

Whistleblowing: Understanding the Reporting of Workplace Deviance

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ACADEMIC ABSTRACT

Researchers have long studied the precursors to the reporting of deviant workplace acts. Previous research has often relied on descriptive studies utilizing survey research and/or simplistic models with one or two narrowly defined antecedents and demographic proxy variables. Results of these studies have resulted in inconsistent and even conflicting findings. The current study aimed to examine the causal antecedents of deviant act reporting in a more holistic way. Policy capturing was utilized to study intentions to report workplace deviant acts. Policy capturing is an idiographic approach where scenarios are used to establish the differential weighting of cues in judgment formation or behavioral intentions. Three causal antecedents were investigated. The locus of aggression and seriousness of the offense antecedents were based on the Robinson and Bennett (1995) typology of deviant acts. The third antecedent was the manipulation of the workplace offender (e.g., supervisor or peer). Subfacets of the Big Five characteristics previously found to be correlated with deviant behaviors were chosen for inclusion.

Participants were educators or administrators in higher education and were asked to rate how likely they would be to report a deviant incident via two different reporting options (e.g., internal vs. external). Each participant completed several demographic items, three subfacet personality inventories, and 32 hypothetical scenarios. Hierarchical linear model was utilized for the analyses. Results showed support for the hypotheses predicting that the three situational cues would affect intentions to report. For the internal model, the three situational cues and two-way interactions accounted for a 48.2% reduction in error variance; a 52.3% reduction for the external model. The minor/serious situational cue had the highest relative cue weight for both reporting avenues. Personality variables had little effect on reporting intentions. The only significant result was found in the internal model where more cooperative individuals were more likely to report an infraction.

This study serves as a baseline for future research on deviant act reporting. By utilizing the Robinson and Bennett (1995) typology, this research took an innovative approach to examining the reporting of acts within a classification system as opposed to previous studies which only examined specific behaviors.

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GENERAL AUDIENCE ABSTRACT

The interest in understanding deviant act reporting stems from the fact that deviant incidents are high, there are negative effects on other employees, and organizations can incur substantial financial ramifications. However, these acts are often not reported by other employees and, subsequently, behaviors are never addressed or rectified. Research in the area of reporting deviant acts has been inconsistent and has often lead to contradictory findings. The current study examined workplace deviant act reporting more holistically. A technique called policy capturing was utilized to determine which aspects of deviant acts are most likely to impact reporting intentions. Three aspects of the deviant act were examined. The locus of aggression (interpersonally directed vs. organizationally directed) and seriousness of the offense (minor vs. serious) were based on a typology of deviance developed by Robinson and Bennett (1995). The third aspect of the deviant act to be examined was the manipulation of the offender (supervisor of the witness or a peer of the witness). In addition, the impact of three personality aspects (cooperation, dutifulness and assertiveness) were examined.

Participants were educators or administrators in higher education and the scenarios were based on potential scenarios applicable to this setting. Participants were asked to rate the likelihood they would report the deviant act either internally or externally. Results showed that all three aspects of the deviant act played a role in reporting intentions via both reporting channels. By far, the seriousness of the offense was the most important aspects in individuals' decision to report. Personality variables had little effect on reporting intentions with cooperative individuals being more likely to report an infraction through internal channels. This study serves as a baseline for future research on workplace deviant act reporting.

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Chapter 1

Introduction

Whistleblowing: Understanding the Reporting of Workplace Deviance

Determining the circumstances in which employees report deviant workplace acts (e.g., whistleblowing) is an area of importance to organizations. Failure to report deviant behaviors is costly to organizations and adversely affects workers (Coffin, 2003; O’Leary-Kelley, Griffin, & Glew, 1996). The literature has shown significant variations in the types of deviant activities reported by employees (Near, Rehg, Van Scotter, & Miceli, 2004). For example, reporting of wrongdoings ranged from “a low of 17% (waste and discrimination) to a high of 53% for legal violations” (Near et al., 2004, p.230). In addition, reporting was more likely to occur for wrongdoings related to mismanagement and sexual harassment than wrongdoings related to safety or stealing (Near et al., 2004).

To understand the precursors to reporting, researchers have examined person (e.g., Miceli & Near, 1988; Mesmer-Magus & Viswesvaran, 2005; Cassematis & Worley, 2013), situation (e.g., Miceli & Near, 1985; Lee, Heilmann, & Near, 2004; Sulkowski, 2011), traditional person by situation (e.g., Proost, Pavlinska, Baillien, Brebels, & Van den Broeck, 2013; Taylor & Curtis, 2013), and person-situation dyadic relationship antecedents (e.g., King, 1997; Mesmer-Magnus & Viswesvaran, 2005; Miller & Thomas, 2005). These studies have produced inconsistent and, at times, conflicting results. Therefore, research on the intent to report deviant acts may benefit from a different approach. The primary goal of the current study was to understand the causal antecedents of unethical/deviant act reporting by examining them in a more dynamic way than past efforts. To achieve this more holistic view, policy capturing was used to examine antecedents identified in the typology of deviance developed by Robinson and

Bennett (1995) along with the antecedent of observer-perpetrator relationship. Policy capturing is an idiographic approach whereby scenarios are used to establish the differential weighting of cues in the formation of judgments or behavioral intentions. The cues presented are presumed to be causal antecedents and are fully crossed when considering all the scenarios. By presenting the causal antecedents simultaneously, policy capturing allows a more holistic examination of the causal antecedents.

Three causal antecedent categories were investigated. The Robinson and Bennett (1995) typology provided two of these categories. The typology classifies behaviors along two continuums; seriousness (e.g., minor vs. serious) and locus of aggression (e.g., behaviors organizationally directed vs. interpersonally directed). The third antecedent category was observer-perpetrator relationship (e.g., acts committed by a superior vs. those committed by peers). Additionally, individual personality subfacets of the Big Five were examined to determine their relationship with reporting intention. These subfacets were selected from the three Big Five categories previously found to be related to reporting. Researchers have advocated for the use of subfacets or narrow-bands when examining specific narrow criteria (Jenkins & Griffin, 2004). Also, subfacets have been shown to be significant predictors of workplace deviance (O'Neill & Hastings, 2011). Finally, when responding to the scenarios describing unethical behavior, participants indicated the likelihood of reporting the incident both internally and externally. Figure 1 presents the overarching framework for the current investigation.

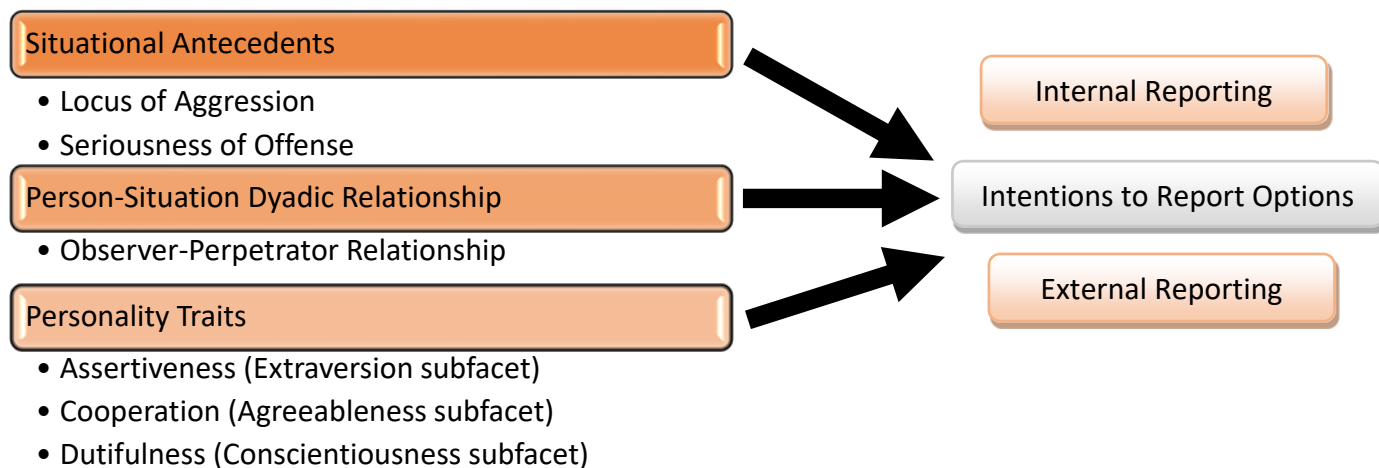


Figure 1. Overarching Conceptual Model

Person, Situation, and Person by Situation Approach

Researchers have extensively studied person characteristics of reporting behaviors including the demographic variables of gender (Miceli & Near, 1988; Mesmer-Magus & Viswesvaran, 2005; Cassematis & Worley, 2013), age (Sims & Keenan, 1998), and organizational tenure (Miceli & Near, 1988; Sims & Keenan, 1998) which have led to contradictory results. Individual differences shown to affect whistleblowing include locus of control (Chiu, 2003), moral development (Miceli, Dozier, & Near, 1991), ethical judgment (Chiu, 2003; Mesmer-Magnus & Viswesvaran, 2005), and individual whistleblowing propensity (Cassematis & Wortley, 2013). Big Five personality factors shown to be related to whistleblowing intention include conscientiousness (Brink, Cereola & Menk, 2015), extraversion (Bowling & Lyons, 2015; Brink et al., 2015), and agreeableness (Brink et al., 2015). All three of these personality factors showed a positive relationship with whistleblowing intention. However, studying the intent to report using person antecedents has been piecemeal and results have been inconsistent.

Situational antecedents affecting whistleblowing behavior include the seriousness of the act (Miceli & Near, 1985; Cassematis & Wortley, 2013) and perceived victimization (e.g., affecting employee directly, co-workers would be harmed; Miceli & Near, 1985, Cassematis & Wortley, 2013). Additionally, role responsibility (Trevino & Victor, 1992, Victor, Trevino, & Shapiro, 1993), the number observers (Miceli & Near, 1988), the potential evidence of the act (Miceli & Near, 1985), and the frequency and length of the act have all been found to be related to whistleblowing (Lee et al., 2004). As seen, there is significant variation in the situational antecedents examined by researchers as well as inconsistency in the definitions of some of these situational precursors.

Person by situation dyadic relationships have also been examined. The whistleblower's relationship to the person committing the deviant act has been operationalized in many ways including power distance (Miller & Thomas, 2005), relational closeness (King, 1997), and group membership (Trevino & Victor, 1992). Person by situation moderator research has been less frequently studied. However, moral aspects have been the focus of two investigations. Proost et al. (2013) found that moral identity was related to whistleblowing intention only when procedural fairness was low. Taylor and Curtis (2013) found that those perceiving the "scenario to be of lower moral intensity are much more influenced by power distance than are those who perceive it to be of high moral intensity" (p. 40).

Limitations of Past Research

Descriptive research. In the past three decades, research in deviant workplace act reporting has increased substantially. However, methodologically, the majority of the research in this area has been survey-based (e.g., Miceli, Near, & Schwenk, 1991; Victor et al., 1993; Lee et al., 2004; Cassematis & Wortley, 2013). One criticism of survey research is that individuals tend

to respond to survey items in a socially desirable manner (i.e., responses that would be considered favorable by others). This should be a concern to researchers investigating deviant workplace act reporting since it would be considered socially desirable to report these acts. The second criticism of survey research is the problem of common method variance or common method bias. Common method variance problems occur with survey research since data is being collected at the same time using the same instrument thus “observed values may share variance above and beyond the true covariation among them” which may cause “incorrect conclusions about relationship and magnitude” (Malhotra, Schaller, & Patil, 2017, p. 193).

The extensive use of descriptive research in the area of whistleblowing limits the understanding of the causal antecedents of reporting and limits theory testing. The current study utilized an experimental design in the form of policy capturing. This allows for the empirical examination of antecedents to reporting behavior. In addition, policy capturing is often utilized to help overcome the obstacles regarding an individual’s tendency to respond to scenarios in socially desirable ways (Karren & Barringer, 2002).

Simplistic model design and testing. Although a few experiments have been conducted in the area of deviant workplace act reporting (e.g., Trevino & Victor, 1992; King, 1997; Miller & Thomas, 2005; Taylor & Curtis, 2013), previous investigations were limited by the simplistic models used by researchers. A large majority of research in this area utilized models that are limited for causal inference due to researchers’ exclusive use of demographic proxy variables or models that are underspecified by researchers limiting their studies to investigations using only one or two antecedents. An obvious attempt to overcome underspecified models is to simultaneously examine the joint effects of person antecedents and situational antecedents. However, as mentioned previously, the person by situation approach has received scant attention.

By employing these simplistic designs, researchers have failed to capture the dynamic nature of whistleblowing contexts. In the current study, policy capturing was used to examine multiple person and situation causal antecedents. Policy capturing allows for examination of the consistency in an individual's use of cues to form behavioral intentions while also empirically estimating the relative importance individuals' place on different antecedents in their decision-making process (i.e., each participant's individual "policy" for reporting a deviant workplace act). Policy capturing is an idiographic analysis focusing on the study of the individual and how individuals utilize information to make judgments.

Second, as opposed to more broad characteristics previously investigated, narrow-band traits were examined. Researchers have argued that when predicting narrow criteria, narrow-band personality traits likely work better than broadband traits (Jenkins & Griffith, 2004; Schneider, Hough, & Dunnette, 1996). Hastings and O'Neill (2009) state that the use of narrow-band traits provides "clearer, and more defensible, interpretations of trait-criterion relations" (p. 291). Their study found that when examining personality-deviance correlations "facet aggregation" cancelled out the effects of subfacets for one Big Five characteristic (extraversion) and masked the effects of another (neuroticism). Two of the subfacet narrow-band traits used in the current study (cooperation and dutifulness) resulted in negative personality-deviance correlations (Hastings & O'Neill, 2009).

Narrow conceptual scope. Previous research on the reporting of deviant workplace behavior often focused on specific acts like sexual harassment (Lee et al., 2004), cheating (Trevino & Victor, 1992; Barnett, Bass, & Brown, 1996), and stealing (Victor et al., 1993). The current study takes a broader perspective of deviant behaviors by utilizing a taxonomy of deviance. Incorporating the Robinson and Bennett (1995) taxonomy into the examination of

reporting intentions allows for the investigation of reporting antecedents for a more comprehensive set of deviant acts.

Robinson and Bennett (1995) created a taxonomy of deviant workplace behaviors that incorporated existing taxonomies, but also added new categories of deviant behavior. They pointed out that previous typologies of deviant behavior captured “acts against organizations, such as theft and slowed production, but they do not seem to be able to account for deviant acts of an interpersonal nature, such as physical aggression and sexual harassment” (Robinson & Bennett, 1995, p.558). The empirical results of their investigation produced four categories of deviant behavior (Robinson & Bennett, 1995, p. 565):

- Property deviance (behaviors directed at organizations and are considered serious; examples: “stealing from a company” or “sabotaging equipment”);
- Production deviance (behaviors directed at organizations but are relatively minor; examples: “wasting resources” or “taking excessive breaks”);
- Personal aggression (behaviors directed at individuals within the organization and are serious; examples: “sexual harassment” and “stealing from co-workers”); and
- Political deviance (behaviors directed at individuals within the organization but are minor; examples: “gossiping about” or “blaming co-workers”).

Additionally, researchers in the area of whistleblowing have often presented only one reporting option to study participants (e.g., report to the next higher level, Miller & Thomas, 2005; report using hotline, Taylor & Curtis, 2013). However, researchers have shown reporting differences when subjects were presented with several options. Dworkin and Baucus (1998) found that individuals with less tenure were more likely to use external channels for reporting wrongdoings whereas longer tenured employees used internal channels. The researchers also

found no differences in reporting avenue based on the type of harm (physical harm vs. economic or psychological harm). However, Chen and Lai (2014) found that the reporting channel chosen by observers depended on both perceptions of harm and organizational commitment.

In the current study, two reporting options were available to respondents. One option was reporting to an internal agent (i.e., someone in an internal supervisory role other than the perpetrator). The second option was reporting to an external agent with authority to deal with the deviant act (e.g., human resources or institutional research board). Examining these two reporting options allowed for a better understanding of the weighting individuals give to specific study antecedents when reporting via each option.

Current Investigation

Utilizing the above taxonomy allows for a more inclusive framework; encapsulating a broader range of deviant behaviors within one investigation. Using this typology also adds to the whistleblowing literature by incorporating an antecedent category not previously utilized in the literature, locus of the aggression (organizational-directed vs. interpersonal-directed behaviors). Even though studies have investigated these behaviors as focal areas of study (e.g., interpersonally-directed behaviors like sexual harassment, Lee et al., 2004; organizationally directed behaviors like theft, Trevino & Victor, 1992), these categories were not incorporated as a manipulated factor.

Power hierarchy: Observer-perpetrator relationship. In conjunction with examining intention to report using seriousness and locus of aggression as causal antecedents, observer-perpetrator relationship was also investigated (e.g., peer to peer versus supervisor to peer). Few studies have specifically examined reporting intentions as a function of observer-perpetrator organizational relationships and those that have studied this dimension have done so in

conjunction with relational closeness and organizational response (Miller & Thomas, 2005; Taylor & Curtis, 2013). The two levels chosen for this investigation were based on appropriateness to the setting being used for the study (i.e., examining deviant acts within a higher education setting where faculty do not have subordinates reporting directly to them but do have other faculty as peers and chairs as supervisors).

Examination of personality traits. The current study also investigated specific subfacets of the three Big Five categories shown to be related to or predictive of reporting intentions (i.e., extraversion, agreeableness, and conscientiousness; Brink et al., 2015; Bowling & Lyons, 2015; Bjorkelo, Einarsen, & Matthiesen, 2010). Specifically, the extraversion subfacet of assertiveness, the agreeableness subfacet of cooperation, and the conscientiousness subfacet of dutifulness were examined.

Two of the narrow traits chosen, cooperation and dutifulness, have been examined in studies on the prediction of workplace deviant acts and negative personality-deviance correlations were found (Hastings & O'Neill, 2009). Dutifulness was chosen for inclusion based on this finding and because the definition of this trait conceptually aligns with reporting behavior. Individuals high on this trait tend to have a strong sense of duty and would presumably feel obligated to report deviant acts. Cooperation was also chosen for the current study because of the Hastings and O'Neill (2009) finding. However, even though they found a negative personality-deviance correlation, individuals high in this trait strive to get along with others and avoid confrontations which may inhibit them from reporting deviant acts. The final trait, assertiveness, although not found to be related to deviant acts (Hastings & O'Neill, 2009), was chosen based on its potential alignment with reporting behavior. Individuals high in the

assertiveness trait are more likely to take charge in situations and therefore are potentially more likely to report deviant acts.

Summary

The current investigation was a vignette-based policy capturing study. The participants were faculty members and administrators at institutions of higher education in the southeastern US. The three antecedents manipulated within the vignettes each contained two levels; locus of aggression (interpersonal vs. organizational), seriousness of the offense (serious vs. minor), and observer-perpetrator relationship (peer vs. supervisor). Subjects were asked to indicate their intent to report the deviant acts on two five-point likert scales. One scale was the likelihood of reporting through internal channels and the second was the likelihood of reporting through external channels. Each subject was exposed to all conditions as a within subject full factorial design. Personality traits were included as between-person antecedents (e.g., assertiveness, cooperation, and dutifulness).

The responses to the scenarios were analyzed via hierarchical linear modeling (HLM). This technique allowed for the examination of variance at both the within and between subject levels. By using HLM, average rating policies across participants and between individuals could be developed. Policy capturing enabled the researcher to determine how the three factors were weighted in the judgment process of participants when deciding the intent to report an event through an internal and external channel.

Chapter 2

Literature Review

Robinson and Bennett (1995) defined employee deviance as “voluntary behavior that violates significant organizational norms, and in doing so, threatens the well-being of an organization, or its members, or both” (p. 556). Interest in understanding employee deviance is driven by the high incidents of deviant acts, the negative effects on employees, and the financial losses incurred by organizations.

Chirasha and Mahapa (2012) investigated deviant workplace behavior at universities and asked participants to indicate the types of behaviors the university cautioned them about or brought them to hearings over. Ten percent of the sample indicated in the affirmative for stealing, 40% for coming to work late or leaving early, and 65% for disobeying superiors (Chirasha & Mahapa, 2012). Also, 70% of respondents reported being verbally abused by either a co-worker or superior and 75% said “they heard co-workers gossiping about other employees or spreading information through the grapevine” (Chirasha & Mahapa, 2012, p. 419).

Anjum and Parvez (2013) also studied counterproductive workplace behavior and found these behaviors occur more frequently among blue-collar workers than white-collar workers. However, both groups reported instances of deviant acts spanning a large spectrum of counterproductive behaviors, including abuse of others, withdrawal, production deviance, sabotage, and theft (Anjum & Parvez, 2013). In an examination of employee theft, Kennedy (2014) found that 64% of the small businesses surveyed in the Cincinnati area reported being victimized and further argued that the percentages found in his study are “no different than other areas of the country” (p. 252).

In terms of work relationships and human capital, Budd, Arvey, and Lawless (1996) found that of those individuals “who have been threatened at work within the last 12 months, 36.4% said that fear of violence has caused them to consider changing jobs, 9.1% missed work, 34.1% have experienced distress, and 22.7% have experienced reduced productivity” (p. 205). In fact, every type of incivility in the workplace likely leads to negative consequences including decreased job satisfaction and increased psychological distress (Cortina, Magley, Williams, & Langhout, 2001). Targeted individuals exhibit decreased productivity and low morale (O’Leary-Kelley et al., 1996).

Dunlop and Lee (2004) examined performance and counterproductive workplace behaviors at a fast-food chain. They examined both subjective supervisor ratings and objective indicators related to service time (e.g., counter and drive-through) and food loss figures. Their results showed that workplace deviant behavior had adverse effects on both of these aspects of organizational performance. Looking specifically at financial costs, Coffin (2003) stated that “employee theft and fraud costs U.S. businesses nearly \$50 billion annually, costs the average business between 1 and 2 percent of annual sales, and is responsible for nearly 20 percent of all business failures” (p. 8). In addition, Liberty Mutual (2004) found that assaults and violence cost organizations an estimated \$400 million.

In summary, deviant behaviors are prevalent in today’s workplace and the financial costs and negative effects on human capital are substantial. Consequently, it is understandable why emphasis has been placed on studying workplace deviance and understanding the causal antecedents affecting when individuals are likely to report these acts.

The Development of a Typology of Deviance and Resulting Contributions

In an attempt to more systematically address workplace deviance, Robinson and Bennett (1995) developed a typology of deviance which provides the framework for the current empirical investigation on antecedents to whistleblowing (e.g., intending to report deviance). The main goal of Robinson and Bennett's work (1995) was to build on already established deviant behavior classification systems while simultaneously adding constructs previously ignored. Robinson and Bennett (1995) discussed prior attempts made by researchers to classify employee deviance. In 1989, Redeker "developed a list of punishable offenses in organizations but did not integrate the different behaviors into any meaningful pattern" (as cited by Robinson & Bennett, 1995, p. 557). Hollinger and Clark (1982) then classified deviant workplace behaviors into two constructs: property deviance ("instances where employees acquire or damage the tangible property or assets of the organization") and production deviance ("behaviors which violate the formally prescribed norms delineating the quality and quantity of work to be accomplished"; p. 98). However, this classification only accounted for deviant acts directed at organizations and not those directed at individuals (Robinson & Bennett, 1995).

Robinson and Bennett believed that both of these behavioral categories are critical to developing an accurate typology (Robinson & Bennett, 1995). Using multidimensional scaling procedures, the results of their investigation produced two dimensions of behavior (serious vs. non-serious offenses and offenses organizationally directed vs. interpersonally directed) creating four distinct categories labeled as: property deviance, production deviance, personal aggression, and political deviance (Robinson & Bennett, 1995, p. 565).

The Robinson and Bennett (1995) investigation contributed to the study of workplace deviance in several ways. Most importantly, this study validated the dimensions previously

identified in Hollinger and Clark's (1982) classification system of deviant acts directed towards organizations but also added the deviant acts directed at individuals within these organizations. Robinson and Bennett (1995) state "findings suggest that workplace deviance research should address social as well as organizational forms of deviance. This refocusing is important in light of growing concerns about reducing social injustice, discrimination, and interpersonal violence in the workplace" (p. 566).

A second contribution of the taxonomy is that researchers may examine the specific causes of deviant work behaviors contained in each of the four classification areas (Robinson & Bennett, 1995). Robinson and Bennett (1995) give the example that "organizational variables might be more likely to influence deviance directed at harming organizations, and individual variables may be more likely to explain interpersonal forms of deviance" (p. 567). Finally, researchers may use this classification system to examine different models of deviance for each of the four classification areas (Robinson & Bennett, 1995). These contributions are also important in examining the reporting of or intent to report deviant acts. By having a classification system, researchers can systematically study how people evaluate different acts and, subsequently, how the reporting of different acts might have different antecedents.

However, the Robinson and Bennett (1995) taxonomy is not without its shortcomings. Berry, Ones, and Sackett (2007) conducted a meta-analysis on the Robinson and Bennett (1995) taxonomy and their findings demonstrated that the distinctiveness of the two locus of aggression categories (e.g., interpersonal vs. organizationally directed behaviors) was not always clear. This is understandable considering interpersonal deviant acts can impact the organization and vice-versa. However, Berry et al. (2007) stated that there were "differential relationships with the Big Five personality dimensions of agreeableness and conscientiousness and with most OCB

variables” (p. 417). Thus, the two dimensions should be considered distinct and useful for investigation. The current study is not focused on clarifying this distinction but rather to use the taxonomy to meaningfully operationalize workplace deviant acts for investigative purposes.

In general, “with more knowledge of how different types of CWB [counterproductive workplace behaviors] are related will come further insight into the antecedents and outcomes” of these behaviors (Bowling & Gruys, 2010, p. 55). By differentiating meaningfully between deviant behaviors, studies can gain insight into the types of behaviors being reported. Bowling and Gruys (2010) suggest investigations of CWBs targeting organizations (CWB-O) vs. individuals (CWB-I) and those considered major vs. minor infractions have been understudied in the literature. Bowling and Gruys (2010) state additional research is needed “with respect to the relationships between CWB-O and CWB-I and various antecedents and outcomes” as well as “differences in whether people would report others who are engaging in CWBs if the offenders' behaviors are viewed as minor rather than major” (p. 58).

By utilizing this taxonomy, a broader conceptual design than has been previously utilized for whistleblowing was investigated. The taxonomy was leveraged to provide coherence to the study and in the selection of cues used in the policy capturing scenarios. This allowed for the study of a range of deviant acts not previously seen in the whistleblowing literature because no overarching framework has ever been utilized.

Antecedents to Reporting Workplace Deviance: Person, Situation, and Person by Situation

Spector, Fox, and Domagalski (2006) state, “the literature demonstrates that violent, aggressive, and counterproductive work behaviors are best explained when both individual differences and situational factors are examined” (p. 36). Therefore, it only makes sense that

both individual and situational differences need to be accounted for when investigating what drives a person to report certain unethical behaviors (i.e. whistleblowing).

The narrative below offers a broad overview of the literature regarding whistleblowing antecedents. The research presented will cover studies experimental in nature, those that are survey-based, ones investigating actual reporting, and those examining reporting intention. This broader narrative will provide the reader with an understanding of the extensive array of research conducted in this area and the limitations and inconsistencies found. These limitations and inconsistencies led to the development of the current experimental vignette-based policy capturing study on reporting intention. This study utilized a more comprehensive conceptual design of workplace deviance and focused on specific narrow band personality traits.

Person antecedents to reporting. One demographic proxy variable that has received a great deal of attention in the literature but has produced inconsistent findings is gender. In the late 1980s, Miceli and Near (1988) examined archival survey data from several federal government agencies. This investigation showed that individuals who reported witnessing and subsequently reporting a wrongdoing were more likely to be male. This finding was replicated by Miceli et al. (1991a) in an experimental study using college students. In this study, the researchers had a research assistant conduct an objectionable act during an experiment. Participants in a follow-up questionnaire were given a chance to indicate if they witnessed anything objectionable during the course of the study. Participants who responded in the affirmative were considered to be whistleblowers.

Although these two studies (one survey-based and one experimental) found that male participants were more likely to report wrongdoings, a more recent study by Mesmer-Magus and Viswesvaran (2005) found that females were more likely to actually blow the whistle. However,

no gender differences were found when examining reporting intentions (meta-analysis study). Finally, in another survey-based investigation, Cassematis and Wortley (2013) found no gender differences when comparing non-reporting observers to whistleblowers.

Two other demographic variables, organizational tenure and age, have also produced inconsistent findings in the area of whistleblowing. The survey investigation by Miceli and Near (1988) found longer tenured employees were more likely to indicate they had reported a wrongdoing. In their meta-analysis, Mesmer-Magus and Viswesvaran (2005) found that when examining studies that focused on actual reporting (either survey based or experimental) longer tenured employees were more likely to report deviant behaviors. However, tenure was not associated with reporting intentions. In their experimental study, Sims and Keenan (1998) found that neither age nor organizational tenure predicted whistleblowing.

Although proxy variables may serve as useful predictors, they are limited in terms of causal inference. Proxy variables are often used as substitute operational definitions for biological or psychological causal antecedents. In reality, proxy variables represent a myriad of possible causal antecedents. With the use of proxy variables, there is the “potential for misinterpreting the results by attributing an observed effect to the proxy variable rather than to the variable for which it presumably acts as a substitute” (Pedhazur & Schmelkin, 1991, p. 288).

Whistleblowing research has also studied psychological characteristics. Characteristics that have been shown to affect whistleblowing include a person’s ethical judgment (Chiu, 2003; Mesmer-Magnus & Viswesvaran, 2005), locus of control (Chiu, 2003; Miceli et al., 1991a), moral development/morality (Miceli et al., 1991a), and individual whistleblowing propensity (Cassematis & Worley, 2013). Overall, an individual’s ethical judgment regarding a deviant act affects their reporting of, or intent to report, that act. In a survey investigation where participants

were asked about a hypothetical situation, Chiu (2003) found that Chinese managers “would see the need of blowing the whistle when they believed something happening at work is unethical” (p. 69). Mesmer-Magnus and Viswesvaran’s (2005) meta-analysis examined ethical judgment in studies that looked at either whistleblowing intention or actual reporting. Although the findings pertaining to reporting intention mirror the previous studies (that ethical judgment was related to whistleblowing intent), this finding did not hold when looking at actual reporting behavior (Mesmer-Magnus & Viswesvaran, 2005).

Chiu (2003) also found that internal locus of control individuals reported feeling more comfortable blowing the whistle. Thus, whistleblowing occurs more often “when they [employees] know that they are in control of the situation and/or the outcome” (Chiu, 2003, p. 69). In addition, Chiu (2003) found that locus of control functioned as a moderator between ethical judgment and intention to report. However, Miceli et al. (1991a) found no differences in reporting based on locus of control but did find differences in reporting based on moral judgment. Interestingly, they found that, as opposed to individuals with higher moral development scores, those with lower scores were more likely to indicate they witnessed something objectionable during the course of the experimental study (Miceli et al., 1991a).

Finally, a number of studies have examined morality surrounding a workplace event. At the most basic level, Miceli et al. (1991b) found that individuals surveyed regarding workplace incidents were more likely to do nothing rather than report that incident if they felt that reporting “was not morally required” (p. 123). Later, in an experimental study with auditors, Taylor and Curtis (2010) found that moral intensity is positively related to both the likelihood of reporting an act and the perseverance to reporting. As would be expected, the directionality of the relationship is such that “as moral intensity increased, both measures of reporting intention

increased” (p. 30). Related to the concept of morality, Cassematis and Wortley (2013) examined whistleblowing propensity (e.g., “the degree that an individual approves of whistleblowing, thinks employees should be encouraged to blow the whistle, and feels personally obliged to blow the whistle if he or she were to observe fraudulent or wrongful behavior”; Keenan, 2002, p. 19) and found that individuals with higher levels of propensity were more likely to report.

In terms of Big Five traits, Brink et al. (2015) found that conscientiousness, extraversion, and agreeableness were positively related to whistleblowing intentions. Conscientiousness and extraversion were predictors of this intent. Bowling and Lyons (2015) showed that extraversion was positively related to counterproductive workplace reporting, and Bjorkelo et al. (2010) showed that high extraversion and low agreeableness predicted whistleblowing behavior. However, these studies all used the very broad personality constructs contained in the Big Five.

Personality traits, whistleblowing, and the use of narrow-band subfacets of the Big Five. Soto and John (2009) stated that an “important limitation of examining personality in terms of the five broad domains is their low fidelity. Each domain subsumes more specific personality characteristics, sometimes referred to as facets” (p. 84). Thus, researchers have advocated for the use of narrow-band traits when examining narrow criteria (Jenkins & Griffin, 2004; Schneider et al., 1996). This narrow-band approach is used in current study.

The choice of subfacets to include was a two-part process. First, only subfacets belonging to Big Five traits shown to predict intentions to report were considered for inclusion (i.e., extraversion, agreeableness, and conscientiousness). Assertiveness was chosen based on its potential alignment with reporting behavior. The two other facets, dutifulness and cooperation, were chosen because prior research found evidence of a negative relationship between these subfacets and deviant behavior (Hastings & O’Neill, 2009).

The subfacets chosen for inclusion are defined below (www.personality-tests-big-5-aspects.htm):

- The extraversion subfacet assertiveness: Individuals high in this trait are those that like to speak out, take charge, and direct others. These individuals are often group leaders. Individuals who score low in this area tend to let others take control and not speak out. Based on this definition, it would be assumed that individuals higher in this trait would be more likely to speak out when witnessing a deviant act.
- The agreeableness subfacet cooperation: Individuals high in cooperation are those who dislike confrontations. These individuals are willing to compromise and deny their own needs to get along with others. Individuals low on this subfacet will use intimidation tactics to get their way. Thus, it would be assumed that those individuals high in cooperation will be less willing to report deviant acts in order to avoid a confrontation and get along with others.
- The conscientiousness subfacet dutifulness: High scorers on this subfacet are considered to be individuals with a strong moral obligation. Low scorers perceive rules and regulations as confining and can be seen as unreliable or irresponsible by others. Based on this definition and previous results demonstrating that this subfacet has a negative personality-deviance correlation, it would be assumed that those high in dutifulness will feel a moral obligation to report deviant acts they witness.

Situation and person by situation antecedents to reporting: Overview and introduction. Over the last several decades, investigations of deviant workplace act reporting have included studies examining contextual cues, traditional person-situation moderator studies, and person-situation dyadic relationship studies.

Situational antecedents to reporting. Several decades of research in whistleblowing has focused on the relationship between situational antecedents and the reporting of deviant acts. In an initial study of whistleblowing conducted by Miceli and Near (1985), survey data from 15 different organizations and over 8,000 employees demonstrated that individuals were more likely to blow the whistle when “they had more direct evidence of the focal activity” (p. 537). Later, in a survey of military personnel, Near et al. (2004) found that the observation of the wrongdoing was not the only influencing factor in reporting. They point out “the cost of the wrongdoing, the quality of the evidence, and potential of retaliation against the whistleblower all had an effect on the potential reporting” (Near et al., 2004, p. 219).

Other situational antecedents examined include work group size, role responsibility attributed to the observer, and the length and frequency of the perceived deviant act. Miceli and Near (1988) found that whistleblowing was more likely in larger work groups. Trevino and Victor (1992) and Victor et al. (1993) conducted studies examining prescribed job role responsibility. In a study of cheating behavior and manipulating the level of role responsibility, Trevino and Victor (1992) found that “subjects were more inclined to report a peer when “reporting was defined as a peer role responsibility within the group” (p. 47). Victor et al. (1993) examined role responsibility and intent to report with a field study. They found whistleblowing was related to the observer’s perception that co-workers could be harmed by thefts occurring within the organization and was again deemed to be a role responsibility of the observer. Lee et al. (2004) conducted a study that focused on the specific workplace deviant act of sexual harassment. They found that the frequency and length of the harassment and the perception of multiple harassers were all positively related to reporting.

Organizational-level variables also influence the likelihood of reporting the deviant act. In 2011, Sulkowski found that 69% of students were “at least somewhat willing to report” peer threats of violence on a college campus (p. 58). Factors positively related to willingness to report included the trust in the college support system (e.g., trust in the police, administrators) and feelings of connectedness to the campus environment (Sulkowski, 2011). Cassematis and Wortley (2013) looked more comprehensively at the effects of situational factors on reporting behaviors and found that individuals with higher levels of organizational propensity were more likely to report than non-reporting observers. Organizational propensity is defined as “an individual’s perceptions of an organization’s degree of encouragement of whistleblowing and the degree that the organization provides information on where to blow the whistle” (Keenan, 2002, p. 20).

Situational antecedents related to seriousness and locus of aggression. Two situational antecedents germane to the current investigation are seriousness of the deviant act and the locus of aggression. In their 1985 survey of over 8,000 employees, Miceli and Near (1985) found individuals were more likely to blow the whistle if they felt that the activity affected them directly. More recently, Cassematis and Wortley (2013) also found that perceived victimization was the most important factor distinguishing whistleblowers from non-reporting observers.

Miceli and Near (1988) investigated reporting based on perceived seriousness and work group size and found that reporting was more likely to occur when workers perceived the activity to be serious in nature. King (1997) also found that there is a relationship between the perception of severity, relational closeness, and the decision to report to a close friend. The findings demonstrated that when reporting through internal channels, there was a “significant relationship between relational closeness and reporting the wrongdoing to an immediate supervisor” (King,

1997, p. 429). However, respondents would only report a close friend if they perceived the wrongdoing as serious (King, 1997). Mesmer-Magus and Viswesvaran's (2005) meta-analysis found a small relationship between seriousness and reporting behaviors or intentions.

What is being labeled as "locus of aggression" is often held constant as a function of the topic area under investigation. For example, researchers studying sexual harassment (Lee et al., 2004), injurious practices (King, 1997), and violence (Sulkowski, 2011) focused on individuals as the locus of aggression. Lee et al. (2004) used data from over 10,000 governmental employees to examine whistleblowing of both felonious and non-felonious acts of sexual harassment. King (1997) conducted an investigation of nursing practices and potentially injurious behaviors. The seriousness of the wrongdoing situation presented ranged from administering the wrong medication to a patient to not washing hands between patient visits. This is an interpersonal deviant act with harm coming to a person in the nurse's care. Sulkowski (2011) also examined interpersonal harm (i.e., violence) and found that "almost 70% of students endorsed being 'at least somewhat willing' to report a threatening peer" (p. 60).

In contrast, research on topics such as theft (Trevino & Victor, 1992) and unethical organizational practices (Taylor & Curtis, 2013) focused on the organization as the focus of the aggressive act. Trevino and Victor's (1992) investigation on theft asked participants if they would be inclined to report a peer and found "respondents whose scenarios included pay docking were much more likely to justify peer reporting" (p. 53). This was supported by a follow-up field study conducted by the researchers which found that both role responsibility and interests of the group significantly influenced reporting. Taylor and Curtis's (2013) investigation of unethical organizational practices (i.e., auditors throwing away notes that need to be responded

to and maintained) found that participants were more likely to blow the whistle on peers than they were on superiors.

Seriousness and locus of aggression and Robinson and Bennett (1995) taxonomy. As seen by the above studies, perceived seriousness has been addressed as a contextual cue. However, locus of aggression is a contextual factor that has been held constant as a function of the topic being studied (e.g., sexual harassment). The taxonomy developed by Robinson and Bennett (1995) provided a categorization of deviant acts across these two factors and was utilized to examine whistleblowing across a larger range of deviant acts.

Person by situation antecedents to reporting. Two types of person by situation antecedents to reporting have been examined in the literature; the traditional interactionist approach (based on assessing the statistical interaction between an individual difference variable and a situational variable) and the person by situation dyadic relationship variables. This latter category was the primary area of interest for the current investigation.

Taylor and Curtis (2013) provides an example of the interactionist approach in their examination of moral intensity in combination with both power distance and gender. They found two interactions. The first interaction showed that, when prior organizational response was low, individuals were more likely to report peers but they were less likely to report supervisors (Taylor & Curtis, 2013). Additionally, power distance moderated the effect of moral intensity and willingness to report counterproductive work behaviors. Their findings demonstrated that individuals who perceived the “scenario to be of lower moral intensity are much more influenced by power distance than are those who perceive it to be of high moral intensity” (Taylor & Curtis, 2013, p. 40). They also demonstrated that men were less concerned with power distance than women. Also, Proost et al. (2013) examined moral identity and whistleblowing intention. They

found that “when procedural fairness was high, moral identity was significantly, positively related to intention to blow the whistle” (p. 22).

Several studies of person-situation dyadic relationships have been conducted over the years. Researchers have operationalized these relationship variables using group membership, power differential, and relational closeness. Trevino and Victor (1992) examined group membership and potential harm in an experimental study on reporting peer cheating. They found that individuals were more prone to report peers only in certain circumstances; one of which was group member harm (i.e., when “group members shared the consequences of the misconduct via curved grades;” Trevino & Victor, 1992, p. 47). King (1997) also found that there is a relationship between the perception of severity, relational closeness, and the decision to report to a close friend. These findings demonstrated that, when reporting through internal channels, there was a “significant relationship between relational closeness and reporting the wrongdoing to an immediate supervisor” (King, 1997, p. 429). Respondents would only report a close friend to an immediate supervisor if they perceived the wrongdoing to be serious in nature (King, 1997).

In a general investigation of workgroup hierarchies (workgroups vs. peers vs. supervisors) and relational closeness, Miller and Thomas (2005) found that (after accounting for the covariate of perceived responsibility to report) the relative position factor (workgroup, peer, supervisor) had an effect such that people in workgroups were the least likely to report unethical acts of a team member. Individuals were more likely to report peers but the peer/supervisor reporting rates were not different. They also found an interaction between workgroup and relational closeness in that the relational closeness factor had no effect on peer or work team reporting but when “there was a close relationship between supervisor and subordinate,

individuals were less likely to report the unethical behavior than when there was no close personal relationship” (Miller & Thomas, 2005, p. 322).

Mesmer-Magnus and Viswesvaran (2005) examined whistleblowing intention and found a small relationship between seriousness and reporting intentions and actions. However, there was a stronger relationship between personal closeness and reporting intention. “This finding suggests that the closer the potential whistle-blower is to the wrongdoer (whether interpersonally or with respect to organizational structure), the greater their [sic] intention to blow the whistle” (Mesmer-Magnus & Viswesvaran, 2005, p. 288). Lee et al. (2004) examined sexual harassment within governmental agencies and found that the level of harasser(s) was negatively and directly related to whistleblowing such that higher level supervisors were less likely to be reported.

As seen by the above narrative, person-situation dyadic relations are important to the understanding of whistleblowing intentions. Studies examining power differentials have consistently found differences in reporting based on this antecedent. However, these studies have focused on a single deviant act like sexual harassment (Lee et al., 2004). Power differential was operationalized in the current study through the observer-perpetrator dyad where the perpetrator was either a peer or supervisor of the observer.

Summary of antecedents in current investigation. Over the years, investigations of whistleblowing have examined many different causal antecedents. However, these studies have been conceptually narrow. For example, Victor et al. (1993) examined a specific organizationally-directed act (e.g., theft) but only examined the peer level of the dyadic relationship. Lee et al. (2004) examined power differential but only in the context of sexual harassment. Finally, Taylor and Curtis (2013) presented their participants one specific deviant

situation while examining reporting across different dyadic relationships (e.g., peer vs. supervisor reporting).

The current investigation attempted to be more comprehensive in that power differential was examined across variations in both seriousness of the offense and locus of aggression contexts as informed by the Robinson and Bennett (1995) taxonomy. Locus of aggression contained two levels; organizationally directed deviant acts and interpersonally directed deviant acts. Seriousness also contained two levels; minor and serious. Each of these factors were manipulated within the vignettes with the third situational factor being observer-perpetrator relationship. This third situational antecedent also contained two levels. One where perpetrators within the vignettes were in a supervisory role over the observer and the other where the perpetrator was a peer within the organization. Finally, three specific subfacets contained in three of the Big Five categories were utilized in the current study as person antecedents. These traits were included because researchers have advocated for the use of narrow traits when examining narrow criteria (Jenkins & Griffin, 2004; Schneider et al., 1996) and these traits were not previously studied in the investigation of whistleblowing.

Differing antecedents based on reporting options available. Only a few investigations of deviant workplace acts have studied different reporting options available to the observer. In a survey investigation of employees from 15 different organizations, Miceli and Near (1985) found that if there was a threat of organizational retaliation, the whistleblower was more likely to report the event to an outside agency. In addition, compared to internal reporters or inactive observers, “external whistleblowers witnessed more serious wrongdoings and were members of organizations with high incidence of wrongdoing and more retaliatory climates” (Miceli & Near, 1985, p. 537). In a survey of auditors, Miceli et al. (1991b) also examined wrongdoing

seriousness and reporting channels. They found that reporting via external channels was more likely to happen when the observer felt that there was a greater risk of harm from the wrongdoing.

Dworkin and Baucus (1998) examined cases in which employees reported to someone either internal or external to the organization. They found that type of harm (e.g., physical harm vs. economic harm or psychological harm) caused by the wrongdoing did not affect the reporting channel chosen by the observer. However, they did show that less tenured employees were more likely to use external avenues for reporting. Additionally, those reporting externally often “have greater evidence or witnesses, management knows about wrongdoing, and management may attempt to prevent the employee from reporting” whereas “internal whistleblowers tend to have little or no evidence with which to support their allegations of wrongdoing” (Dworkin & Backus, 1998, p. 1294). Chen and Lai (2014) used a questionnaire to study choice of whistleblowing channel and determined the channel chosen depended on both perceptions of harm and the organizational commitment level of the employee. They found that “when whistleblowers perceived high levels of potential harm, those with high levels of organizational commitment were more likely to use internal channels, whereas those with low levels of organizational commitment preferred external channels. When the potential harm was low, the channel preference was reversed” (p. 335).

All of these studies suggest that different reporting channels need to be examined independently as opposed to treating whistleblowing as one behavior no matter the reporting channel (Dworkin & Baucus, 1998). In addition, based on the contradictory findings for seriousness and reporting avenue, using a typology of deviant behavior which distinguishes between degree of harm and locus of aggression (e.g., Robinson and Bennett, 1995 typology)

might have an impact on the chosen reporting channel. A common problem for investigations of whistleblowing is that experimental methodologies are seldom utilized. None of the investigations examining reporting channel were experimental in nature. Rather, they were either survey-based or case study investigations. Finally, none of the investigations considered the third antecedent being examined in the current study which is observer-perpetrator relationship (e.g., supervisor vs. peer perpetrator).

Current Investigation: Overview

The current study examined deviant workplace act reporting behavior in a more dynamic way than previously seen in the literature. Policy capturing was used to examine the effects of three situational antecedents and three Big Five subfacets on intentions to report. Participants indicated their likelihood of reporting specific acts across two reporting options (e.g., internal vs. external reporting). Through the policy capturing vignettes, the three causal antecedents were fully crossed allowing for the examination of the relative importance individual's place on each of the antecedents when developing their "policy". The policy capturing methodology allowed for the determination of how the person is using the information to make a judgment and the weights individuals used when deciding to report an event. Through the use of hierarchical linear modeling, the three personality subfacets traits were modeled simultaneously with the situational antecedents.

The current study was conducted within an academic environment. The academic setting is well suited for the study of deviant behaviors for many reasons. First, universities are not immune to deviant acts. In 2012, Chirasha and Mahapa examined universities for the prevalence of deviant behaviors and their study revealed that "workplace deviance through its various forms was overt in universities" (p. 415). They found deviance was most commonly exhibited through

employees leaving early or coming in late to work, inappropriately using company property, and verbal abuse. “The research concluded that workplace deviance is not a phenomenon to be underestimated as it impacts negatively on both the organization total output and the individual employee’s moral and motivation” (Chirasha & Mahapa, 2012, p. 415). Second, academic environments contain various activities (i.e., teaching, service, and research) that provide for the ability to realistically manipulate the factors of interest in the study.

Faculty members and administrators at institutions of higher education in southeastern region of the U.S. were recruited via email to participate in the study. Participants were asked to complete several demographic items, the three subfacet personality scales, and the deviant scenarios. A total of 32 vignettes were presented to participants. This number was based on the full factorial combination of antecedents quadrupled to achieve appropriate power. Scenarios were gender neutral with the only information regarding the perpetrator being based on the relationship between the observer and perpetrator (i.e., supervisor vs. peer).

Finally, the purpose of policy capturing is to understand within person variation in decision weights applied by participants. The general expectation was that the three situational antecedents will affect intentions to report for both reporting options. Furthermore, it was expected that the all three personality subfacets would predict variance in intentions to report beyond that explained by the within person. It was predicted that assertiveness and dutifulness would be positively related to reporting intentions, whereas, cooperation would be negatively related to reporting intentions.

The determination of which antecedents will receive the most or least weight decision processes depends on the reporting option being examined. It was difficult to make definitive predictions on individual cue weights because most studies have examined only one reporting

option and those with multiple reporting options are survey based or case studies. However, Miceli et al. (1991b) found that people were more likely to report externally rather than internally when there was a greater risk of harm (i.e., public or co-workers could be harmed). Therefore, it was hypothesized that the locus of aggression weight would be larger than those of seriousness and observer-perpetrator relationship in the prediction of external reporting.

Furthermore, for internal reporting, it was predicted there would be an interaction between the cues of seriousness and observer-perpetrator relationship. This prediction was primarily based on the findings of Taylor and Curtis (2013) and Trevino and Victor (1992). Trevino and Victor (1992) found that individuals were more likely to report peers if group members would be harmed. Taylor and Curtis (2013) looked at unethical organizational practices and found that individuals were more likely to report peers than they were to report supervisors. In addition, their findings demonstrated that participants were much more influenced by power distance if they considered the scenario to have lower moral intensity as opposed to higher moral intensity. Taken together, it would seem as if the reporting of supervisors would be more likely for serious infractions whereas the reporting of peers would remain more consistent from minor to serious infractions.

Chapter 3

Method

Main Study Participants

During January and February of 2019, 58 university faculty and administrators, primarily from the southeastern region of the United States, participated in the study. Since respondents were anonymous, the location and institutions of respondents is not definitively known, although recruitment was focused primarily at Virginia Tech and Radford University. Based on the responses to the demographic items, the majority of the respondents were teaching faculty (48.3%), participated in four or more areas during their tenure in higher education (94.8%), were from the physical or social sciences (19.0% and 22.4% respectively), had been in academia for sixteen years or more (75.8%), and were male (58.6%). See Appendix A for full demographic tables. Participation in the current study was voluntary and no compensation was offered.

Design Statement

The design of the main study was a policy capturing investigation utilizing hierarchical linear modeling for global interpretation. The three within person variables at level 1 were seriousness (serious vs. minor), locus of aggression (interpersonally directed vs. organizationally directed), and observer-perpetrator relationship (supervisor vs. peer). The level 2 between subject analyses were three personality subfacet scores for assertiveness, cooperation, and dutifulness.

Procedure for Main Study

Data were collected data using a shotgun solicitation where the investigator recruited participants through contacts at several academic institutions by personal email. Each personal acquaintance initially received an email request for participation (see Appendix B). This initial

request explained why the study was being conducted and that they will not be receiving any compensation for their participation. Participants were also informed their responses would be anonymous, the estimated time it might take them to complete entire study, and that there will be an opportunity for them to provide contact information if they would like to receive investigation findings at the completion of the study. If they decided to participate, they clicked on a link that directed them to the main study site. Several weeks after the initial emails were sent, reminders were sent (see Appendix C). Subjects were also encouraged to forward the participation link to others in higher education who might be willing to participate.

Subjects completed the study via an online instrument developed in the Qualtrics survey software. The first page of the main study site contained the informed consent form (see Appendix D). Subjects were asked to read the document and confirm that they agreed to participate. Once in the main study site, each participant was asked to first complete several demographic items. Then subjects were asked to complete the subscale personality scales. Finally, participants read each of the 32 scenarios. At the end of each scenario, each subject provided two ratings related to intentions to report. Vignettes were presented in a random fashion to control for order effects.

Faculty members were able to start the study and return at a later time to complete it, so it is hard to determine the average amount of time it took to complete. For those completing the survey the same day in a relatively close time frame (under 2 hours), on average, it took faculty 25 minutes to complete. The shortest time was 12 minutes with the longest being an hour and 18 minutes. At the end of the administration, participants were asked whether they would like to receive study results. If they respond affirmatively, another screen was presented asking them for their email address.

Policy-Capturing Scenario Development

Initially, 48 scenarios were developed for the pilot study. There were six variations for each factorial combination of the three study antecedents: seriousness (serious vs. minor), locus of aggression (interpersonally directed vs. organizationally directed), and observer-perpetrator relationship (supervisor vs. peer). For the observer-perpetrator relationship antecedent, scenarios presented the perpetrator either in a supervisory position over the observer or as a peer of the observer. In the supervisor condition, the rater was asked to imagine he/she is a tenured associate professor in an academic department and observe their department chair conduct the described behavior. In the peer condition, the perpetrator of the described behavior was another professor in the department.

The scenarios were developed to be gender neutral for both the observer and the perpetrator. The scenarios developed for the each of the same factorial combination of the antecedents were not verbatim duplicates; rather, the scenarios were chosen based on the seriousness ratings given by pilot study participants. All initial scenarios are presented in Appendix E and the final scenarios used in the main study are presented in Appendix F.

For the main study, in order to have adequate power, the full factorial combination of the three manipulated antecedents (e.g. serious vs. minor, organizationally vs. interpersonally directed, and peer vs. supervisor) was quadrupled resulting in 32 different scenarios. The 32 scenarios used for the main investigation resulted in 16 scenarios per cell for the main effects, 8 scenarios for the two-way interactions, and 4 scenarios per cell for the three-way interaction. To compensate for the low number of observations per cell for the interaction effects, the alpha level was increased to 0.1. The rationale for the use of only 32 scenarios in the current study is based on the need to keep the time constraints reasonable given the population of interest.

Pilot study. Virginia Tech graduate students were recruited to participate in the pilot study. The pilot investigation was designed to evaluate the seriousness of the offense described in each of the initial 48 scenarios. Students were recruited from the various academic programs through two means. First, an overall request for participation was sent through the Virginia Tech graduate student listserv (see Appendix G). Second, participants were recruited via email from the researcher's home department (see Appendix H). Participants were not compensated for their participation.

After reading the request for participation, and if they wanted to participate, graduate students clicked on a link in the listserv posting or the recruitment email. This link took them to the main survey site. Once in the survey site, subjects were asked to read an informed consent document (see Appendix I) and had to agree to participate in order to be continue to the study.

Subjects then were asked to read each of the 48 scenarios and rate each on a five-point scale (e.g., minor to serious; see Appendix J). Scenarios presented to subjects were randomized to control for order effects. At the end of the survey, subjects were asked to respond to three demographics items; their enrollment status, gender, and age in years (see Appendix K).

Pilot Study Results. The pilot study was designed to evaluate the seriousness of the hypothetical offenses. Several graduate students logged into the survey system but did not respond to more than a few scenarios. Therefore, any respondent that failed to give a response for the majority of the scenarios was removed from the analyses. The total number of respondents was 28.

Responses were then examined to determine if any subject rated all the scenarios the same or showed little variation in their responses. Three subjects were identified for removal because their mean response across all items was more than 1.5 standard deviations above or

below the average for respondents across all cases. All participants were full-time graduate students. Seven participants identified as male, sixteen as female, one failed to respond to the item, and one participant self-identified genderqueer. The average participant age was 25.7 years old and ranged from 21 to 40.

The four scenarios in each of the eight cue factorial combinations were chosen for inclusion in the main study based on the mean ratings for the seriousness dimension as well as estimate of the interrater agreement of the group (rWG calculation). Once identified, efforts were made to the wording of some items to either decrease/increase the seriousness presented as needed. See Appendix L for the means, standard deviations and rWG calculations for the scenarios selected to be included in the main study.

Manipulated Antecedents

The first antecedent, locus of aggression, was based whether or not the aggressive act was organizationally or interpersonally directed. The second antecedent was the seriousness of the offense and the final antecedent was the manipulation of the observer-perpetrator relationship.

Manipulation of Alternative Reporting Options

Reporting intention was the focus of the current investigation. Participants were asked to rate the likelihood of reporting to both an internal agent and an external agent (see Appendix J for main study response scales). The internal agent was operationalized as someone in a supervisory role internal to the college (e.g., department chair, associate dean, dean, etc.). External agent was operationalized as someone in an authority role external to the college of the incident (e.g., human resources, professional organization, legal office, etc.).

Personality Causal Antecedents

The current study investigated specific subfacets: assertiveness (extraversion), cooperation (agreeableness), and dutifulness (conscientiousness). Each of the three subfacets of the Big Five used in the current study contain 10 items (see Appendix M for personality subfacet items). The IPIP scales for these three subfacets were used for the current study. Table 1 presents the mean item intercorrelations, Cronbach alpha reliability estimates based on responses from the Eugene-Springfield Community Sample (sample size greater than 800), and the correlation of the subfacets with those contained in the NEO (“A Comparison Between the 30 Facet Scales”, n.d.).

Table 1

Mean Item Intercorrelations, Coefficient Alphas, and Correlations between IPIP and NEO Subfacets

Scale Names		<i>Mean Item Intercorrelation</i>		<i>Coefficient Alpha</i>		<i>Correlation IPIP vs. NEO</i>
		IPIP	NEO	IPIP	NEO	
IPIP	NEO					
<i>Extraversion</i>						
Assertiveness	Assertiveness (E3)	.34	.33	.84	.80	.81 [.99]
<i>Agreeableness</i>						
Cooperation	Compliance (A4)	.22	.26	.73	.73	.71 [.97]
<i>Conscientiousness</i>						
Dutifulness	Dutifulness (C3)	.20	.23	.71	.67	.60 [.87]

Note. Bracket values are “correlations corrected for unreliability” (“A Comparison Between the 30 Facet Scales”, n.d.).

Other Measures: Demographics

Each of the participants were asked five demographic items (see Appendix N). The first item asked participants their primary role at the institution (either teaching faculty, research faculty, or administration). The second asked them to indicate all areas that might have participated in during their tenure in higher education. The third question asked them to indicate their primary educational area (science, education, engineering, liberal arts and humanities, business, agriculture, arts, architecture, health related, natural resources, or other). Finally, the last two items participants were asked to respond to included gender (male, female, prefer not to

respond) and the number of years they have been in academia (less than five, five to 10, 11 to 15, 16 to 20, 21 or more).

Dependent Variables

Each subject gave two responses after each of scenario. First, respondents rated the likelihood they would report the described incident to someone internal to the college (e.g., department chair, associate dean, dean, etc.). The second item asked the respondents to rate the likelihood they would report the incident in the scenario to someone external to the college (e.g., human resources, professional organization, legal, institutional research board, sponsored programs office, etc.). Response scales were five points (1 = Would not report, 2 = Unlikely to report, 3 = Would possibly report, 4 = Likely to report, 5 = Would definitely report).

Analysis

Policy capturing methodology was used and analyzed via hierarchical linear modeling (HLM) to examine variance at the within subject and between subject levels. Policy capturing is used to determine how the three factors are weighted in the judgment process of participants when deciding the intent to report the event through both internal and external channels. HLM is used to develop the average rating policies across participants and between individuals based on personality characteristics.

Hierarchical linear modeling was used for analysis as opposed to traditional regression since the data structure was hierarchical in nature. Using traditional regression with hierarchical data structures limits the types and complexity of theories that can accurately be examined because of “statistical limitations.” Miyazaki (2014) calls this the “impoverished conceptualization of theory” (slide 35). HLM can examine phenomena at each level and allow

researchers “to ask more complex questions about proposed relationships in a multilevel conceptual model” (Thomas & Heck, 2015, slide 7).

There are several statistical and conceptual advantages to using HLM over traditional regression for hierarchical data (e.g., policy capturing studies). Statistically, by using disaggregation, researchers have violated the assumption of independence of observations. This violation could produce biased standard errors, which could result in incorrect regression coefficients and potentially increase the possibility of making a Type I error. HLM can account for the “shared variance in hierarchically structured data” and produces standard errors that are undistorted (Woltman, Feldstain, MacKay, & Rocchi, M., 2012, p. 52).

Another statistical problem with using traditional regression for hierarchical data involves with the issue of homogeneity of regression slopes. Traditional regression techniques produce the same regression coefficient for each group at the higher level. HLM enables a researcher to develop separate regression coefficients for each unit. HLM can also handle missing or unbalanced data. With other techniques, researchers would need to either eliminate cases or impute values when conducting analyses.

For all of the reasons previously discussed, HLM has become the analysis method of choice for policy capturing studies. HLM allows for the examination of “within and between person variance” enabling researchers to examine the policy used by each subject and whether between-person variables play a role in the development of that policy (Blume, Baldwin, & Rubin, 2009, p 84). With a policy capturing study, within-person analyses capture the decision policy of each study participant and the between-subject analysis captures the impact of participant characteristics (Klaas, Mahony, & Wheeler, 2006).

Chapter 4

Results

Basic descriptive statistics for the three personality subfacets are presented in Appendix O. On average, individuals rated themselves highest in dutifulness ($M = 45.60$) and lowest in assertiveness ($M = 36.64$). All three items showed good range with dutifulness slightly positively skewed. All but two respondents completed all demographic questions, personality items, and gave responses for the two scenario rating options (e.g., internal and external). For these two cases, each respondent missed giving an internal and external rating for one of the scenarios. To include these in the analyses, the average rating for the three other scenarios in that factorial category was imputed.

Initial Determination if Multi-level Model is Appropriate

The first step when conducting HLM is to determine whether multi-level analysis is needed. This involves calculating intraclass correlation coefficients (ICCs). “A multilevel conceptual model implies that variance in the outcome is distributed between the group and the individual” (Thomas & Heck, 2015, slide 26). If between group differences are trivial, OLS regular regression is appropriate (Rutkowski, 2015, slide 15). “It is hard to set a general threshold here, but the hierarchical data structure should not be ignored if the ICC is 0.05 (5%) or more” (“Chapter 3: The basic two-level model,” 2013, para. 8).

The ICC is calculated by dividing the between-subjects variance by the total variance. This value represents the proportion of total variance accounted for by between-group differences with the remainder being within subjects as seen in (1) (Thomas & Heck, 2015, slide 24).

$$\rho = \frac{\sigma_{between}^2}{\sigma_{between}^2 + \sigma_{within}^2} = \frac{\sigma_{intercept}^2}{\sigma_{intercept}^2 + \sigma_{residual}^2} = ICC \quad (1)$$

The ICC for the current internal rating model equals 0.172 indicating that approximately 17.2% of the variance in the dependent variable was between subjects (level 2 variables). The values used to compute the ICC are obtained from the covariance parameter estimates as shown in Table 2. The ICC for the external model equals 0.225 or 22.5% (see Table 3). These values justify using multilevel analysis.

Table 2

Covariance Parameter Estimate Table: Null Model Analysis for Internal Ratings

Parameter	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>P</i>	
Residual	1.39	0.05	29.98	0.00	
Intercept	Variance	0.29	0.06	4.64	0.00

Table 3

Covariance Parameter Estimate Table: Null Model Analysis for External Ratings

Parameter	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>P</i>	
Residual	1.53	0.05	29.98	0.00	
Intercept	Variance	0.45	0.09	4.82	0.00

Level 1 Model Development for Two Rating Options

Sequential models from random intercept to random slope were developed to determine the appropriate model for level 1 variables.

Internal Model. The initial random intercept model for internal ratings included the three level 1 situational cues and all interactions among those cues. Two methods of estimation for parameter values are available in HLM; maximum likelihood (ML; which has been shown to be more accurate for fixed regression parameters and is needed to compare models) and restricted maximum likelihood (REML; which has been shown to be better for random estimates) (Field, 2013). Since it was important to examine random parameter estimates and compare models, both analyses were conducted. Generally, smaller values on the log-likelihood estimate (-2LL)

indicate a better fitting model (Field, 2013). The statistical method used to compare models is the likelihood ratio test (LRT); calculated by subtracting the -2LL values from the two models. The value produced “follows a chi-square distribution with degrees of freedom equal to the difference in degrees of freedom [parameter estimates] between the models” (Beaumont, 2012, p. 15).

Equations 2 and 3 (Field, 2013, p. 826):

$$X_{change}^2 = (-2LL_{old}) - (-2LL_{new}) \quad (2)$$

$$df_{change} = k_{old} - k_{new} \quad (3)$$

The parameter estimates produced as a result of this initial random intercept analysis are presented in Appendix P. The model fit values utilizing the REML estimation method are presented in Appendix Q and those using the ML estimation are presented in Appendix R. Three different fit indices are provided and, for each of these, smaller values indicate a better fitting model (-2LL, the Akaike’s information criteria, and the Schwarz’s Bayesian criteria). The Akaike’s information criteria estimate takes into account the number of parameters the model is estimating. The Schwarz’s Bayesian criteria estimate also takes into account the number of parameters but also accounts for the number of observations. Both estimation methods showed a better fit when examining the -2LL value. The null model was statistically compared to the random intercept model using the above LRT method ($X_{change}^2 = 5989.95 - 4983.81 = 1006.41$ with $X_{change}^2 = 10 - 3 = 7, p = 0.01$).

The model was significantly better than the null model but the three-way interaction was not significant. Since no three-way interaction was predicted, it was dropped from the model and the random intercept model with only the main effects and 2 way interactions was conducted (see Appendix S). The results of this analysis demonstrated that the model with the three way

interaction included was a poorer fit for the data than the one that just contained only the two way interactions (see Appendices Q and R for the -2LL values).

The next step for HLM is to develop the random coefficient model. Initially this model was developed with the three main level 1 cues and all two-way interactions. This model failed to converge; therefore, in order to examine the significance of the random slopes, each was entered in independent models. As shown in Appendix T, all the two-way interaction slopes were non-significant or redundant and, often the model failed to converge. Generally if there is non-convergence issues or slopes are redundant, the slope variation is non-significant. In addition, Snijders & Bosker (2012) state that it is hard to interpret random slope interaction effects and, because of non-convergence issues, it may be necessary to only use a small number of random slopes in the final model. Thus, all two-way random slopes were dropped from the model.

The significant random slopes were found for two of the main cues (organizational/interpersonal and minor/serious) and the models were a better fit. The random slope for the peer/supervisor main effect was not significant when examining the Wald z statistic. However, because the Wald z statistic can be unpredictable, “for random parameters especially,” (Field, 2013, p. 841), the models were compared using LRT and the model produced actually was a better fit for the data. Therefore, the random slopes for all three main effects were included in the final model. This model was a significant improvement over the random intercept model ($X^2_{change} = 4983.82 - 4907.46 = 76.36$ with $X^2_{change} = 9 - 18 = -9, p = 0.01$).

The results of the random intercepts and slope model is presented in Appendix U and the fixed effects parameters estimates are presented in Table 4 below. The intercept of the regression line for a typical participant is 3.57 and two of the main effects and two of the two-way interactions are significant. Further discussions regarding these findings as they pertain to the

hypotheses of interest are presented in the hypothesis testing section. The covariance parameters estimates for the main effect cues demonstrate that there is significant intercept and slope variance across participants.

Table 4

Estimates of Fixed Effects for Random Intercepts and Slopes Model (REML Estimation: Internal Ratings)*

Parameter	<i>B</i>	<i>SE B</i>	<i>P</i>
Intercept	3.57	.08	0.00
Peer/Supervisor Cue (PS)	0.16	0.02	0.00
Organizational/Interpersonal Cue (OI)	-0.05	0.03	0.07
Minor/Serious Cue (MS)	-0.73	0.03	0.00
Interaction: PS * OI	-0.09	0.02	0.00
Interaction: PS * MS	0.02	0.02	0.34
Interaction: OI * MS	0.06	0.02	0.00

* Covariance Parameter Estimates Showing Intercept and Slope Variance and Covariance are presented in Appendix U.

External Model. Following the same procedures utilized for the internal ratings, the external rating model development produced similar results. The initial random intercept model included the three main cues and all interactions among those cues. The results of this analysis are presented in Appendix V. The model fit results utilizing REML estimation are presented in Appendix W and ML estimation are presented in Appendix X. An examination of the -2LL values showed that the full factorial random intercept model was a better model than the null model. The LRT statistical comparison utilizing the ML estimation method supported this conclusion ($X^2_{change} = 6195.20 - 5055.95 = 1139.25$ with $X^2_{change} = 10 - 3 = 7, p = 0.01$).

Although the model was significantly better than the null model, the three way interaction was not significant and, therefore, dropped from the model. The random intercept model with only the main effects and two-way interactions was shown to be significantly better than the null

model (see Appendix Y for parameter estimates and Appendices W and X for the model estimates). The next step was to develop the random coefficient model with the main effects and two-way interactions. This initial model failed to converge. Therefore, each effect was entered in independent models and the estimates for the covariance parameters were examined (Appendix Z). Results showed that all two-way interaction slopes were not significant or redundant and, often the model failed to converge. Thus, all two-way random slopes were dropped from the model.

The slope variance for the minor/serious main effect cue was significant. For the other two main effects, the slopes were non-significant through the Wald z statistic. LRT tests were then conducted and it was determined that the one main effect slope (I/O), although non-significant, did show a significant increase in the model fit. The other main effect slope (P/S) test was not significant and did not enhance the model. Therefore, the random slopes for two of the three main effects were included in the final model. This model, as compared to the random intercept model was a better fit for the data ($X^2_{change} = 5056.06 - 4954.05 = 102.01$ with $X^2_{change} = 9 - 14 = -5, p = 0.01$).

The results of the final model are presented in Appendix AA and the fixed effects parameters estimates are presented in Table 5 below. The intercept of the regression line for a typical participant is 2.72 and there are significant effects for all main effects and two-way interactions. Further discussions regarding these findings as they pertain to the hypotheses are presented in the next section. The covariance parameters estimates for the main effect cues demonstrate that there is significant intercept and slope variance across participants.

Table 5

Estimates of Fixed Effects for Random Intercepts and Slopes Model (REML: External Ratings)*

Parameter	<i>B</i>	<i>SE B</i>	<i>P</i>
Intercept	2.72	0.09	0.00
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.03	0.01
Minor/Serious Cue (MS)	-0.81	0.04	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00

* Covariance Parameter Estimates Showing Intercept and Slope Variance and Covariance are presented in Appendix AA.

Level 1 Hypothesis Testing for the Two Rating Options

The first hypothesis predicted that the three situational antecedents will affect intentions to report in both reporting options. Additional hypotheses regarding the prediction of the individual cue weights or interaction effects was different for the two reporting options. Therefore, each rating option will be discussed separately.

Internal Model. In addition to the overall prediction regarding the situational cues, for the internal rating option, an interaction effect was predicted such that reporting of supervisors would be more likely for serious infractions whereas the reporting of peers would remain more consistent from minor to serious infractions. In examining results from the random coefficient model, the fixed effects can be interpreted as the average coefficient for each of the cues and the two-way interactions from the regression equation across all 58 participants. Table 4 contains these values. In support of the overall hypothesis, two cue main effect cues had significant effects on intentions to report internally. The positive or negative coefficients presented in table 4 indicate the direction of the effect for each factor on internal ratings. If looking only at the

coefficients for the main effects, the peer/supervisor cue was in a positive direction, indicating that reporting intentions were higher for peers than for supervisors. The other two cues had significant negative coefficients. For the organizational/interpersonal factor, this means that reporting intentions were lower for organizational actions as opposed to actions of an interpersonal nature (although not significant). In addition, the minor cue condition has significantly lower reporting intentions than the serious condition. The largest average coefficient was for the minor/serious cue ($B = -0.73$), followed by the peer /supervisor cue ($B = 0.16$), and then the organizational/interpersonal cue ($B = -0.05$).

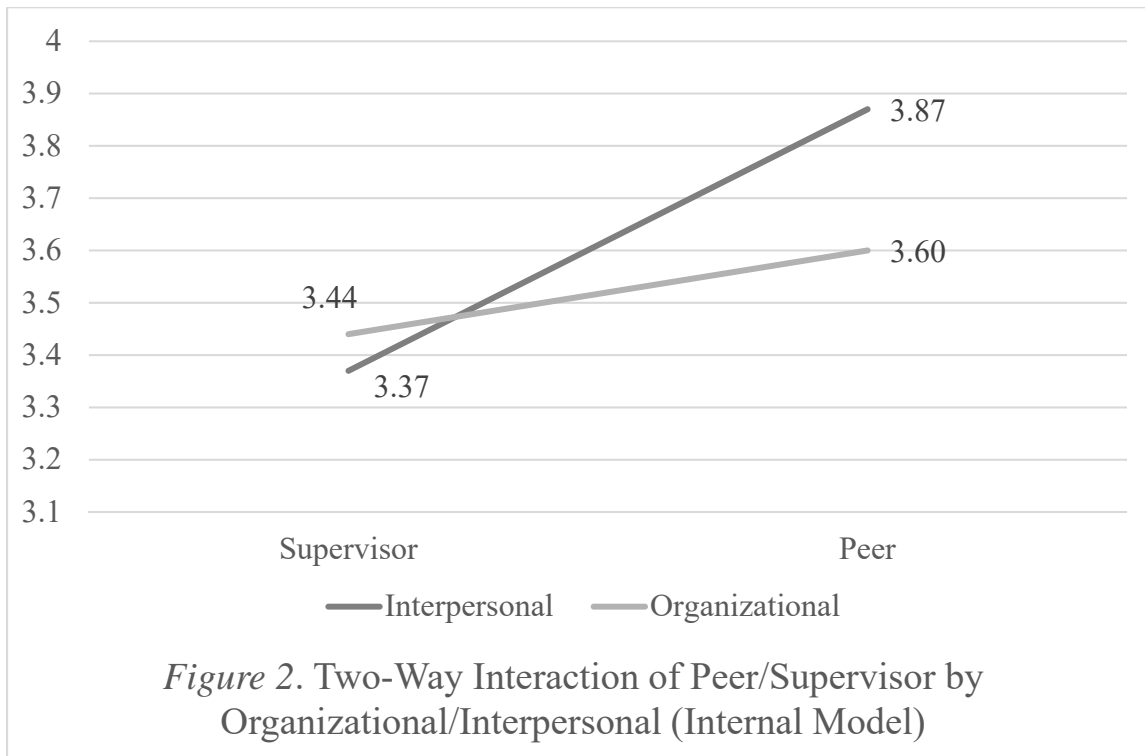
Researchers use the pseudo R^2 to indicate “the amount of variance accounted for by comparing the variance component in an unconditional model to the same variance component in a conditional model” (Anderson, 2012, p. 14). Equation 4 (Thomas & Heck, 2015, slide 34):

$$\frac{\sigma_{model1}^2 - \sigma_{model2}^2}{\sigma_{model1}^2} = Pseudo R^2 \quad (4)$$

This value demonstrates the proportion the internal rating and intercept variance decrease with the addition of the three situational cue variables along with the two-way interactions. The variance estimate for the null model was 1.39, and for the level 1 model, it was 0.72. For the current internal model, therefore, the pseudo R^2 value equals 0.482. Therefore, the set of predictors averaged across subjects accounted for 48.2% reduction in error variance for the internal model.

Even though two of the cue factors significantly predicted intentions to report to an internal agent, two of the three two-way interactions were also significant. Even though interactions were not predicted, interpretation of these interactions was necessary to interpret and understand the observed main effects. The two-way interaction of the peer/supervisor *

organizational/interpersonal conditions was statistically significant ($B = -0.09, p = 0.00$), First, the interaction was graphed (see figure 2).

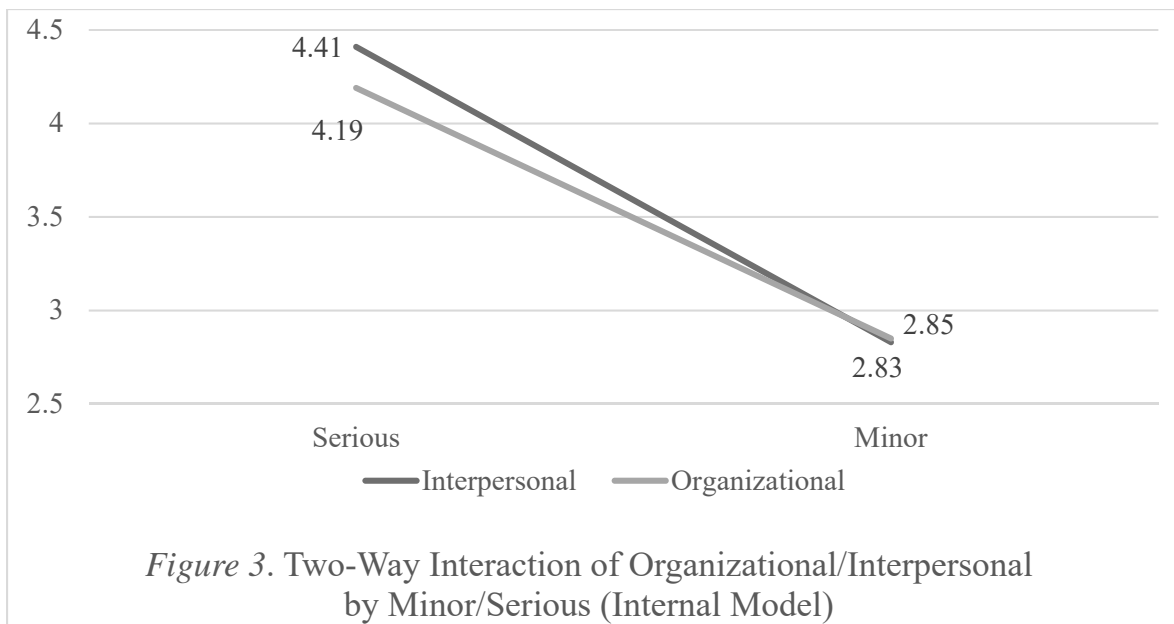


The graph demonstrates that overall, workplace infractions committed by supervisors were less likely to be reported than those committed by peers. However, the reporting intention increased if the infraction committed by the supervisor was against the organization. On the other hand, the reporting intention for peers was higher for infractions of an interpersonal nature as compared to reporting intentions of infractions committed against the organization.

Next, as suggest by Field (2013), analyses were conducted for the organizational/interpersonal and peer/supervisor conditions separately. Results demonstrated that the effect of the peer/supervisor category was statistically significant for both the organizational and interpersonal infraction conditions (Organizational: $B = 0.08, p = 0.04$; Interpersonal: $B = 0.25, p = 0.00$). However, interpersonally directed actions had a much higher impact on workplace infraction internal reporting for peers than organizationally directed actions. The results when

breaking out the interaction by the peer/supervisor category showed that, in the peer condition, the organizational/interpersonal factor was significant ($B = -0.14, p = 0.00$). However, in the supervisor condition, this was not the case ($B = 0.04, p = 0.35$). Therefore, the organizational/interpersonal cue did not affect the intentions to report supervisors.

Next, the significant effect two-way interaction of organizational/interpersonal * minor/serious conditions ($B = 0.06, p = 0.00$) was examined. The interaction was first graphed (see figure 3).



Next analyses were conducted for the minor/serious and organizational/interpersonal conditions separately. Results demonstrated that the effect of the organizational /interpersonal category was significant for the serious infractions ($B = -0.11, p = 0.00$) but not for the minor category ($B = 0.01, p = 0.80$). This shows that in the serious category, organizational infractions are less likely to be reported than interpersonal infractions. However, there was no difference in reporting when the infraction was minor. The examination for the organizational/interpersonal categories showed that the minor/serious cue was significant for both the organizational ($B = -0.67, p = 0.00$) and interpersonal conditions ($B = -0.79, p = 0.00$). Therefore, serious infractions

are more likely to be reported whether or not the infraction was organizational or interpersonal in nature. There was no difference in the reporting of minor infractions as a function of the interpersonal/organizational factor.

In summary, the situational cues affected intentions to report internally. Overall, the situational cue of minor/serious has the largest effect with serious infractions being more likely to be reported. Additionally, peers were more likely to be reported as were interpersonal infractions. Interactions demonstrated that the interpersonal/organizational factor had no effect in intentions to report supervisors but was significant within the peer condition where interpersonal interactions were more likely to be reported. Across both interpersonal and organizational infractions, peers were always more likely to be reported. Finally, within the minor/serious situational cue, no reporting differences were found between interpersonal vs. organizational infractions in the minor condition. However, the interpersonal/organization cue had an effect in the serious condition with interpersonal acts being more likely to be reported. For both interpersonal and organizational infractions, serious offenses were always more likely to be reported.

External Model. As was predicted for the internal reporting option, the general prediction was that the three situational antecedents would affect intentions to report for the external reporting option. Additionally, for the external reporting option, it was hypothesized that the organizational/ interpersonal cue weight would be larger than those associated with the peer/supervisor cue and the minor/serious cue.

As was done for the internal ratings, the Pseudo R^2 value was calculated to determine the proportion to which the external rating and intercept variance decrease with the addition of the three situational cue variables along with the two-way interactions. The variance estimate for the

null model was 1.53, and for the level 1 model, it was 0.73. For the external model, the pseudo R^2 equals 0.523. Therefore, the set of predictors averaged across subjects accounted for a 52.3% reduction in error variance for the external model.

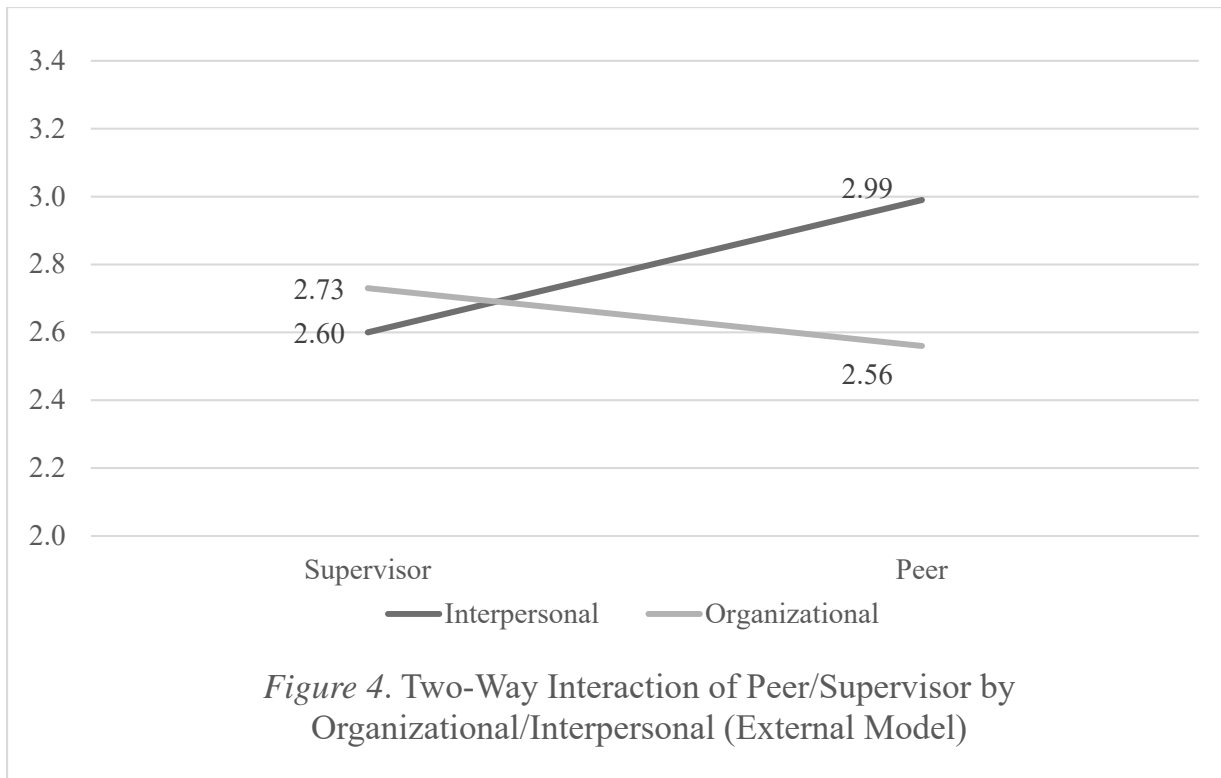
In examining results from the random coefficient model, the fixed effects can be interpreted as the average coefficient for each of the cues and the two-way interactions from the regression equation across all 58 participants. Table 5 contains these values for the external reporting option. In support of the overall hypothesis, all three cue main effects had significant effects on intentions to report. Based on the coefficients for the main effects, the peer/supervisor cue was in a positive direction which indicates that reporting intentions were higher for peers than for supervisors. However, similar to the internal reporting option, the other two cues had significant negative directions. For the organizational/interpersonal factor, this demonstrates that the organizational cue condition had significantly lower reporting intentions to internal agents than actions interpersonal in nature. In addition, the minor cue condition had significantly lower reporting intentions than the serious condition. The largest average coefficient was for the minor/serious cue ($B = -0.81$), followed by the organizational/interpersonal cue ($B = -0.07$), and then the peer/supervisor cue ($B = 0.06$).

Based on the regression weights, the organizational/interpersonal was not the largest predictor. Thus, this hypothesis was not supported. However, since all three two-way interactions were significant, the effect of the main cues cannot be accurately interpreted without examining these separately. Following the same procedures as outlined for the internal rating options, the three two-way interaction effects were broken down.

The two-way interaction effect of the peer/supervisor * organizational/interpersonal conditions was statistically significant ($B = -0.14$, $p = 0.00$) and the means were graphed (see

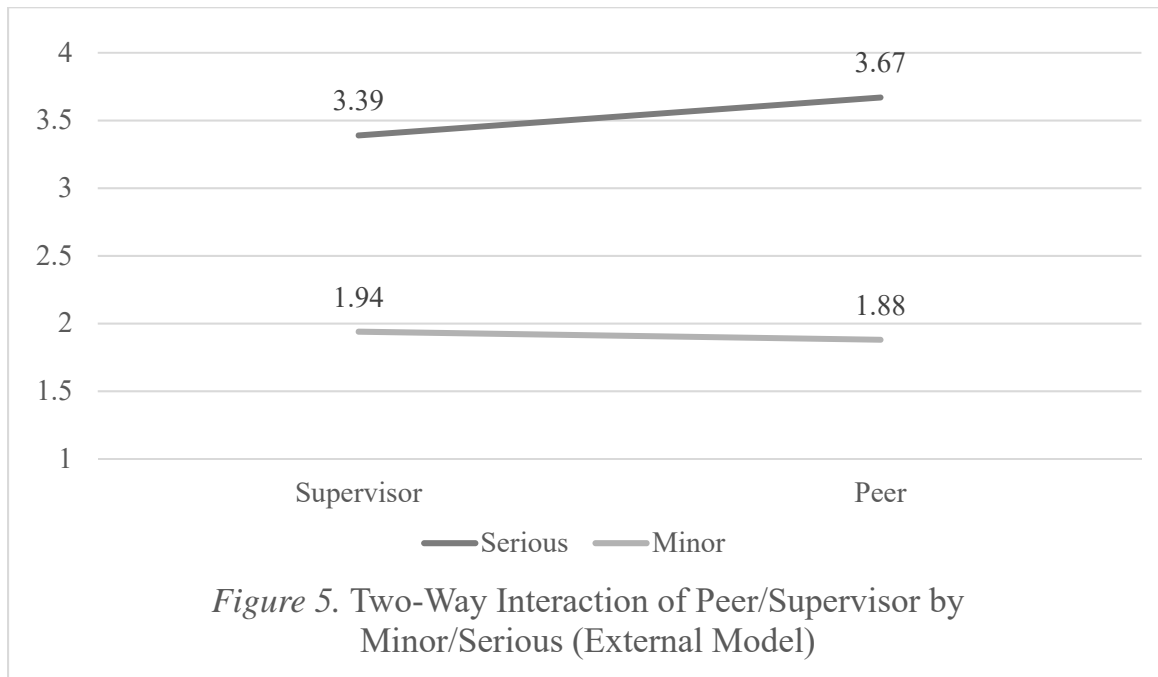
figure 4). The graph shows that organizational/interpersonal cue had a larger effect on external reporting in the peer condition than that depicted for the supervisor condition. To determine if these differences are significant the model was broken out by the peer/supervisor cue. The results of this analysis demonstrated that in the peer condition, the organizational/interpersonal cue was significant ($B = -0.21, p = 0.00$) such that the interpersonal condition showed significantly higher external option reporting intentions than the organizational condition. When examining the data for the supervisor condition, the interpersonal/organizational factor was not significant ($B = 0.06, p = 0.11$). Therefore, the organizational/interpersonal cue did not impact external reporting of supervisors.

In the examination of the interpersonal and organizational conditions separately, the peer/supervisor cue was significant for both interpersonal workplace infractions ($B = 0.19, p = 0.00$) as well as infractions organizationally-directed ($B = -0.08, p = 0.00$). Interestingly, the results show that supervisor reporting was significantly higher than peer reporting for organizational workplace infractions. However, for interpersonal infraction, the reporting intention for peers was higher than that of supervisors.



Next, the significant interaction of peer/supervisor * minor/serious conditions ($B = -0.08$, $p = 0.00$) was examined. Figure 5 depicts this interaction and shows that the minor/serious cue seems to have had a significant impact for both peers and supervisors. However, minor infraction reporting was more consistent across the peer/supervisor conditions. In analyzing this interaction, in the minor condition, the peer/supervisor cue was not significant ($B = -0.03$, $p = 0.28$). Therefore, when the infraction was minor, there was no difference in external reporting between reporting a supervisor versus a peer. On the other hand, when looking at the serious infractions, the peer/supervisor cue was significant ($B = 0.14$, $p = 0.00$) showing that external reporting intentions were higher for peers as compared to supervisors. In examining this interaction by the peer/supervisor category, the minor/serious cue manipulation was significant for both peers ($B = -0.89$, $p = 0.00$) and supervisors ($B = -0.73$, $p = 0.00$). The difference between the reporting of minor and serious infractions was larger in the peer condition than supervisor

condition but both were significant. Therefore, the serious/minor main effect was not affected by the interaction.



Finally, the significant two-way interaction of the minor/serious * organizational /interpersonal conditions was statistically significant ($B = 0.07, p = 0.00$). Figure 6 depicts the graph of this interaction. Minor infraction reporting was consistent across the organizational/interpersonal conditions; however, the seriousness of the infraction had a greater impact for interpersonal infractions as compared to those of an organizational nature. The results of this analysis demonstrated that in the minor condition, the organizational/interpersonal cue was not significant ($B = 0.00, p = 0.93$). Therefore, when the infraction was minor, there was no difference in external reporting between reporting an organizational infraction versus an interpersonal interaction. However, when looking at the serious infractions, the organizational/interpersonal cue was significant ($B = -0.15, p = 0.00$). The direction of this parameter shows that in serious conditions participants were more likely to report interpersonal violations than organizational infractions. In examining the interpersonal/organizational

conditions separately, both the minor/serious conditions were significant (interpersonal, $B = -0.88, p = 0.00$; organizational, $B = -.74, p = 0.00$).



In summary, the results of the external model were very similar to those of the internal model. The minor/serious cue again had the largest effect followed by the organizational/interpersonal condition and then the peer/supervisor condition. The directionality of the regression weights were the same as with the internal model demonstrating that serious infractions, those committed by peers, and interpersonal infractions were more likely to be reported. The results for this model were also relatively consistent to those of the internal model when examining the situational cue interactions. The organizational/interpersonal cue only had a significant effect in the peer condition such that interpersonal acts were more likely to be reported. In addition, the organizational/interpersonal cue only had an effect on reporting intentions in the serious conditions; again with interpersonal acts being more likely to be reported. Across the organizational/interpersonal conditions, serious infractions were more likely to be reported.

The results for the external model deviated from those seen in the internal model on the minor/serious by peer/supervisor interaction. This interaction was absent in the internal model. However, for the external model, there was no difference in the reporting intentions for supervisors and peers when the infraction was minor. However, if the infraction was serious, peers were more likely to be reported than supervisors. For both peers and supervisors, serious infractions were more likely to be reported than minor ones.

Level 2 Hypothesis Testing for the Two Rating Options and Additional Analyses

It was expected that the all three personality subfacets would predict variance in intentions to report beyond that explained by the within person cues. It was predicted that assertiveness and dutifulness would be positively related to reporting intentions, whereas, cooperation would be negatively related to reporting intentions.

Internal Model. The final random coefficients model with the random slopes for the three main cues was used as the base model and the level 2 personality factors were added. All three personality variables, as well as interactions, were entered into the equation simultaneously. The three-way and two way models were significantly better in fit (utilizing the LRT method) as compared to the base model. However, none of the interactions were significant so they were dropped from the model. The three personality subfacets were added simultaneously as main effects and the model was significantly better than base model. Results from the three main effects model is presented in Appendix BB. Taken together, the results demonstrate that the model partially supported hypothesis 2. The cooperation subfacet was a significant predictor of intentions to report and but was in the opposite direction as was predicted. Individuals high in cooperation had higher reporting intentions.

External Model. The final random coefficients model with the random slopes for two of the three main cues (e.g., organizational/interpersonal and minor/serious) was used as the base model. The personality subfacets were added to this base model as main effects as well as all interactions. The same strategy that was used for investigating personality characteristics in the internal model was used to test the external model. Initially the models containing the three-way and two-way interactions were developed. No significant interactions were found and were therefore dropped from the model. The model containing only the three personality subfacets as main effects was conducted. None of the subfacets were significant. To confirm these findings, each individual personality variable was added as a level 2 variable in a separate model. Again no significance was found. Results from the three main effects model is presented in Appendix CC. The findings did not support hypothesis two.

Additional Analyses for the Two Rating Options

The initial questionnaire to faculty members included several demographic items (see Appendix A). To potentially include the demographic items in the analyses, the responses for four of the five demographic items were each collapsed into two categories with more equal response sizes (see Appendix DD). The final category breakdowns included faculty: in teaching/research positions versus those in positions with administrative or other duties (58.6% vs. 41.4%), in the liberal arts, social sciences, and humanities versus those in physical sciences, business field, engineering, or more technical areas (53.4% vs. 46.5%), with 20 or less years of experiences versus those with more than 20 years in higher education (48.3% vs. 51.7%), and who were male versus female (58.6% vs. 41.4%). See Appendix DD for final demographic breakdowns to be included in analyses. The last demographic item that asked respondents to indicate all of the areas of higher education they participated in during the tenure was dropped

from analysis since all but three respondents indicated 4 or more categories. As additional investigative analyses, these were added into the final base model for each of the ratings as level 2 predictors.

Internal Model. The demographic items were analyzed as main effects at level 2. This model was not an improvement over the base model with the personality subfacets. None of the demographic items were statistically significant. The subfacet of cooperation was still significant after the inclusion of the main effects for the demographic variables.

External Model. Following the same procedures as outlined for the internal ratings model, demographics were added into the main external rating base model. This model was significantly better than the base model, and the demographic variables of primary area of higher education and educational area showed significant effects. Therefore, the final model was one that contained none of the personality subfacets but did contain two significant demographic items. Educational area was positive and primary area of higher education was negative indicating that faculty members from the humanities and those faculty currently in administrative positions were both more likely to report externally (see Appendix FF).

Chapter 5

Discussion

Utilizing the two antecedent categories contained in the Robinson and Bennett (1995) typology of deviance (e.g. seriousness, minor vs. serious and locus of aggression, behaviors organizationally directed vs. interpersonally directed) and including the factor of observer-perpetrator power differential, the current study examined the manner in which individuals use these situational cues when deciding to report offenders of workplace deviant acts. To date, studies examining workplace deviance reporting have primarily focused on examining a specific act within one relationship dynamic (e.g., theft by a peer; Victor et al., 1983) or looking at a specific act in the context of different relationship dyads with the perpetrator (e.g., discarding organizational documents by peers and supervisors, Taylor & Curtis, 2013). Only a few studies have examined having different reporting options available to the observer and these too have often limited the type/classification of the deviant acts included in the investigation (e.g., reporting channel choice based on perceptions of harm and organizational commitment; Chen and Lai, 2014). Finally, historically, a large portion of the published articles employed survey methodologies and were primarily descriptive in nature.

The current investigation examined reporting of workplace deviant acts more holistically by categorizing infractions based on dimensions in the Robinson and Bennett (1995) typology and two different perpetrator relationships (e.g., peer vs. supervisor). Additionally, respondents were asked about reporting intentions via two different avenues (e.g., internal vs. external). Utilizing the policy capturing technique, the three aforementioned situational cues were examined in combination with subfacets of the big five personality inventory. The identification of which subfacets to include was first based on previous research identifying three big five

characteristics and their relationship to reporting or reporting intentions (Brink et al., 2015; Bowling & Lyons, 2015). Then, for each of these dimensions, the subfacet chosen was based on previous studies which have shown a relationship between the subfacet and deviant behavior (Hastings & O'Neill, 2009) or because it is reasonable to assume that the subfacet could be related to the construct of reporting.

Main Findings: Situational Cues

The results showed that the three cue variables and their interactions led to significant reductions in error variance for both internal (48.2%) and external (52.3%) reporting intentions. This supported the first hypothesis that the three situational cues will affect intentions to report. The additional hypotheses related to the situational cues were not supported. For internal reporting, there was no interaction between the cues of seriousness and observer-perpetrator relationship as predicted. For external reporting, locus of aggression was not the largest predictor as was hypothesized.

When examining the main effects for the situational cues across the two rating options, directional consistency was shown such that participants were more likely to report peers, interpersonal infractions, and serious events. The seriousness of the infraction was by far the largest determinant of reporting intentions. Also, reporting intentions were higher with internal reporting channels than through external ones. Cue interactions were also found. When examining the peer/supervisor by interpersonal/organizational interaction, it was shown that the organizational/interpersonal cue was significant for peer reporting. Specifically, peers were significantly more likely to be reported when acts were of an interpersonal nature. However, the organizational/interpersonal cue was not significant for the reporting of supervisors. The similarity between the findings for the two rating options continued when breaking out the

organizational/interpersonal by minor/serious interaction. In both cases, when the infraction was minor, there was no difference between reporting in the organizational and interpersonal conditions. However, if the infraction was perceived as serious, interpersonal actions were more likely than organizational actions to be reported both internally and externally.

The two models differed when it came to the peer/supervisor by minor/serious interaction. This interaction was not significant for the internal ratings but was for the external ratings. When infractions were minor in nature, there was no difference in reporting of a peer versus a supervisor. However, when the infraction was serious, external reporting of peers was significantly more likely. Looking at the findings across the external interactions, the infraction had to be seen as serious for the reporting intention to be affected by the other situational cue in the interaction (i.e., minor/serious and organizational/interpersonal).

Main Findings: Personality Subfacets and Additional Demographic Analyses

The initial ICC showed that 17.2% of internal reporting intention and 22.5% of external reporting intention variance was between subjects. After initial model development with situational cues and interactions, the personality subfacets were added to the model to determine if their inclusion significantly impacted reporting intentions. The only support for the hypotheses related to personality subfacets was that cooperation was significant in the internal model. However, the results were in the opposite direction of what was hypothesized such that cooperative individuals were more likely to report than less cooperative individuals.

Additional analyses were conducted where demographic characteristics were included as level 2 variables for each reporting option. None of the demographic variables were significant when included in the main internal model. For the external reporting option, the primary area of responsibility and educational area were both significant predictors of external reporting. The

directionality of the findings demonstrated that people in humanities and social sciences (as compared to faculty in the physical sciences and technical areas) and administrative faculty (as compared to research / teaching faculty) were more likely to report workplace deviant infractions externally. This could be because reporting avenues for faculty are more clearly defined and have more possible reporting levels than faculty serving in administrator-type roles.

Additionally, a number of the vignettes were research-based scenarios. Therefore, science faculty might have more experience dealing with these types of infractions and know that the behavior could be appropriately handled internally.

Summary

The findings from this study both replicate and contradict some prior research. For example, when Lee et al. (2004) studied sexual harassment, they found that the level of the harasser was negatively related to whistleblowing such that supervisors were less likely to be reported. The current study showed support for this since higher reporting intentions were shown for the organizational infractions committed by supervisors as compared to the acts of an interpersonal nature. However, this study completely contradicted the meta-analysis findings of Mesmer-Magus and Viswesvaran's (2005) which found only a small relationship between seriousness and reporting behaviors or intentions. The current study showed that the seriousness factor was the most influential cue affecting reporting intentions.

As previously mentioned, this study is unique in that it utilized a policy capturing methodology where the seriousness of the offense was manipulated experimentally. A large number of previous investigations have focused primarily on survey research techniques. The use of the policy capturing technique allows for a more robust examination of reporting intentions since it helps overcome obstacles related to socially desirable responding (Karren &

Barringer, 2002). In addition, with policy capturing, the consistency in how people use information to form judgements and the importance they attribute to that information can be ascertained.

A narrative-type scenario format was used in the current study where each hypothetical scenario told a “story.” The wording of the cues was not repeated across scenarios. This narrative format was chosen over the traditional “cue articulation list,” where cues are simplistic statements repeated across scenarios, for several reasons. First, even though the purpose of policy capturing is to remove some of the participants’ subjective reaction to cues and to estimate a decision weight of these cues once they formed an impression, the narrative approach creates a much more realistic set of scenarios. When examining a topic like whistleblowing, the subjective perceptions of the infractions should be part of the weighting process and, thus, need to be part of the stimulus.

Second, the narrative approach in this type of investigation intuitively makes more sense. The alternative “cue articulation list” would amount to nothing more than bulleted lists of each factorial combination repeated four times. The goal of the current study was to examine a broader range of workplace deviant acts that fall within the typology developed by Robinson and Bennett (1995); not to just utilize the typology dimensions. Finally, Karren and Barringer (2002) state that when using hypothetical scenarios care should be taken to ensure the “variable levels and combinations are representative of those observed in their environment” (p. 347). In the current study, the use of the narrative scenario design enhanced the study and did not create any combination of cues that could not potentially exist in a higher education setting.

This study is also unique in that it utilized a typology of deviance (Robinson and Bennet, 1995) when developing scenarios to use in the investigation. The scenarios developed

corresponded to each of the four classifications identified in the typology. These four classifications were also the foundation for the levels of two of the situational cue antecedents (e.g., minor vs. serious and interpersonal vs. organizational). The scenarios presented a range of behaviors as opposed to one specific deviant act, thus being able to examine reporting across larger conceptual areas. In doing this, a broader understanding of workplace deviant act reporting can be established and thus, potentially be more applicable across many different organizational settings.

In relation to the personality variables included in the current study, previous studies have shown relationships between the Big Five personality dimensions and reporting intentions (Brink et al., 2015; Bowlings and Lyons, 2015). In addition, the subfacets of cooperation and dutifulness showed negative personality-deviance correlations (Hastings & O'Neill, 2009). However, the relationship between subfacets and reporting intentions has not been previously studied. Previous research advocated that when examining narrow criteria, narrow personality traits should be utilized as predictors. The results of a more recent study has called that into question (Steel, Schmidt, Bosco, and Uggerslev, 2019). This study revealed that facet level predictors added more to broader concepts than they did to those more narrow in scope (e.g., facet-level traits accounted for more variance in broad conceptual areas; Steel et al., 2019). Based on this information and the results of the previous studies on reporting intentions and deviance, it is possible that by using subfacets, personality was too narrowly defined. Facets might be important predictors for broader conceptualizations of workplace deviance but less so in the current design which specifically examined reporting intention.

Limitations

The current study presents some promising results which furthers the understanding of workplace deviance reporting. However, it does have limitations both due to the methodology utilized and the setting in which it was conducted. Two criticisms of policy capturing are that the results obtained are often limited by the perceived realism of scenarios and that the findings are not generalizable since the vignettes are only hypothetical situations. However, anecdotally, the investigator heard from several faculty suggesting that, to them, the scenarios were very realistic but no process was employed to examine this statistically. The perceived realism of the scenarios also suggests that the findings would potentially be generalizable to other settings.

A third limitation of the policy capturing methodology is that researchers are often limited by the number of cues that can be included due to the issues of fatigue, especially when studies are utilizing a full factorial design. This limitation was a concern for the present study since the target population was faculty members and administrators at institutions of higher education; therefore, the only three situational cues manipulated at two levels were included.

The utilization of higher education as the setting for the study potentially limited the number of participants that could be recruited. Faculty members were asked to participate and were not compensated for their time. Since the study was quite extensive, participation took a relatively long period of time and therefore, the sample size was smaller. This decreased the power for the level 2 analyses. Recruiting in an organizational setting, where employees are allotted time to respond, could lead to a much larger sample for analysis.

Although the higher education setting provides a new avenue of research not extensively examined in the literature, it presented problems when trying to operationalize the internal vs. external reporting options. The external reporting options for higher education can include those

external to the institution entirely or a different organizational unit separated from the faculty member's home department. Therefore, the difference between "internal" and "external" avenues might not be as clear. This type of reporting avenue distinction is likely clearer in an organizational setting since there is more of a definitive break between reporting within an organization and external to the organization. This may lead to very different models for these reporting options as opposed to the more consistent modeling demonstrated in this study.

Finally, another limitation of this study was that only two reporting options were examined. Several participants commented to the researcher that they wanted to have an additional option of confronting the perpetrator. It was suggested that the option of doing this initially prior to making a decision to report or not report should be included in future investigations.

Future Directions and Conclusion

The findings suggest that individuals' workplace deviant act reporting intentions are primarily situationally driven. Therefore, there is a need to examine other potential situational cues. However, in doing so, researchers would extend the time commitment for the study if they decided to use a full factorial design. Alternatively, to keep participation time at a minimum, researchers might need to employ the technique of random scenario selection to include additional situational cues. Future research also needs to include ways to examine the realism of the scenarios developed. This might be accomplished by doing a pilot study where realism is evaluated, having the scenarios developed by area experts, or by having participants give their impressions of realism at the conclusion of the investigation.

In the current study, higher education was the organizational unit of interest. Although in some ways the organizational structure in an institution of higher education is similar to that of a

private sector company, certain aspects of this setting are quite unique. For example, although power differentials among individuals still exist in higher education, the security of tenure provides teaching and research faculty with a level of protection that would not be seen in a typical, more traditional organizational setting. Additionally, the organizational climate in higher education is different than that often seen in other organizations. Institutions of higher education are proactive and hold workshops, training sessions, and other seminars addressing current concerns in the workplace. For example, many institutions hold workshops for employees regarding ways to identify and address inappropriate workplace interactions. In addition, institutions outwardly post policies related to the reporting of waste, theft, and fraud. Implementing a similar investigation utilizing the typology of deviance within a private sector organization would help determine if the findings in the academic setting generalize to more traditional organizations.

The current study utilized subfacets chosen from Big Five areas for inclusion in the study. However, for the most part, these were found not to be related to reporting intention. Based on more recent research findings, the subfacets might be too narrowly defined and researchers should opt to use the more broad overall personality characteristics. It might also be beneficial for researchers to choose certain clusters of personality subfacets to use in studies examining reporting intention.

Overall, the current study is a more comprehensive examination of reporting intentions in an experimental setting. Although the researcher was limited to the number of cues due to time constraints, the fully crossed design allowed for the examination of interactions which produced some interesting findings. The current study also showed that the typology with the addition of the peer/supervisor category provides a good foundation for predicting deviant act reporting in a

higher education setting. In addition, the study demonstrated that participants were more likely to make reporting determinations based on situational aspects pertaining to the event rather than individual characteristics playing a role in an individuals' intention to report.

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Appendices

Appendix A

Demographic Frequency Distributions for Main Study Participants

Currently, what is your primary role at your institution?	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Teaching faculty	28	48.3	48.3	48.3
Research faculty	5	8.6	8.6	56.9
Administration	18	31.0	31.0	87.9
Other (please specify)	7	12.1	12.1	100.0
Total	58	100.0	100.0	

Currently, what is your primary role at your institution? Other specified:

- Administrative and professional faculty
- Department head involved in teaching and research
- Instrument specialist: Provide support to students and faculty doing research
- Teaching, research and administration (2)
- Teaching / research
- Time split between teaching and administration

During your tenure in higher education, what areas have you participated? (Select all that apply)	<i>Frequency</i>	<i>Percent</i>
Teaching undergraduate or graduate students	57	98.3
Advising / mentoring students	57	98.3
Research activities	56	96.6
Administrative duties (Ex: Chair, Dean, Program Coordinator, etc.)	51	87.9
Professional consulting outside the university	33	56.9
Participating in institutional service activities	47	81.0

Other:

Active outside service/engagement activities	1	1.7
External professional service activities	1	1.7
Student affairs	1	1.7

What is your primary educational area? (If you are teaching or research faculty, please specify the field in which you teach or do research. If you work primarily in administration, please indicate the area in which you were trained.)

	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Agriculture	2	3.4	3.4	3.4
Architecture	1	1.7	1.7	5.2
Business	6	10.3	10.3	15.5
Education	4	6.9	6.9	22.4
Engineering	3	5.2	5.2	27.6
Fine Arts	3	5.2	5.2	32.8
Health Related Fields	1	1.7	1.7	34.5
Humanities	3	5.2	5.2	39.7
Liberal Arts	3	5.2	5.2	44.8
Natural Sciences	3	5.2	5.2	50.0
Physical or Biological Sciences	11	19.0	19.0	69.0
Social Sciences	13	22.4	22.4	91.4
Other (please specify)	5	8.6	8.6	100.0
Total	58	100.0	100.0	

What is your primary educational area? Other specified: Communication (1), Math and Statistics (1), Mathematical Science (1), Student Affairs (1), and Technology (1).

How many years have you been working in academia?

	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Less than five years	3	5.2	5.2	5.2
Five to ten years	4	6.9	6.9	12.1
Eleven to fifteen years	7	12.1	12.1	24.1
Sixteen to twenty years	14	24.1	24.1	48.3
More than 20 years	30	51.7	51.7	100.0
Total	58	100.0	100.0	

<i>Gender</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Male	34	58.6	58.6	58.6
Female	24	41.4	41.4	100.0
Total	58	100.0	100.0	

Appendix B

Initial Request for Participation

Dear Colleague,

I am writing to request your help. For those who know me personally, you might remember that I left graduate school many years ago when I was “all but dissertation” and unfortunately, never ended up finishing. About two years ago, I was offered the opportunity to recertify my coursework and begin the dissertation process. I completed three intensive coursework recertification questions and am now in the process of completing my dissertation for the PhD in Psychology with an Industrial and Organizational concentration.

The reason I am writing is that to complete the dissertation, I need faculty members and administrators to participate. The current study involves the completing of three questionnaires:

- A few demographic items regarding your current employment position/status,
- Personality items based on subfacets of the Big Five, and
- The reading of several scenarios regarding workplace infractions and your rating whether or not you would consider reporting each of the infractions.

Your responses will be completely anonymous and the entire study should only take you between 30 and 45 minutes. Although you will not be compensated, your participation in the study will be greatly appreciated.

The end of the study does contain a place for you to provide your contact information if you are interested in receiving study results. This information will not be connected to your responses. If you agree to participate, simply click on the Qualtrics link provided below. If you know of any colleagues that might also be willing to participate, please feel free to forward the link to them.
[LINK provided]

Thanks in advance.

Sincerely,
Bethany

Appendix C

Reminder Request for Participation

Dear Colleague,

Recently you should have received the email below regarding my dissertation study. If you took the time to complete it, I sincerely thank you.

If you have yet responded, I hope you would consider doing so. I still need several faculty members to participate before starting the data analyses.

If you would be willing to participate, simply click on the Qualtrics link below.

[LINK provided]

Sincerely,
Bethany

[Initial contact email was provided. See Appendix X.]

Appendix D

Informed Consent for Main Study

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in Research Projects Involving Human Subjects

Title of Project: Reporting of Workplace Infractions
Investigator(s): Bethany Bodo (bbodo@vt.edu / 231-6003); Neil Hauenstein
(nhauen@vt.edu / 231-5716)

I. Purpose of this Research Project: The current investigation was designed to study individuals' reporting intentions for several workplace infractions. The data obtained in this study will be used to complete requirements for a dissertation and may be used for publications or presentations. Approximately 45 faculty and administrators at institutions of higher education will be recruited.

II. Procedures: Should you agree to participate, you will be asked to complete three questionnaires via a Qualtrics online survey: a few demographic items regarding your current employment position/status, personality items based on subfacets of the Big Five, and the reading of several scenarios regarding workplace infractions and your rating whether or not you would consider reporting each of the infractions. Your responses will be completely anonymous and the entire study should only take you between 30 and 45 minutes.

III. Risks: Participation in this study involves no more than minimal risk. You will be responding to non-sensitive items via a web-based survey and are free to withdrawal at anytime.

IV. Benefits: Although there will be no direct benefits to you directly, your participation will help further the understanding of individuals' reporting intentions when witnessing infractions in the workplace.

V. Extent of Anonymity and Confidentiality: Your responses will be completely anonymous and the entire study should only take you between 30 and 45 minutes. The end of the study does contain a place for you to provide your contact information (first name and email address) if you are interested in receiving study results. This information will not be connected to your responses. All information will be stored on a password protected computer and be aggregated prior to release in any presentations or publications. The Virginia Tech (VT) Institutional Review Board (IRB) may view the study's data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation: You will not be compensated for participating in the study.

VII. Freedom to Withdraw: It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty.

VIII. Questions or Concerns: Should you have any questions about this study, you may contact

one of the research investigators whose contact information is included at the beginning of this document. Should you have any questions or concerns about the study's conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the Virginia Tech Institutional Review Board at irb@vt.edu or (540) 231-3732.

IX. Subject's Consent

The first question on the survey will ask you to indicate your consent to participate. Agreeing with this statement will enable you to participate in the study.

Appendix E

Scenarios for Pilot Study

Note: Scenarios chosen and altered for the main study are underlined.

Peer, Organizational Minor

#1: You and a tenured peer colleague in the department are co-principal investigators at the end of the first year of a large, multi-year grant. Your peer's contributions to the first year of the project do not warrant the teaching release time he/she has received. Your colleague is requesting the same buy-out for year two and the department is planning to use grant overhead monies to hire a part-time instructor to backfill his/her course.

#2: Your department maintains a large lab where faculty share equipment and materials. During the times you have been working in the lab with a peer you have noticed him/her being careless in their methodological procedures and wasting resources by using excessive amounts of expensive chemicals.

#3: You are on the department personnel and tenure (P&T) committee and committee conversations are confidential. Recently, you've heard multiple colleagues who are not on the P&T committee mentioning parts of these confidential conversations. When you ask these colleagues where they heard this information, they attribute the source to one specific peer colleague on the P&T committee.

#4: Every faculty member on campus is required to participate in university service activities. There are various committees for faculty to participate in including the development of university policies pertaining to software procurement, student initiatives, and resource allocations. Recently one of your peers has told you that she/he does not intend to participate in his/her assigned service activities.

#5: The program expects all faculty members to teach both graduate and undergraduate courses. It is expected that faculty will not cancel courses and will teach on the schedule determined by the department. Your office is in a hallway near one classroom and recently you noticed that the students are being let out early most days. You also notice the faculty member letting the students out early is one of your peers from the department.

#6: The department keeps its office supplies in cabinets in the faculty lounge. Over the course of the past semester, you have noticed a peer colleague taking excessive amounts of office supplies; more than this peer could ever need for her/his duties related to the job.

Supervisor, Organization, Minor

#1: You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with the department chair. Your chair's contributions to the first year of the project do not warrant the 15% buyout he/she has received. Your chair is requesting the same 15% buyout for year two and is planning to hire a part-time assistant to help with administrative duties.

#2: The chair of your department recently decided to personally clean-up the experimental lab space shared by the faculty and you have noticed him/her throwing away partially used containers of chemicals that could still be used in experiments.

#3: Departmental faculty are allotted a certain amount of travel money. If one faculty member does not use their allotted amount, the money can be reallocated to others. Several faculty in the department decide to attend the annual conference for their field. Although there is plenty of time to fly home the last day of the conference, the chair of the program decides to spend an additional night at the conference site. This costs the department several hundred dollars in travel money for the additional night at the hotel and food expenses.

#4: You have assisted the department chair with compiling the annual report for the department. You are going to the meeting where the chair will give an oral presentation summarizing the department's research productivity to the Dean and Provost. On the way to the meeting, the chair informs you that in the presentation he/she is going to include manuscripts that have not been accepted but are under review; thus falsely inflating the total publication count for the department.

#5: The chair of the program is expected to teach one course a year. Recently, the chair told you that she/he decided to use departmental funds to hire an instructor to teach the course so that she/he could have more free time.

#6: The chair of your program teaches one graduate course per semester. The course is offered every Monday from 1 to 4 and the classroom is very close to your office. For the past 5 or 6 weeks every time you have walked by the classroom you have noticed that the chair is showing films to the students instead of teaching and the films are not related to the topic or subject matter that is supposed to be covered in the course.

Peer, Organizational, Serious

#1: For the past two years, a peer has been working on a series of related empirical studies, with mixed success. Your colleague has sought advice from you on designing the experiments,

requested feedback on the experiment write-ups, and has shared data from a couple of the experiments with you. This peer has submitted a manuscript presenting the results of the studies to a top journal in the field and received a “revise and resubmit” from the editor. They have again requested your feedback on the revision. In reading the manuscript, you realize that the results reported from one of the studies does not fit with your recollections of the data and in checking the analyses you realize that your peer is most likely falsifying the results for that one study.

#2: A peer is hosting the annual year-end department picnic. You make a wrong turn exiting the bathroom and find yourself in the garage. You notice that on a shelf is an expensive piece of departmental equipment that was reported missing several months ago. Ultimately, the university’s loss prevention office was notified and the equipment was replaced using university funds.

#3: The university is in the process of selecting new student advising software for the entire institution. You are aware that a peer serving on the committee which decides which software to purchase has a financial stake in one of the vendors under consideration. Further, this peer is recommending the purchase of this software but has not disclosed her/his financial relationship with the vendor.

#4: Your department has spent a large portion of its equipment budget to fix a piece of technology. This has required the department to significantly cut-back on expenditures for other equipment and lab supplies. You remember that while working late one-day, you noticed a peer appeared to be intentionally damaging this expensive piece of equipment.

#5: You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with a tenured peer colleague in the department. In reviewing the travel budgets, you see that your peer has expensed a \$1,500 trip to the grant. In prior conversations with your grant colleague, he/she talked about that trip as personal travel to visit family and not project-related.

#6: The department has decided to send a large number of faculty to a conference that is being held at Disney. Because of the location, several faculty members have decided to extend their time at the resort and bring along their families. You find out that your peer colleague used a grant account to pay his/her family to travel and to extend their stay at the resort.

Supervisor, Organizational, Serious

#1: While working in the lab you notice your chair intentionally breaking an expensive piece of equipment beyond repair. The chair then used most of the department's equipment budget to replace the broken machine with the latest, more technologically advanced model.

#2: You are attending a conference and speaking with a vendor of equipment and supplies. During this conversation, the vendor mentions in passing that his/her company has employed your department chair as a consultant for many years. You are well aware that your department has purchased most of its equipment and supplies from this vendor, often at higher prices than competitors, and your department chair has never disclosed his/her consulting work with the vendor.

#3: The chair of your department sits on the university committee that allots extra monies to the research programs across the university. In the process of lobbying for the department to receive a significant amount of these funds, the chair has misrepresented current research activities in the department and falsifies documentation of departmental research expenses.

#4: You have been assisting the department chair in testing a new product for a private company. The company has repeatedly invited the department chair to company retreats at luxury resorts and, when visiting the department, the company has frequently treated the chair to expensive meals. In reading the final report, you realize that the data are presented in such a way that distorts the results of the research so as to conclude the product is more effective than it truly is.

#5: Your department wants to develop online versions of some of its foundational courses. The chair decides to buy the templates for all of these courses from a software company to which she/he has known connections. The chair requests extra money from the university to pay for these courses and does not reveal her/his connections with the company or the fact that she/he receives kickbacks when these courses are used.

#6: While attending the annual conference for your field, the chair of the program decides to take out several high-level executives of a software company for which he/she is lobbying to get a part-time consulting job. The chair buys dinner for several of the company's vice presidents at a very expensive restaurant and spends lavishly on after dinner entertainment. Later, you find out that the chair charged all of this to the department's travel budget.

Peer, Interpersonal, Minor

#1: Two faculty members in the department need to use a piece of research equipment in the lab to conduct their experiments. The lab operates on a first-come, first-serve basis. You become aware that one of your peer colleagues has recruited graduate students to pretend to use the

equipment so it can be held for this peer and the other colleague has been unable to use it for the past several weeks.

#2: While working with a peer on assigning incoming graduate students to faculty members, the colleague starts making fun of another faculty member in the department. This faculty member repeatedly conveys that any graduate student assigned to this particular faculty member will be limited in the types and complexity of research they can do because the faculty member mentoring them doesn't understand what he/she is doing.

#3: You overhear a conversation where a peer is making fun of a colleague's physical appearance and denigrating his/her research abilities.

#4: While in the lab with other faculty and graduate students, a peer tells you that he/she is going to play a practical joke on another colleague in the department. This colleague came in the lab a few minutes later and the chemical she/he was working with exploded in a puff of smoke covering the faculty member in a harmless cloud of dust. Only you know the identity of the practical joker.

#5: You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with two other tenured peer colleagues in the department. Over the course of the year, their relationship with each other has deteriorated due to disagreements on the project. Two faculty members have independently told you that one of your co-PIs has been disparaging the other co-PI, attacking both his/her professional capabilities and personal characteristics.

Supervisor, Interpersonal, Minor

#1: A large national grant is a point of pride for your department and for each of the faculty members participating. In fact, the project has caught the attention of both the provost and the president of the university. In a meeting you attend with the chair of the department, he/she is quick to bring up the project in front of high-level members of the administration. However, the chair only discusses the contributions and successes of one specific faculty member and does not mention the contributions of others.

#2: Your department chair holds monthly meetings for a grant project in which you, he/she, and another faculty member are co-PIs. Over the course of many meetings, the department chair has become increasingly rude during his/her interactions with this tenured colleague. The chair often ignores questions posed by this faculty member and makes fun of his/her comments and questions.

#3: At a department social event, the department chair is talking to you and one other colleague. You notice the chair is ignoring the other colleague, cuts this faculty member off mid-conversation, and, at one point, turns their back to the person and continues speaking to the other faculty.

#4: Your department has a strong reputation for innovative teaching and is in the process of developing online classes for some foundational courses. In a meeting one faculty member volunteers to develop a course that is in her/his area of expertise. The chair laughs and tells the faculty member no. Later you overhear the chair making disparaging comments about this faculty member's technical abilities and how primitive the online course would be if she/he let this faculty member do it.

#5: Recently you were speaking with a colleague in your program and this colleague tells you that the chair of the department is continuously choosing other faculty members for high profile courses and services activities that this colleague has requested and volunteered for. This colleague is clearly more qualified for these duties than the people being selected over him/her.

#6: Several times over the last semester while walking by the chairs office you have heard her/him verbally berating her/his graduate assistant.

Peer, Interpersonal, Serious

#1: Your department has a very successful and productive research lab where equipment and materials are shared by faculty members. One afternoon while in the lab you noticed one of your peers working on a piece of equipment they never use. Only one other colleague in the department actually uses this equipment. The following week your colleague was injured while using that equipment and the technician hired to repair it suspected it had been sabotaged.

#2: Shortly after a contentious faculty meeting, you come around the corner in the hallway and you witness a colleague threatening another colleague with physical violence.

#3: While in the mailroom for the department, out of the corner of your eye, you see a peer colleague taking money out of a wallet sitting on the counter. Later you hear from colleagues that a faculty member had money stolen when they accidentally left his/her wallet in the breakroom.

#4: At the annual department picnic, you notice that a colleague is frequently standing near and often touching the arm of a graduate student. The graduate student frequently moves among the guests, but your colleague always seems to be close by. Later, you catch a glimpse of your

colleague leading the graduate student away from the party to a more private location and the graduate student seems to be distressed.

#5: One of your peers and a junior faculty member have been working on a project together for some time. The findings of their studies are quite innovative. You find out that your tenured colleague has written an article based on the project the two faculty members have been working on together. However, this person has taken credit for the results and has not included the junior colleague on the article or even acknowledged his/her participation in the research.

#6: Your department has a strong reputation for innovative teaching and is in the process of developing online classes for some foundational courses. After a meeting where the assignment of courses was discussed, you see one of your peer colleagues and a junior faculty member discussing the assignments. You overhear the tenured colleague cursing at the junior faculty member because they were assigned the course that the tenured faculty member wanted. The faculty member threatens the junior colleague and tells him/her never to undermine her/him again in a faculty meeting or else.

Supervisor, Interpersonal, Serious

#1: You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with the department chair and an untenured faculty member. Over the course of the first year, the chair has worked less and less on the grant and has directed the untenured professor to take on more responsibilities. In the year two planning meeting, it was clear that the chair expected the junior faculty to continue to do the chair's work. In discussing upcoming research submissions the chair claimed credit for his/her assigned duties that were actually accomplished by the junior faculty member.

#2: You enter the photocopy room and find the department chair physically pressed up against a junior colleague. The department chair steps away when you enter the room, but the look on the junior colleague's face is clearly one of distress.

#3: You overhear the chair of your department talking to her/his administrative assistant. The chair is speaking very derogatorily about a junior member of your department. The chair declares that this faculty member will not be allowed to teach a high profile course for the department because of their accent even though this is the faculty member's area of expertise. The chair goes on to joke that because of the faculty member's nationality and accent, the students won't be able to understand what the faculty member is saying.

#4: A high-profile service committee at the university has made a number of new policies that benefit faculty across campus. The activities of this committee have gotten the attention of the

provost and president. Recently, you were in a meeting with the provost where your department chair took credit for contributions of the faculty member who sits on the committee.

#5: At the annual year-end department picnic a junior colleague discusses a novel research idea with you and the chair. A year later, the department chair has a sole author publication in a top journal premised on this novel idea. When you ask the junior faculty member about the chair's publication, he/she doesn't want to talk about it.

#6: The national conference in your field is very highly attended by researchers and grant funding agencies. A number of your colleagues in the department have decided to attend the conference. The chair even makes it a point to go. At the conference, the chair of your department hostilely confronts another faculty member in the program and verbally berates them about how poor their presentation was and how incompetent they feel this faculty member is.

Appendix F

Revised Scenarios for Main Study

Peer, Organizational Minor

Your department maintains a large lab where faculty share equipment and materials. During the times you have been working in the lab with a peer you have noticed him/her being careless in their methodological procedures and using excessive amounts of chemicals.

Every faculty member on campus is required to participate in university service activities. There are various committees for faculty to participate in including the development of university policies pertaining to software procurement, student initiatives, and resource allocations. Recently one of your peers has told you that she/he does not intend to participate in his/her assigned service activities.

The program expects all faculty members to teach both graduate and undergraduate courses. It is expected that faculty will not cancel courses and will teach on the schedule determined by the department. Your office is in a hallway near one classroom and recently you noticed students are being let out early at least one day per week. The faculty is one of your peers from the department.

The department keeps its office supplies in cabinets in the faculty lounge. Recently, you have noticed a peer colleague taking a large number of office supplies; more than this peer could ever need for her/his duties related to the job.

Supervisor, Organization, Minor

You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with the department chair. Your chair's contributions to the first year of the project do not warrant the small buyout he/she has received. Your chair is requesting the same, small percent buy-out for year two.

The chair of your department recently decided to personally clean-up the experimental lab space shared by the faculty and you have noticed him/her throwing away partially used containers of chemicals.

Departmental faculty are allotted a certain amount of travel money. If one faculty member does not use their allotted amount, the money can be reallocated to others. Several faculty in the department decide to attend the annual conference for their field. Although there is plenty of time

to fly home the last day of the conference, the chair of the program decides to spend an additional night at the conference site costing the department money.

You have assisted the department chair with compiling the annual report for the department. You are going to the meeting where the chair will give an oral presentation summarizing the department's research productivity. On the way to the meeting, the chair informs you that in the presentation he/she is going to include manuscripts submitted for publication; even if they have not been officially accepted.

Peer, Organizational, Serious

For the past two years, a peer has been working on a series of related empirical studies, with mixed success. Your colleague has sought advice from you on designing the experiments, requested feedback on the experiment write-ups, and has shared data from a couple of the experiments with you. This peer has submitted a manuscript presenting the results of the studies to a top journal in the field and received a "revise and resubmit" from the editor. They have again requested your feedback on the revision. In reading the manuscript, you realize that the results reported from one of the studies does not fit with your recollections of the data and in checking the analyses you realize that your peer is most likely falsifying the results for that one study.

Your department has spent a large portion of its equipment budget to fix a piece of technology. This has required the department to significantly cut-back on expenditures for other equipment and lab supplies. You remember that while working late one-day, you noticed a peer appeared to be intentionally damaging this expensive piece of equipment.

You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with a tenured peer colleague in the department. In reviewing the travel budgets, you see that your peer has expensed a \$3000 trip to the grant. In prior conversations with your grant colleague, he/she talked about that trip as personal travel to visit family and not project-related.

The department has decided to send a large number of faculty to a conference that is being held at Disney. You find out that your peer colleague used several thousand dollars from a grant account to pay his/her family to travel and to extend their stay at the resort.

Supervisor, Organizational, Serious

While working in the lab you notice your chair intentionally breaking a very expensive piece of equipment beyond repair. The chair then used most of the department's equipment budget to replace the broken machine with the latest, more technologically advanced model.

You are attending a conference and speaking with a vendor of equipment and supplies. During this conversation, the vendor mentions in passing that his/her company has employed your department chair as a consultant for many years. You are well aware that your department purchases all of its equipment and supplies from this vendor, often at higher prices than competitors, and your department chair has never disclosed his/her consulting work with the vendor.

The chair of your department sits on the university committee that allots extra monies to the research programs across the university. In the process of lobbying for the department to receive a significant amount of these funds, the chair has grossly misrepresented current research activities in the department and falsified documentation of departmental research expenses.

You have been assisting the department chair in testing a new product for a private company. The company has repeatedly invited the department chair to company retreats at luxury resorts and, when visiting the department, the company has frequently treated the chair to expensive meals. In reading the final report, you realize that the data are presented in such a way that distorts the results of the research so as to conclude the product is vastly more effective than it is.

Peer, Interpersonal, Minor

Two faculty members in the department need to use a piece of research equipment in the lab to conduct their experiments. The lab operates on a first-come, first-serve basis. You become aware that one of your peer colleagues has been pretending to use the equipment to hold it for a friend so the other colleague has been unable to use it for the past few days.

While working with a peer on assigning incoming graduate students to faculty members, the colleague starts making fun of another faculty member in the department and how his/her skills set is limited in terms of the types and complexity of research he/she can do.

While in the lab with other faculty and graduate students, a peer tells you that he/she is going to play a practical joke on a colleague in the department. This colleague came in the lab a few minutes later and the chemical she/he was working with exploded in a puff of smoke covering the faculty member in a harmless cloud of dust. Only you know the identity of the practical joker.

You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with two other tenured peer colleagues in the department. Two faculty members have independently told you that one of your co-PIs has been talking negatively about the other co-PI on both a personal and professional level.

Supervisor, Interpersonal, Minor

A large national grant is a point of pride for your department and for each of the faculty members participating. In meeting you attend with the chair of the department, he/she is quick to bring up the project. However, the chair only discusses the contributions and successes of one specific faculty member and does not mention the contributions of others.

Your department chair holds monthly meetings for a grant project in which you, he/she, and another faculty member are co-PIs. Over the course of many meetings, the department chair has become increasingly rude during his/her interactions with this tenured colleague.

At a department social event, the department chair is talking to you and one other colleague. You notice the chair is ignoring the other colleague and often cuts this faculty member off mid-conversation.

Recently you were speaking with a colleague in your program and this colleague tells you that the chair of the department ~~is~~ continuously chooses other faculty members for high profile courses and services activities that this colleague has requested and volunteered for.

Peer, Interpersonal, Serious

Your department has a very successful and productive research lab where equipment and materials are shared by faculty members. One afternoon while in the lab you noticed one of your peers working on a piece of equipment they never use. Only one other colleague in the department actually uses this equipment. The following week your colleague was seriously injured while using that equipment and the technician hired to repair it suspected it had been sabotaged.

Shortly after a contentious faculty meeting, you come around the corner in the hallway and you witness a colleague threatening another colleague with physical violence.

While in the mailroom for the department, out of the corner of your eye, you see a peer colleague taking money out of a wallet sitting on the counter. Later you hear from colleagues that a faculty member had money stolen when they accidentally left his/her wallet in the breakroom.

At the annual department picnic, you notice that a colleague is frequently standing near and often touching the arm of a graduate student. The graduate student frequently moves among the guests, but your colleague always seems to be close by. Later, you catch a glimpse of your colleague leading the graduate student away from the party to a more private location and the graduate student seems to be distressed.

Supervisor, Interpersonal, Serious

You are at the end of the first year of a large, multi-year grant, and you are co-principal investigator with the department chair and an untenured faculty member. Over the course of the first year, the chair has worked less and less on the grant and has directed the untenured professor to take on more responsibilities. In the year two planning meeting, it was clear that the chair expected the junior faculty to continue to do all the chair's work. In discussing upcoming research submissions the chair claimed credit for research and other accomplishments made by the junior faculty member.

You enter the photocopy room and find the department chair physically pressed up against a junior colleague. The department chair steps away when you enter the room, but the look on the junior colleague's face is clearly one of distress.

You overhear the chair of your department talking to her/his administrative assistant. The chair is speaking very derogatorily about a junior member of your department. The chair declares that this faculty member will not be allowed to teach a high profile course for the department because of their accent even though this is the faculty member's area of expertise. The chair goes on to joke that because of the faculty member's nationality and accent, the students won't be able to understand what the faculty member is saying. This is not the only time you have heard the chair speaking negatively about this faculty member's nationality.

At the annual year-end department picnic a junior colleague discusses a novel research idea with you and the chair. A year later, the department chair has a sole author publication in a top journal premised on this novel idea. When you ask the junior faculty member about the chair's publication, he/she doesn't want to talk about it.

Appendix G

Graduate School Listserv Pilot Study Recruitment Posting

The Graduate School at VT sends a notice to all VT graduate students every week regarding events, services, announcements, and jobs. Graduate students are allowed to post items to include in this listserv.

Posting would be:

Volunteers and research participants sought:

Volunteers sought to rate seriousness of several workplace infraction scenarios – 1st posting

Graduate student volunteers needed for a study rating the seriousness of workplace infraction scenarios. The study will should take less than 20 minutes to complete and involves each scenario and rating it on a scale from 1 (minor) to 5 (serious). The study is being done entirely online and your responses will be completely anonymous. If you would like to participate, simply click on the Qualtrics link provided below.

Appendix H

Pilot Study Recruitment Email

Dear Fellow Graduate Student,

I am writing to request your help. I am in the process of working on my dissertation and I need fellow graduate students to participate. The current study involves reading several scenarios regarding workplace infractions and rating how serious you believe each infraction to be on a scale from 1 (minor) to 5 (serious). Your responses will be completely anonymous and the entire study should take you 20 minutes or less to complete. Although you will not be compensated, your participation in the study will be greatly appreciated.

If you agree to participate, simply click on the Qualtrics link provided below. If you know of any colleagues that might also be willing to participate, please feel free to forward the link to them.

Thanks in advance.

Sincerely,

Bethany Bodo

I/O Psychology PhD Candidate

Appendix I

Informed Consent for Pilot Study

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in Research Projects Involving Human Subjects

Title of Project: Seriousness of Workplace Infractions

Investigator(s): Bethany Bodo (bbodo@vt.edu / 231-6003); Neil Hauenstein (nhauen@vt.edu / 231-5716)

I. Purpose of this Research Project: The current investigation was designed to determine the seriousness of several workplace infractions. The data obtained in this study will be used to complete requirements for a dissertation and may be used for publications or presentations. Approximately 25 graduate students at Virginia Tech will be recruited to participate in this study.

II. Procedures: Should you agree to participate, you will be asked to read several scenarios regarding workplace infractions and rate each on how serious you believe the infraction to be. Your responses will be completely anonymous and the entire study should only take you about 20 minutes or so to complete.

III. Risks: Participation in this study involves no more than minimal risk. You will be responding to non-sensitive items via a web-based survey and are free to withdrawal at anytime.

IV. Benefits: Although there will be no direct benefits to you directly, your participation will help further the understanding of individuals' perceptions of seriousness of specific workplace infractions.

V. Extent of Anonymity and Confidentiality: Your responses will be completely anonymous and the entire study should only take you approximately 20 minutes to complete. All information will be stored on a password protected computer and be aggregated prior to release in any presentations or publications. The Virginia Tech (VT) Institutional Review Board (IRB) may view the study's data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation: You will not be compensated for participating in the study.

VII. Freedom to Withdraw: It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty.

VIII. Questions or Concerns: Should you have any questions about this study, you may contact one of the research investigators whose contact information is included at the beginning of this document. Should you have any questions or concerns about the study's conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the Virginia Tech Institutional Review Board at irb@vt.edu or (540) 231-3732.

IX. Subject's Consent

The first question on the survey will ask you to indicate your consent to participate. Agreeing with this statement will enable you to participate in the study.

Appendix J

Response Scales for Pilot and Main Study

For each of the scenarios presented pilot study participants will be asked to provide one rating:

Pilot Subjects would rate: How serious is the infraction described in the scenario?

1	2	3	4	5
Minor				Serious

For each of the scenarios presented, main study participants will be asked to provide two ratings:

For the following response items, “report” indicates you would file a formal complaint or notification with some expectation that person to which you reported the behavior would follow-up on the incident.

How likely would you be to report the described incident to someone in a supervisory role internal to the college (e.g., department chair, associate dean, dean, etc.)?

1	2	3	4	5
Would Not Report	Unlikely to Report	Would Possibly Report	Likely to Report	Would Definitely Report

How likely would you be to report the described incident to someone in an authority role external to the college (e.g., human resources, professional organization, legal, institutional research board, sponsored programs office, etc.)?

1	2	3	4	5
Would Not Report	Unlikely to Report	Would Possibly Report	Likely to Report	Would Definitely Report

Appendix K

Pilot Study Demographic Items

Currently, I am enrolled as a...

- Part-time graduate student
- Full-time graduate student
- I am not enrolled in graduate school

Gender

- Male
- Female
- Prefer to Self-Describe: _____
- Prefer Not to Respond

Please give your age in years: _____

Appendix L

Mean, Standard Deviations, and RWGs for Selected Study Scenarios

Factor Categories and Scenario Number (x)	<i>Mean</i>	<i>Standard Dev</i>	<i>rWG</i>
Peer / Organizational / Minor (2)	2.56	0.92	0.58
Peer / Organizational / Minor (4)	2.44	1.08	0.41
Peer / Organizational / Minor (5)	2.08	0.91	0.59
Peer / Organizational / Minor (6)	2.44	0.87	0.62
Supervisor / Organizational / Minor (1)	3.24	1.05	0.45
Supervisor / Organizational / Minor (2)	2.56	1.23	0.25
Supervisor / Organizational / Minor (3)	2.64	1.08	0.42
Supervisor / Organizational / Minor (4)	3.28	1.02	0.48
Peer / Organizational / Serious (1)	4.84	0.37	0.93
Peer / Organizational / Serious (4)	4.52	0.51	0.87
Peer / Organizational / Serious (5)	4.40	0.65	0.79
Peer / Organizational / Serious (6)	4.28	0.89	0.60
Supervisor / Organizational / Serious (1)	4.40	0.65	0.79
Supervisor / Organizational / Serious (3)	4.24	0.78	0.70
Supervisor / Organizational / Serious (4)	4.32	0.85	0.64
Supervisor / Organizational / Serious (6)	4.16	0.90	0.60
Peer / Interpersonal / Minor (1)	3.48	0.92	0.58
Peer / Interpersonal / Minor (2)	3.20	1.12	0.38
Peer / Interpersonal / Minor (4)	2.44	1.23	0.25
Peer / Interpersonal / Minor (6)	3.08	1.08	0.42
Supervisor / Interpersonal / Minor (1)	2.84	1.11	0.39
Supervisor / Interpersonal / Minor (3)	2.68	1.03	0.47
Supervisor / Interpersonal / Minor (4)	3.52	1.12	0.37
Supervisor / Interpersonal / Minor (5)	3.24	0.93	0.57
Peer / Interpersonal / Serious (1)	4.48	0.77	0.70
Peer / Interpersonal / Serious (2)	4.88	0.33	0.95
Peer / Interpersonal / Serious (3)	4.68	0.56	0.84
Peer / Interpersonal / Serious (4)	4.84	0.47	0.89
Supervisor / Interpersonal / Serious (1)	3.84	0.80	0.68
Supervisor / Interpersonal / Serious (2)	4.84	0.47	0.89
Supervisor / Interpersonal / Serious (3)*	4.21	1.02	0.48
Supervisor / Interpersonal / Serious (5)	4.40	0.87	0.63

*Note: Final sample included 25 respondents for all scenarios except for the one indicated which contained 24.

Appendix M

Personality Subfacet Scale Items: Assertiveness, Cooperation, and Dutifulness

For each of the items below:

“Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence.

Indicate for each statement whether it is 1. Very Inaccurate, 2. Moderately Inaccurate, 3. Neither Accurate Nor Inaccurate, 4. Moderately Accurate, or 5. Very Accurate as a description of you.”
 (“Administering IPIP Measures”, n.d., para.10)

	Very Inaccurate (1)	Moderately Inaccurate (2)	Neither Inaccurate nor Accurate (3)	Moderately Accurate (4)	Very Accurate (5)
Extroversion: Assertiveness Subfacet					
Take charge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Try to lead others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can talk others into doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seek to influence others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take control of things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wait for others to lead the way (reversed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep in the background (reversed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have little to say (reversed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't like to draw attention to myself (reversed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hold back my opinions (reversed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agreeableness: Cooperation Subfacet					
Am easy to satisfy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Can't stand confrontations	0	0	0	0	0
Hate to seem pushy	0	0	0	0	0
Have a sharp tongue	0	0	0	0	0
(reversed)					
Contradict others	0	0	0	0	0
(reversed)					
Love a good fight	0	0	0	0	0
(reversed)					
Yell at people (reversed)	0	0	0	0	0
Insult people (reversed)	0	0	0	0	0
Get back at others	0	0	0	0	0
(reversed)					
Hold a grudge (reversed)	0	0	0	0	0

Conscientiousness: Dutifulness Subfacet

Try to follow the rules	0	0	0	0	0
Keep my promises	0	0	0	0	0
Pay my bills on time	0	0	0	0	0
Tell the truth	0	0	0	0	0
Listen to my conscience	0	0	0	0	0
Break rules (reversed)	0	0	0	0	0
Break my promises	0	0	0	0	0
(reversed)					
Get other to do my duties	0	0	0	0	0
(reversed)					
Do the opposite of what is asked (reversed)	0	0	0	0	0
Misrepresent the facts	0	0	0	0	0
(reversed)					

To obtain a total score on each subfacet, all values are summed.

Items obtained from: "The Items in Each of the Preliminary IPIP Scales" n.d.

Appendix N

Main Study Demographic Items

Currently, what is your primary role at your institution?

- Teaching faculty
- Research faculty
- Administration
- Other (please specify): _____

During your tenure in higher education, what areas have you participated in? (Select all that apply)

- Teaching undergraduate or graduate students
- Advising/mentoring students
- Research activities
- Administrative duties (ex. chair, dean, program coordinator, etc.)
- Professional consulting outside the university
- Participating in institutional service activities

What is your primary educational area? (If you are teaching or research faculty please specify the field you in which you teach or do research. If you work primarily in administration, please indicate the area in which you were trained.)

- | | | |
|---|---|---------------------------------------|
| <input type="radio"/> Agriculture | <input type="radio"/> Architecture | <input type="radio"/> Business |
| <input type="radio"/> Education | <input type="radio"/> Engineering | <input type="radio"/> Fine Arts |
| <input type="radio"/> Health-Related Fields | <input type="radio"/> Humanities | <input type="radio"/> Liberal Arts |
| <input type="radio"/> Natural Sciences | <input type="radio"/> Physical or Biological Sciences | <input type="radio"/> Social Sciences |
| <input type="radio"/> Other (please specify): _____ | | |

How many years have you been working in academia?

- Less than five years
- Five to ten years
- Eleven to fifteen years
- Sixteen to twenty years
- More than twenty years

Gender

- Male
- Female
- Prefer to Self-Describe: _____
- Prefer Not to Respond

Appendix O

Personality Subfacet Statistics

Subfacet	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Std. Deviation</i>	<i>Range</i>	<i>Minimum</i>	<i>Maximum</i>
Assertiveness	58	36.64	37.00	5.03	23.00	23.00	46.00
Cooperation	58	38.48	39.00	4.91	24.00	25.00	49.00
Dutifulness	58	45.60	47.00	4.15	19.00	31.00	50.00

Appendix P

Random Intercept Model for Internal Ratings with Three-way Interaction: Restricted Maximum Likelihood Estimation

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	3.57	0.08	.00
Peer/Supervisor Cue (PS)	0.16	0.02	.00
Organizational/Interpersonal Cue (OI)	-0.05	0.02	.02
Minor/Serious Cue (MS)	-0.73	0.02	.00
Interaction: PS * OI	-0.09	0.02	.00
Interaction: PS * MS	0.02	0.02	.36
Interaction: OI * MS	0.06	0.02	.01
Interaction: PS * OI * MS	-0.01	0.02	.94

Appendix Q

Model Comparison Table: Restricted Maximum Likelihood Estimation (Internal Ratings)

Model	<i>Number of Parameters in Model</i>	<i>-2 Restricted Log Likelihood</i>	<i>Akaike's Information Criterion</i>	<i>Schwarz's Bayesian Criterion</i>
Null Model	3	5993.29	5997.29	6008.34
Random Intercept: All Interactions	10	5028.59	5032.59	5043.63
Random Intercept: Main Effects and Two-Way Interactions	9	5022.67	5026.67	5037.72
Random Slope Testing				
Peer/Supervisor (PS) ^{1,3}	11	5016.45	5024.45	5046.54
Organizational/Interpersonal (OI)	11	5004.24	5012.24	5034.33
Minor/Serious (MS)	11	4978.66	4986.66	5008.75
Interaction: PS x OI ^{1,2}	11	5021.34	5029.34	5051.43
Interaction: PS x MS ^{2,5}	11	5021.03	5029.03	5051.12
Interaction: OI x MS ¹	11	5018.17	5026.17	5048.26
Final Random Coefficients Model: Random Slopes for PS, OI, and MS	18	4945.18	4967.18	5027.93
Level 2 Models				
Three Main Effect Personality: Cooperation significant	21	4956.23	4978.23	5038.95
Additional Analyses for Level 2				
Demographic Items with Personality Subfacets: Gender, Primary Area, Education Area, and Years ⁶	25	4963.10	4985.10	5045.81
Final model: Random Coefficient Model plus Three Main Effect Personality Subfacets ⁶	21	4956.23	4978.23	5038.95

¹Non-significant / ²Model Failed to Converge / ³Model better than previous base model / ⁴Model not better than previous base model / ⁵Redundant parameter / ⁶Cooperation significant

Appendix R

Model Comparison Table: Maximum Likelihood Estimation (Internal Ratings)

Model	<i>Number of Parameters in Model</i>	<i>-2 Restricted Log Likelihood</i>	<i>Akaike's Information Criterion</i>	<i>Schwarz's Bayesian Criterion</i>
Null Model	3	5989.95	5995.95	6012.53
Random Intercept: All Interactions	10	4983.81	5003.81	5059.08
Random Intercept: Main Effects and Two-Way Interactions	9	4983.82	5001.82	5051.26
Random Slope Testing				
Peer/Supervisor (PS) ^{1,3}	11	4977.80	4999.80	5060.58
Organizational/Interpersonal (OI)	11	4965.71	4987.71	5048.49
Minor/Serious (MS)	11	4940.34	4962.34	5023.13
Interaction: PS x OI ^{1, 2}	11	4982.50	5004.50	5065.28
Interaction: PS x MS ^{2,5}	11	4982.17	5004.17	5075.96
Interaction: OI x MS ¹	11	4979.34	5001.34	5062.16
Final Random Coefficients Model: Random Slopes for PS, OI, and MS	18	4907.46	4943.46	5042.93
Level 2 Models				
Three Main Effect Personality: Cooperation significant	21	4898.10	4940.10	5056.15
Additional Analyses for Level 2				
Demographic Items with Personality Subfacets: Gender, Primary Area, Education Area, and Years ⁶	25	4896.10	4946.10	5084.25
Final model: Random Coefficient Model plus Three Main Effect Personality Subfacets ⁶	21	4898.10	4940.10	5056.15

¹Non-significant / ²Model Failed to Converge / ³ Model better than previous base model / ⁴ Model not better than previous base model / ⁵ Redundant parameter / ⁶ Cooperation significant

Appendix S

Random Intercept Model for Internal Ratings with Two-Way Interactions: Restricted Maximum Likelihood Estimation

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>	
Intercept	3.57	0.08	0.00	
Peer/Supervisor Cue (PS)	0.16	0.02	0.00	
Organizational/Interpersonal Cue (OI)	-0.05	0.02	0.02	
Minor/Serious Cue (MS)	-0.73	0.02	0.00	
Interaction: PS * OI	-0.09	0.02	0.00	
Interaction: PS * MS	0.02	0.02	0.36	
Interaction: OI * MS	0.06	0.02	0.01	

Estimates of Covariance Parameters		<i>B</i>	<i>SE B</i>	Wald Z	<i>p</i>
Residual		0.79	0.03	29.93	0.00
Intercept	Variance	0.31	0.06	4.94	0.00

Appendix T

Random Slope Testing: Internal Ratings (REML Estimation)

Random Slope Testing	Parameter	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>
Intercept + PS ¹	Residual	0.78	0.03	29.45	0.00
	UN (1,1)	0.31	0.06	4.94	0.00
	UN (2,1)	-0.02	0.01	-1.61	0.11
	UN (2,2)**	0.01	0.01	1.50	0.13
Intercept + OI	Residual	0.77	0.03	29.45	0.00
	UN (1,1)	0.31	0.06	4.95	0.00
	UN (2,1)	0.04	0.02	2.38	0.02
	UN (2,2)**	0.02	0.01	2.38	0.02
Intercept + MS	Residual	0.75	0.03	29.45	0.00
	UN (1,1)	0.31	0.06	4.96	0.00
	UN (2,1)	0.05	0.02	2.48	0.01
	UN (2,2)**	0.04	0.01	3.33	0.00
Interaction: PS x OI ^{1,2}	Residual	0.79	0.03	29.50	0.00
	UN (1,1)	0.31	0.06	4.94	0.00
	UN (2,1)	-0.01	0.01	-1.15	0.25
	UN (2,2)**	0.00	0.01	0.13	0.89
Interaction: PS x MS ^{2, b}	Residual	0.79	0.03	29.99	0.00
	UN (1,1)	0.31	0.06	4.87	0.00
	UN (2,1)	0.02	0.01	1.58	0.12
	UN (2,2)**	0.00 ^b	0.00	.	.
Interaction: OI x MS ¹	Residual	0.79	0.03	29.45	0.00
	UN (1,1)	0.31	0.06	4.94	0.00
	UN (2,1)	-0.02	0.01	-1.86	0.06
	UN (2,2)**	0.00	0.01	0.75	0.45

¹Non-significant / ²Model Failed to Converge

** Slope variance parameters are represented by UN (2, 2)

^bCovariance parameter is redundant; test statistics and confidence interval cannot be computed.

Appendix U

Random Intercept and Slope Model for Internal Ratings (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	3.57	0.08	0.00
Peer/Supervisor Cue (PS)	0.16	0.02	0.00
Organizational/Interpersonal Cue (OI)	-0.05	0.03	0.07
Minor/Serious Cue (MS)	-0.73	0.03	0.00
Interaction: PS * OI	-0.09	0.02	0.00
Interaction: PS * MS	0.02	0.02	0.34
Interaction: OI * MS	0.06	0.02	0.00

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>	
Residual	0.72	0.03	28.47	0.00	
Intercept + PS + OI + MS	UN (1,1)	0.31	0.06	4.98	0.00
	UN (2,1)	-0.02	0.01	-1.61	0.11
	UN (2,2)	0.01	0.01	1.82	0.07
	UN (3,1)	0.04	0.02	2.38	0.02
	UN (3,2)	0.00	0.01	0.41	0.68
	UN (3,3)	0.02	0.01	2.59	0.01
	UN (4,1)	0.05	0.02	2.48	0.01
	UN (4,2)	-0.01	0.01	-2.05	0.04
	UN (4,3)	0.00	0.01	0.41	0.68
	UN (4,4)	0.04	0.01	3.42	0.00

Appendix V

Random Intercept Model for External Ratings with Three-Way Interaction: Restricted Maximum Likelihood Estimation

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	2.72	0.09	0.00
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.02	0.00
Minor/Serious Cue (MS)	-0.81	0.02	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00
Interaction: PS * OI * MS	0.01	0.02	0.74

Appendix W

Model Comparison Table: Restricted Maximum Likelihood Estimation (External Ratings)

Model	<i>Number of Parameters in Model</i>	<i>-2 Restricted Log Likelihood</i>	<i>Akaike's Information Criterion</i>	<i>Schwarz's Bayesian Criterion</i>
Null Model	3	6198.14	6202.14	6213.19
Random Intercept: All Interactions	10	5100.13	5104.13	5155.18
Random Intercept: Main Effects and Two-Way Interactions	9	5094.35	5098.35	5109.40
Random Slope Testing				
Peer/Supervisor (PS) ^{1,2,4}	11	5091.20	5099.20	5121.29
Organizational/Interpersonal (OI) ^{1,3}	11	5087.17	5095.17	5117.26
Minor/Serious (MS)	11	5001.67	5009.67	5031.76
Interaction: PS x OI ^{2,5}	11	5093.95	5101.95	5124.04
Interaction: PS x MS ^{2,5}	11	5093.90	5101.90	5123.98
Interaction: OI x MS ¹	11	5092.60	5100.60	5122.69
Final Random Coefficients Model: Random Slopes for OI and MS	14	4991.19	5005.19	5043.84
Level 2 Models				
Three Main Effect Personality ¹	17	5005.22	5019.22	5057.86
Additional Analyses for Level 2				
Demographic Items: Gender, Primary Area ⁶ , Education Area ⁶ , and Years	18	4987.43	5001.43	5040.07
Final Random Coefficients Model: Random Slopes for OI and MS with Demographics at Level 2	18	4987.43	5001.43	5040.07

¹Non-significant / ²Model Failed to Converge / ³Model better than previous base model / ⁴Model is not better than base model / ⁵Redundant parameter / ⁶Significant demographics

Appendix X

Model Comparison Table Utilizing Maximum Likelihood Estimation (External Ratings)

Model	<i>Number of Parameters in Model</i>	<i>-2 Restricted Log Likelihood</i>	<i>Akaike's Information Criterion</i>	<i>Schwarz's Bayesian Criterion</i>
Null Model	3	6195.20	6201.20	6217.78
Random Intercept: All Interactions	10	5055.95	5075.95	5131.21
Random Intercept: Main Effects and Two-Way Interactions	9	5056.06	5074.06	5123.80
Random Slope Testing				
Peer/Supervisor (PS) ^{1,2,4}	11	5052.91	5074.91	5135.70
Organizational/Interpersonal (OI) ^{1,3}	11	5049.17	5071.17	5131.95
Minor/Serious (MS)	11	4964.16	4986.16	5057.95
Interaction: PS x OI ^{2,5}	11	5055.66	5077.66	5138.45
Interaction: PS x MS ^{2,5}	11	5055.61	5077.76	5138.40
Interaction: OI x MS ¹	11	5054.32	5076.32	5137.10
Final Random Coefficients Model: Random Slopes for OI and MS	14	4954.06	4982.06	5059.43
Level 2 Models				
Three Main Effect Personality ¹	17	4949.81	4983.81	5077.76
Additional Analyses for Level 2				
Demographic Items: Gender, Primary Area ⁶ , Education Area ⁶ , and Years	18	4943.17	4979.17	5078.64
Final Random Coefficients Model: Random Slopes for OI and MS with Demographics at Level 2	18	4943.17	4979.17	5078.64

¹Non-significant / ²Model Failed to Converge / ³Model better than previous base model / ⁴Model is not better than base model / ⁵Redundant parameter / ⁶Significant demographics

Appendix Y

Random Intercept Model for External Ratings with Two-way Interaction: Restricted Maximum

Likelihood Estimation

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	2.72	0.09	0.00
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.02	0.00
Minor/Serious Cue (MS)	-0.81	0.02	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>
Residual	0.82	0.03	29.93	0.00
Intercept Variance	0.47	0.09	5.06	0.00

Appendix Z

Random Slope Testing: External Ratings (REML Estimation)

Random Slope Testing	Parameter	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>
Intercept + PS ^{1,2}	Residual	0.81	0.03	29.57	0.00
	UN (1,1)	0.47	0.09	5.07	0.00
	UN (2,1)	-0.03	0.02	-1.72	0.09
	UN (2,2)**	0.00	0.01	0.31	0.76
Intercept + OI ¹	Residual	0.80	0.03	29.45	0.00
	UN (1,1)	0.47	0.09	5.07	0.00
	UN (2,1)	0.02	0.02	1.24	0.22
	UN (2,2)**	0.01	0.01	1.82	0.07
Intercept + MS	Residual	0.07	0.02	4.05	0.00
	UN (1,1)	0.47	0.09	5.09	0.00
	UN (2,1)	-0.05	0.03	-1.7	0.09
	UN (2,2)	0.07	0.02	4.05	0.00
Interaction: PS x OI ^b	Residual	0.82	0.03	29.96	0.00
	UN (1,1)	0.47	0.09	5.06	0.00
	UN (2,1)	-0.01	0.02	-0.72	0.47
	UN (2,2)**	0.00 ^b	0.00	.	.
Interaction: PS x MS ^b	Residual	0.82	0.03	29.95	0.00
	UN (1,1)	0.47	0.09	5.02	0.00
	UN (2,1)	0.02	0.02	0.98	0.33
	UN (2,2)**	0.00 ^b	0.00	.	.
Interaction: OI x MS ¹	Residual	0.82	0.03	29.45	0.00
	UN (1,1)	0.47	0.09	5.06	0.00
	UN (2,1)	-0.02	0.02	-1.27	0.21
	UN (2,2)**	0.00	0.01	0.28	0.78

¹Non-significant / ²Model Failed to Converge

** Slope variance parameters are represented by UN (2,2)

^b SPSS note: This covariance parameter is redundant. The test statistics and confidence interval cannot be computed.

Appendix AA

Random Intercept and Slope Model for External Ratings (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	2.72	0.09	0.00
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.03	0.01
Minor/Serious Cue (MS)	-0.81	0.04	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>	
Residual	0.73	0.03	28.97	0.00	
Intercept + OI + MS	UN (1,1)	0.47	0.09	5.09	0.00
	UN (2,1)	0.02	0.02	1.24	0.22
	UN (2,2)	0.02	0.01	2.16	0.03
	UN (3,1)	-0.05	0.03	-1.70	0.09
	UN (3,2)	-0.00	0.01	-0.17	0.87
	UN (3,3)	0.07	0.02	4.07	0.00

Appendix BB

Personality Model for Internal Ratings: Three Main Subfacets (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	0.96	0.95	0.32
Peer/Supervisor Cue (PS)	0.16	0.02	0.00
Organizational/Interpersonal Cue (OI)	-0.05	0.03	0.07
Minor/Serious Cue (MS)	-0.73	0.03	0.0
Interaction: PS * OI	-0.09	0.02	0.00
Interaction: PS * MS	0.02	0.02	0.34
Interaction: OI * MS	0.06	0.02	0.00
Assert	0.02	0.02	0.15
Cooperation	0.03	0.02	0.02
Dutifulness	0.01	0.02	0.43

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>
Residual	0.72	0.03	28.47	0.00
Intercept + PS + OI + MS				
UN (1,1)	0.29	0.06	4.85	0.00
UN (2,1)	-0.02	0.01	-1.60	0.11
UN (2,2)	0.01	0.01	1.82	0.07
UN (3,1)	0.04	0.02	2.52	0.01
UN (3,2)	0.00	0.01	0.41	0.68
UN (3,3)	0.02	0.01	2.59	0.01
UN (4,1)	0.05	0.02	2.59	0.01
UN (4,2)	-0.01	0.01	-2.05	0.04
UN (4,3)	0.00	0.01	0.41	0.68
UN (4,4)	0.04	0.01	3.42	0.00

Appendix CC

Personality Model for External Ratings: Three Main Subfacets (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	1.46	1.33	0.28
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.03	0.01
Minor/Serious Cue (MS)	-0.81	0.04	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00
Assert	0.02	0.02	0.10
Cooperation	0.04	0.02	0.08
Dutifulness	-0.02	0.02	0.35

Estimates of Covariance Parameters		<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>
Residual		0.73	0.03	28.97	0.00
Intercept + OI + MS	UN (1,1)	0.46	0.09	4.97	0.00
	UN (2,1)	0.02	0.02	1.33	0.18
	UN (2,2)	0.02	0.01	2.16	0.03
	UN (3,1)	-0.05	0.03	-1.61	0.11
	UN (3,2)	-0.00	0.01	-0.17	0.87
	UN (3,3)	0.07	0.02	4.07	0.00

Appendix DD

Revised Demographic Frequency Distributions for Main Study Participants

Currently, what is your primary role at your institution?	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Teaching / research faculty	34	58.6	58.6	58.6
Administration or part administrative work	24	41.4	41.4	100.0
Total	58	100.0	100.0	

During your tenure in higher education, what areas have you participated? (Select all that apply)		
Number of Areas Identified	<i>Number of responses</i>	<i>Percent of Respondents</i>
One	1	1.7
Three	2	3.4
Four	8	13.8
Five	17	29.3
Six	30	51.7
Total	58	

What is your primary educational area? (If you are teaching or research faculty, please specify the field in which you teach or do research. If you work primarily in administration, please indicate the area in which you were trained.)

	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Sciences / Engineering	27	46.6	46.6	46.6
Humanities / Social Sciences	31	53.4	53.4	100.0
Total	58	100.0	100.0	

How many years have you been working in academia?

	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Less than 20 years	28	48.3	48.3	48.3
More than 20 years	30	51.7	51.7	100.0
Total	58	100.0	100.0	

Gender	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Male	34	58.6	58.6	58.6
Female	24	41.4	41.4	100.0
Total	58	100.0	100.0	

Appendix EE

Demographic Model for Internal Ratings: Four Main Effects Model (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	1.05	1.04	0.32
Peer/Supervisor Cue (PS)	0.16	0.02	0.00
Organizational/Interpersonal Cue (OI)	-0.05	0.03	0.07
Minor/Serious Cue (MS)	-0.73	0.03	0.00
Interaction: PS * OI	-0.09	0.02	0.00
Interaction: PS * MS	0.02	0.02	0.34
Interaction: OI * MS	0.06	0.02	0.00
Cooperation	0.03	0.02	0.03
Assertiveness	0.02	0.01	0.19
Dutifulness	0.01	0.02	0.50
Gender	0.05	0.14	0.74
Primary	-0.09	0.14	0.53
EdArea	-0.10	0.13	0.44
Years	0.12	0.14	0.40

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>P</i>
Residual	0.72	0.03	28.47	0.00
Intercept + PS + OI + MS				
UN (1,1)	0.29	0.06	4.62	0.00
UN (2,1)	-0.02	0.01	-1.42	0.16
UN (2,2)	0.01	0.01	1.82	0.07
UN (3,1)	0.04	0.02	2.01	0.04
UN (3,2)	0.00	0.01	0.04	0.68
UN (3,3)	0.02	0.01	2.59	0.01
UN (4,1)	0.05	0.02	2.57	0.01
UN (4,2)	-0.01	0.01	-2.05	0.04
UN (4,3)	0.00	0.01	0.41	0.68
UN (4,4)	0.04	0.01	3.42	0.00

Appendix FF

Demographic Model for External Ratings: Four Main Effects Model (REML Estimation)

Parameter	<i>B</i>	<i>SE B</i>	<i>p</i>
Intercept	2.75	0.22	0.00
Peer/Supervisor Cue (PS)	0.06	0.02	0.01
Organizational/Interpersonal Cue (OI)	-0.07	0.03	0.01
Minor/Serious Cue (MS)	-0.81	0.04	0.00
Interaction: PS * OI	-0.14	0.02	0.00
Interaction: PS * MS	-0.08	0.02	0.00
Interaction: OI * MS	0.07	0.02	0.00
Gender	0.09	0.17	0.61
Primary	-0.37	0.18	0.04
EdArea	0.35	0.17	0.05
Years	-0.10	0.17	0.57

Estimates of Covariance Parameters	<i>B</i>	<i>SE B</i>	<i>Wald Z</i>	<i>p</i>	
Residual	0.73	0.03	28.965	0.00	
Intercept + OI + MS	UN (1,1)	0.41	0.08	4.872	0.00
	UN (2,1)	0.02	0.02	0.952	0.34
	UN (2,2)	0.02	0.01	2.157	0.03
	UN (3,1)	-0.04	0.03	-1.495	0.14
	UN (3,2)	-0.00	0.01	-0.166	0.87
	UN (3,3)	0.07	0.02	4.073	0.00