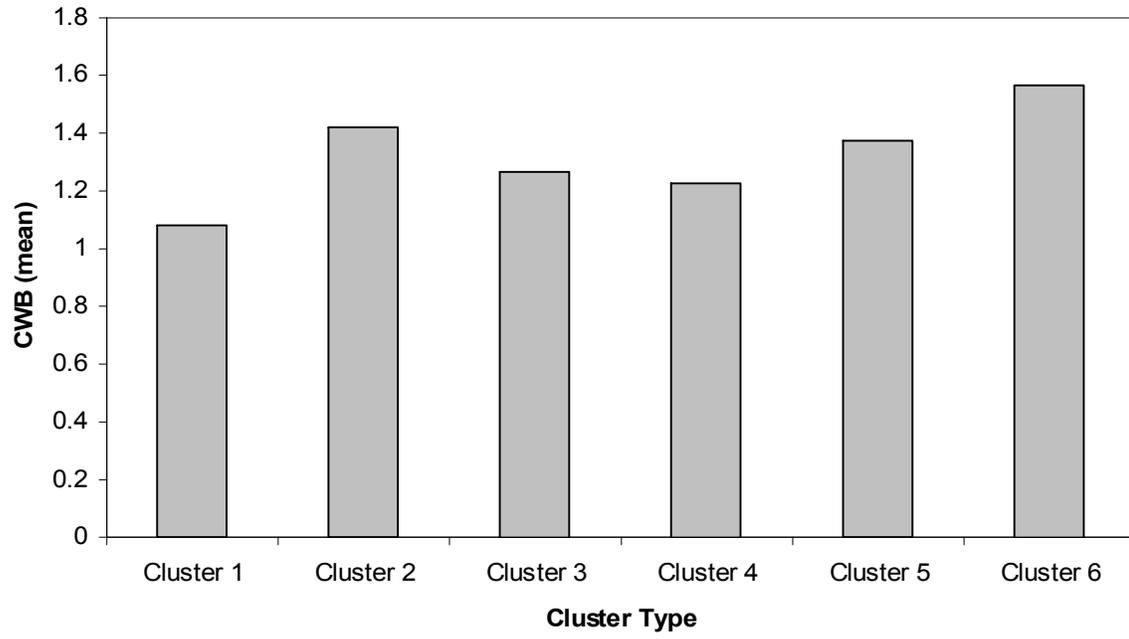
APPENDICES

Appendix A

Instructions: On the following pages, there are phrases describing people's behaviors. Please use the rating scale below to **indicate how accurately each statement describes you**. Describe yourself as you generally are now, not as you wish to be in the future. Read each statement and circle the number that corresponds to the scale.

Accurate means the statement describes you.

Inaccurate means the statement **does not** describe you.

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate or Accurate	Moderately Accurate	Very Accurate
I…					
1. Am the life of the party.	1	2	3	4	5
2. Feel little concern for others.	1	2	3	4	5
3. Am always prepared.	1	2	3	4	5
4. Get stressed out easily.	1	2	3	4	5
5. Have a rich vocabulary.	1	2	3	4	5
6. Don't talk a lot.	1	2	3	4	5
7. Am interested in people.	1	2	3	4	5
8. Leave my belongings around.	1	2	3	4	5
9. Am relaxed most of the time.	1	2	3	4	5
10. Have difficulty understanding abstract ideas.	1	2	3	4	5
11. Feel comfortable around people.	1	2	3	4	5
12. Insult people.	1	2	3	4	5
13. Pay attention to details.	1	2	3	4	5
14. Worry about things.	1	2	3	4	5
15. Have a vivid imagination.	1	2	3	4	5
16. Keep in the background.	1	2	3	4	5
17. Sympathize with others' feelings.	1	2	3	4	5
18. Make a mess of things.	1	2	3	4	5
19. Seldom feel blue.	1	2	3	4	5
20. Am not interested in abstract ideas.	1	2	3	4	5
21. Start conversations.	1	2	3	4	5
22. Am not interested in other people's problems.	1	2	3	4	5
23. Get chores done right away.	1	2	3	4	5
24. Am easily disturbed.	1	2	3	4	5
25. Have excellent ideas.	1	2	3	4	5
26. Have little to say.	1	2	3	4	5
27. Have a soft heart.	1	2	3	4	5
28. Often forget to put things back in their proper place.	1	2	3	4	5

I…	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate or Accurate	Moderately Accurate	Very Accurate
29. Get upset easily.	1	2	3	4	5
30. Do not have a good imagination.	1	2	3	4	5
31. Talk to a lot of different people at parties.	1	2	3	4	5
32. Am not really interested in others.	1	2	3	4	5
33. Like order.	1	2	3	4	5
34. Change my mood a lot.	1	2	3	4	5
35. Am quick to understand things.	1	2	3	4	5
36. Don't like to draw attention to myself.	1	2	3	4	5
37. Take time out for others.	1	2	3	4	5
38. Shirk my duties.	1	2	3	4	5
39. Have frequent mood swings.	1	2	3	4	5
40. Use difficult words.	1	2	3	4	5
41. Don't mind being the center of attention.	1	2	3	4	5
42. Feel others' emotions.	1	2	3	4	5
43. Follow a schedule.	1	2	3	4	5
44. Get irritated easily.	1	2	3	4	5
45. Spend time reflecting on things.	1	2	3	4	5
46. Am quiet around strangers.	1	2	3	4	5
47. Make people feel at ease.	1	2	3	4	5
48. Am exacting in my work.	1	2	3	4	5
49. Often feel blue.	1	2	3	4	5
50. Am full of ideas.	1	2	3	4	5

Please answer the following questions.

51. Please circle the appropriate age category as of your most recent birthday.

18-24   25-30   31-35   36-40   41-45   46-50   51-55   56-60   61-65   66-70   71-75
75-80

52. Please circle your gender.   Female   Male

53. Please circle highest degree obtained.

High School Diploma   B.A./B.S.   M.A./M.S.   Ph.D.   Professional Degree (ex. M.D., D.D.S.)

54. Please circle your primary language.

English   Spanish   Other

Appendix B

Instructions**:** This scale consists of a number of words that describe different feelings and emotions. Read each item and then **circle the number that describes to what extent you have felt this way during the past six months**. Use the following ratings:

During the past 6 months I have felt…	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
1. Interested	1	2	3	4	5
2. Distressed	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Upset	1	2	3	4	5
5. Strong	1	2	3	4	5
6. Guilty	1	2	3	4	5
7. Scared	1	2	3	4	5
8. Hostile	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Proud	1	2	3	4	5
11. Irritable	1	2	3	4	5
12. Alert	1	2	3	4	5
13. Ashamed	1	2	3	4	5
14. Inspired	1	2	3	4	5
15. Nervous	1	2	3	4	5
16. Determined	1	2	3	4	5
17. Attentive	1	2	3	4	5
18. Jittery	1	2	3	4	5
19. Active	1	2	3	4	5
20. Afraid	1	2	3	4	5

Appendix C

Instructions: The following items describe events that can happen at work. Read each event and **imagine it happening to you**. Next, indicate what the cause or circumstance of that event might be by circling one of the numbers on the scale beside it.

1. **You receive a poor performance evaluation from your boss.**

A. To what extent is this poor performance evaluation caused by something about you versus other people or circumstances?	1 2 3 4 5 Completely due to me	Completely due to other people or circumstances
B. To what extent will the things that caused the poor evaluation be present in the future in similar situations?	1 2 3 4 5 Never Present	Always Present
C. To what extent do you believe that another individual had control over the causes of your poor performance evaluation?	1 2 3 4 5 Absolutely no control	Total control
D. To what extent do you believe that another individual might have intended for this to poor performance evaluation to occur?	1 2 3 4 5 Did not intend	Totally intended
E. To what extent do you believe this poor performance evaluation will affect other situations?	1 2 3 4 5 Just this situation	All situations

2. **You fail to receive a promotion that you wanted for a long time.**

A. To what extent is the failure to receive the promotion caused by something about you versus other people or circumstances?	1 2 3 4 5 Completely due to me	Completely due to other people or circumstances
B. To what extent will the things that caused the failure to receive the promotion be present in the future in similar situations?	1 2 3 4 5 Never Present	Always Present

C. To what extent do you believe that another individual had control over the causes of your failure to receive a promotion?	1 Absolutely no control	2	3	4	5 Total control
D. To what extent do you believe that another individual might have intended for your failure to receive a promotion?	1 Did not intend	2	3	4	5 Totally intended
E. To what extent do you believe this failure to receive a promotion will affect other situations?	1 Just this situation	2	3	4	5 All situations

3. You receive almost no raise compared to others that you work with.

A. To what extent is the poor raise caused by something about you versus other people or circumstances?	1 Completely due to me	2	3	4	5 Completely due to other people or circumstances
B. To what extent will the things that caused the poor raise be present in the future in similar situations?	1 Never Present	2	3	4	5 Always Present
C. To what extent do you believe that another individual had control over the causes of you receiving a poor raise?	1 Absolutely no control	2	3	4	5 Total control
D. To what extent do you believe that another individual might have intended for you to receive a poor raise.	1 Did not intend	2	3	4	5 Totally intended
E. To what extent do you believe this poor raise will affect other situations?	1 Just this situation	2	3	4	5 All situations

4. A layoff was announced at your company and you are told that you will be one of those laid off.

	1	2	3	4	5
A. To what extent is your lay-off caused by something about you versus other people or circumstances?	Completely due to me				Completely due to other people or circumstances
B. To what extent will the things that caused your lay-off be present in the future in similar situations?	Never Present	2	3	4	5 Always Present
C. To what extent do you believe that another individual had control over the causes of your lay-off?	Absolutely no control	2	3	4	5 Total control
D. To what extent do you believe that another individual might have intended for you to be laid off?	Did not intend	2	3	4	5 Totally intended
E. To what extent do you believe this lay-off will affect other situations?	Just this situation	2	3	4	5 All situations

5. You have a difficult time getting along with your coworkers.

	1	2	3	4	5
A. To what extent is this difficulty caused by something about you versus other people or circumstances?	Completely due to me				Completely due to other people or circumstances
B. To what extent will the things that caused this difficulty be present in the future in similar situations?	Never Present	2	3	4	5 Always Present
C. To what extent do you believe that another individual had control over the causes of your difficulty?	Absolutely no control	2	3	4	5 Total control

D. To what extent do you believe that another individual might have intended for you to have a difficult time getting along with your coworkers?	1 Did not intend	2	3	4	5 Totally intended
E. To what extent do you believe this difficulty will affect other situations?	1 Just this situation	2	3	4	5 All situations

6. You are involved in a serious accident at work.

A. To what extent was this accident caused by something about you versus other people or circumstances?	1 Completely due to me	2	3	4	5 Completely due to other people or circumstances
B. To what extent will the things that caused your accident be present in the future in similar situations?	1 Never Present	2	3	4	5 Always Present
C. To what extent do you believe that another individual had control over the causes of the accident?	1 Absolutely no control	2	3	4	5 Total control
D. To what extent do you believe that another individual might have intended for your accident to occur?	1 Did not intend	2	3	4	5 Totally intended
E. To what extent do you believe this accident will affect other situations?	1 Just this situation	2	3	4	5 All situations

7. A resident complains about the poor service received from you to your boss.

	1	2	3	4	5
A. To what extent was the complaint caused by something about you versus other people or circumstances?	Completely due to me				Completely due to other people or circumstances
B. To what extent will the things that caused the complaint be present in the future in similar situations?	Never Present	2	3	4	Always Present
C. To what extent do you believe that another individual had control over causes of the complaint?	Absolutely no control	2	3	4	Total control
D. To what extent do you believe that another individual might have intended for the complaint to occur?	Did not intend	2	3	4	Totally intended
E. To what extent do you believe this complaint will affect other situations?	Just this situation	2	3	4	All situations

Appendix D

Instructions: Please read each statement below and circle a single number in each row that **best describes the employee** you are evaluating and their performance over the past two months. Use the following ratings:

Ratings (left to right): Strongly Disagree, Disagree, Somewhat Disagree, Neither Agree *nor* Disagree, Somewhat Agree, Agree, Strongly Agree

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. Attendance at work is above the norm.	1	2	3	4	5	6	7
2. Does not take extra breaks.	1	2	3	4	5	6	7
3. Obeys company rules and regulations even when no one is watching.	1	2	3	4	5	6	7
4. Is one of my most conscientious employees.	1	2	3	4	5	6	7
5. Believes in giving an honest day's work for an honest day's pay.	1	2	3	4	5	6	7
6. Consumes a lot of time complaining about trivial matters.	1	2	3	4	5	6	7
7. Always focuses on what's wrong, rather than the positive side.	1	2	3	4	5	6	7
8. Tends to make "mountains out of molehills."	1	2	3	4	5	6	7
9. Always finds fault with what the organization is doing.	1	2	3	4	5	6	7
10. Is the classic "squeaky wheel" that always needs greasing.	1	2	3	4	5	6	7
11. Attends meetings that are not mandatory, but are considered important.	1	2	3	4	5	6	7
12. Attends functions that are not required, but help the company image.	1	2	3	4	5	6	7
13. Keeps abreast of changes in the organization.	1	2	3	4	5	6	7
14. Reads and keeps up with organization announcements, memos, and so on.	1	2	3	4	5	6	7
15. Takes steps to try to prevent problems with other workers.	1	2	3	4	5	6	7
16. Is mindful of how his/her behavior affects other people's jobs.	1	2	3	4	5	6	7
17. Does not abuse the rights of others.	1	2	3	4	5	6	7
18. Tries to avoid creating problems for coworkers.	1	2	3	4	5	6	7
19. Considers the impact of his/her actions on coworkers.	1	2	3	4	5	6	7
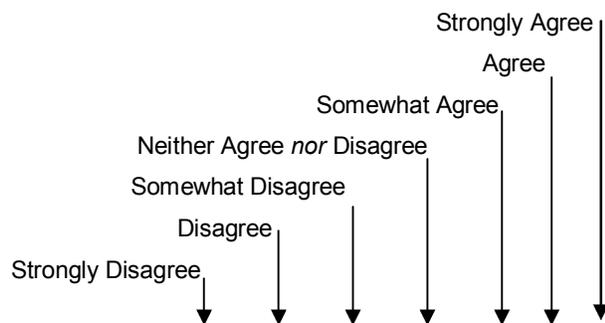
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
20. Helps others who have been absent.	1	2	3	4	5	6	7
21. Helps others who have heavy workloads.	1	2	3	4	5	6	7
22. Helps orient new people even though it is not required.	1	2	3	4	5	6	7
23. Willingly helps others who have work related problems.	1	2	3	4	5	6	7
24. Is always ready to lend a helping hand to those around him/her.	1	2	3	4	5	6	7

25. Is this individual still employed by your organization?   Yes   No

26. If you circled no, please circle the reason for their departure from the organization.

voluntary turnover   absenteeism   poor work performance   other

Appendix E

<u>Instructions</u>: Please read each statement below and circle a single number in each row that **best describes to what extent you have observed the employee** you are evaluating engage in each behavior within the past two months. Use the following ratings:

This employee has…	Never	Several Times a Month	Monthly	Weekly	Daily
1. Put little effort into their work.	1	2	3	4	5
2. Taken property from work without permission.	1	2	3	4	5
3. Spent too much time daydreaming instead of working.	1	2	3	4	5
4. Made fun of someone at work.	1	2	3	4	5
5. Falsified a receipt to get reimbursed for more money than they spent on business expenses.	1	2	3	4	5
6. Said something hurtful to someone at work.	1	2	3	4	5
7. Taken an additional or longer break than is acceptable at the workplace.	1	2	3	4	5
8. Publicly embarrassed someone at work.	1	2	3	4	5
9. Made an ethnic, religious, or racial remark at work.	1	2	3	4	5
10. Came in late to work without permission.	1	2	3	4	5
11. Littered their work environment.	1	2	3	4	5
12. Cursed at someone at work.	1	2	3	4	5
13. Used an illegal drug or consumed alcohol on the job.	1	2	3	4	5
14. Acted rudely toward someone at work.	1	2	3	4	5
15. Dragged out work in order to get overtime.	1	2	3	4	5
16. Neglected to follow supervisor's instructions.	1	2	3	4	5
17. Intentionally worked slower than they could have worked.	1	2	3	4	5
18. Discussed confidential company information with an unauthorized person.	1	2	3	4	5
19. Played a mean prank on someone at work.	1	2	3	4	5