# THE INFLUENCE OF CORE SELF-EVALUATIONS ON DETERMINING BLAME FOR WORKPLACE ERRORS: AN ANOVA-ATTRIBUTION-MODEL APPROACH

by

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#### **Abstract**

The current study examined attributions of blame for workplace errors through the lens of Kelley's (1967) ANOVA model of attribution-making, which addresses the consensus, consistency, and distinctiveness of a behavior. Consensus and distinctiveness information were manipulated in the description of a workplace accident. It was expected that participants would make different attributions regarding the cause of the event due to these manipulations. This study further attempted to determine if an individual's core self-evaluations (CSE) impact how she or he evaluates a workplace accident and attributes blame, either from the perspective of the employee who made the error or that of a co-worker. Because CSE are fundamental beliefs about an individual's success, ability, and self-worth, they may contribute to how the individual attributes blame for a workplace accident. It was found that CSE were positively related to participants' inclination to make internal attributions of blame for a workplace error. Contrary to expectations, manipulations of the consensus and distinctiveness of the workplace error did not moderate participants' attributions of blame. Explanations for these findings are discussed, as are possible applications of this research.

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## **Dedication**

This document is dedicated to my parents, Jim and Chadene Krome, who love and support me in all my endeavors.

## **Chapter 1 - Introduction**

In 2000, the National Research Council, in conjunction with the Institute of Medicine (IOM), revealed some startling news. IOM reported that medical errors resulted in more American deaths than motor vehicle accidents, breast cancer, or AIDS (National Research Council, 2000). Medical errors caused by workers are preventable accidents that occur in the healthcare system and result in an estimated 44,000 to 98,000 fatalities every year, making it the eighth leading cause of death in the United States. These are deaths that are due to human error in the health field alone; many other industries (e.g., transportation, construction, agriculture, fishing/hunting, and manufacturing) also have a substantial number of work-related accidents each year (U.S. Bureau of Labor Statistics, 2012).

These alarming statistics raise several important questions. How do people react in the aftermath of a workplace error? When such a crisis occurs, how do individuals decide who is to be held responsible, and why? Finally, what individual differences and contextual circumstances might influence a person's perceptions following a critical workplace error? Knowledge of how the attribution process differs between the worker who made the error and another party and information about how contextual cues, different perspectives, and personality affect their decisions is needed to answer these questions. Determining the answers to these questions is the purpose of the current study. Therefore, the current research focuses on workplace errors caused by workers, how attributions of blame following a workplace error are made by both the employee committing the error and from the perspective of that employee's co-worker, and the influence of individual differences (specifically core self-evaluations) and contextual factors on the attribution-making process. In order to properly address these topics, a review of the literature is necessary.

### **Workplace Errors**

Accidents happen, and when they happen in the workplace, an error in the system has occurred and there can be severe negative consequences. Errors can harm the success of the system and may contribute to the delay of goal attainment, result in financial loss, and may threaten the safety of workers and patrons (van Dyck, van Hooft, Gilder, & Liesveld, 2010). All complex systems, such as work organizations, will experience failures and errors (Miller & Shattuck, 2005). There are many different factors that can contribute to these system failures: technology problems, situational variables, the design and/or management of the organization, or human error, the last being the focus of this paper. Human error refers to any action made by an individual that fails to meet a certain performance criterion, either implicit or explicit (Sheridan, 2008). When an error involving patron and/or worker safety or health occurs, organizations may react by developing a new "culture of safety," and may create new training programs, encourage teamwork, or implement any number of interventions aimed at diminishing workplace incidents that occur due to human error (Hoff, Pohl, & Bartfield, 2006).

Following an accident or error, judging and attributing blame for the error will inevitably occur (Morris, Moore, & Sim, 1999). This can be in the form of a large and public investigation, or it can be at a more local level, involving only the individuals who witnessed (or participated in) the error. Reviewing attribution theory can shed light on how people might interpret workplace errors, and consequently the scope of the organization's response.

## **Forming Attributions**

There are many studies on attribution theory. Much of current attribution theory was derived from Heider's (1944) paper on social perception and causality (Lippe, 1991). In his discussion of attributions, Heider mentioned the importance that changes in one's perception of a

situation have on making attributions about other individuals and their behaviors. Heider contended that the origin of an attribution can be found in the evaluator's "pursuit of meaning." Specifically, Heider proposed that when an event occurs, its cause can be credited to oneself, to an external factor, or to "fate."

Along similar lines, Jones and Davis (1966) proposed the correspondent inference theory in an effort to account for an observer's inferences about the purpose of an individual's actions. Specifically, this theory addressed dispositional attributions that are made about a person after she or he has acted. Under this theory, the observer judges how analogous the target behavior is to the character or disposition of the person performing it. In other words, this theory addresses how well the person's personality characteristic(s) correspond to his or her behavior.

Jones and Davis concluded that "correspondence increases as the judged value of the attribute departs from the judge's conception of the average person's standing on that attribute" (Jones & Davis, 1966, pp. 224). This implies that as correspondence between character and behavior increases, the behavior can be attributed to the personality of the person performing the behavior. Furthermore, less socially desirable behaviors allow for greater inference regarding the individual performing the action, as do the number of uncommon effects following the behavior.

However, according to the correspondence inference theory certain conditions must be considered before any attributions can be made. Jones and Davis (1966) first assume that in order for intent to be established, the person performing the behavior must have knowledge of the outcomes of his or her actions. That is, the person must be aware that his or her actions will have possible consequences. However, random or completely unexpected events unrelated to the individual and his or her behavior would not fall under this assumption.

A second assumption of the theory is that simply desiring to achieve an outcome is not

sufficient to consider an individual responsible for an event (Jones & Davis, 1966). A person must be capable of performing an action, that is, so as to move from desire for an outcome to achievement of that outcome. If the ability to perform the action is not present, no attributions can be made based solely on the person's desire for an event to occur. This failure to cause a specific outcome can also cloud attributions made about whether the person desired the consequence in the first place. Additionally, luck or chance can influence an outcome. Someone is more apt to believe that an outcome is due to chance and/or luck if the person who brought about the outcome is a novice or if it is believed that should that person have wanted to cause the effect, he or she would not have been able to do so at will (due to lack of skill). Such conclusions involve judgment of ability relative to difficulty.

However, these theories fail to account for contextual factors, and in 1967 Kelley proposed the ANOVA (cube) model, which stipulates that perceptions of three types of information are particularly important in making attribution decisions; they are: the consensus, consistency, and distinctiveness of an event or behavior. Consensus refers to whether the observed behavior is similar to the behaviors made by others when presented with the same stimulus. Consistency refers to whether the behavior has been demonstrated in the same way at different times by the target individual. In this way, consistency focuses on attributions over time and modalities. Distinctiveness has to do with whether the event occurs only in the presence of an external object/entity. Basically it is comparing the observed behavior to other pertinent behaviors across situations for that person (Hesketh, 1984).

These three factors (consensus, consistency, and distinctiveness) make up the independent variables of the ANOVA model, the dependent variable being whether a specific attribution occurs (Kelley, 1967). The covariation principle is a major element of this theory, and

suggests that a certain effect can be viewed as being caused by a specific factor if the event and factor covary. Using this model, the overall effect of an event can be attributed to one specific component of the theory, or to a combination of the three. For instance, Kelley (1967) predicted that high consensus, high consistency, and high distinctiveness would be associated with contextual or external (non-personal) attributions. McArthur (1972) tested Kelley's prediction and similar others using the ANOVA model and found that high consensus and high distinctiveness were indeed associated with making non-personal attributions. Furthermore, McArthur found that the opposite outcome was supported as well; low consensus and low distinctiveness produced more personal attributions.

An example can help illustrate the manner in which this theory operates. Dave went to a movie with his friends on Friday night. If Dave enjoyed the movie but his friends did not, this would exhibit low consensus because the observed behavior is not the same for all of the individuals. However, if in the past Dave has liked movies that his friends have disliked, this would show high consistency. And, if Dave enjoys pretty much all movies he sees, this would illustrate low distinctiveness, since it is a common occurrence. This combination of factors (low consensus, high consistency, and low distinctiveness) indicates that Dave's enjoyment of the movie is due to something that is internal and specific to him and not due to situational context (Kelley, 1967; Orvis, Cunningham, & Kelley, 1975). If, on the other hand, Dave and all of his friends enjoyed the movie (high consensus), Dave has liked movies in the past that his friends have liked (high consistency), and Dave does not usually like movies (high distinctiveness), this would indicate that the effect is due to factors external to Dave.

Much attribution research followed the ANOVA theory, and in 1974, Weiner proposed a theory that addresses a person's causal attributions for the successes and failures of others.

Weiner's theory discussed the many antecedents of causal attributions, such as informational cues (e.g. norms, historical successes of the individual, time devoted to the task, and task characteristics). Weiner proposed that attributions could be predicted given specific pieces of information (Frieze & Weiner, 1971; Weiner, 1974). For instance, Weiner contended that a person's ability is inferred by interpretations of the individual's repeated successes and failures, often in the context of social norms (Weiner, 1974). Patterns of performance and maximum performance level are also considered when making attributions regarding one's ability.

According to Weiner, perceived task difficulty is determined by social norms and objective task characteristics (Weiner, 1974). However, subjective determinations can be made about task difficulty when looking at the percentage of overall successes and failures across multiple instances and individuals. Luck, on the other hand, is inferred from cues about the individual's apparent lack of outcome control and variability in the outcome sequence.

Weiner also acknowledged that individual differences play a role in how attributions are made (Weiner, 1974). Different individuals focus on different types of information, as well as the amount of information that is available, when making attributions. For instance, a person may have a particular bias for one type of information and rely on that information more heavily when making a decision regarding another individual. An example of this can be shown in success-driven individuals who see themselves as more able than others; those individuals will perceive another person's success or failure as a function of his or her ability and therefore will be more aware of cues relating to the skills of the individual under scrutiny.

Causal schemata also affect attributional inferences. A causal schema refers to an individual's belief regarding the relationship between an event and what is understood to cause the event (Weiner, 1974). The conditions of the schema (necessary vs. sufficient) affect the way

a causal attribution is inferred. Specifically, ability and effort attributions that are made regarding an individual can be influenced by causal schemata. If the causal schema is *sufficient*, either ability or effort is required for an effect, but not both. However, if both ability and effort are needed for an outcome, this is a *necessary* causal schema. Furthermore, the distinctiveness of the individual's performance, and whether that person was successful, invokes the necessary or the sufficient causal schemata. Very difficult tasks more often elicit a necessary schema whereas an easier task is most likely to be believed to require a sufficient causal schema. The nature of the schema and whether it is necessary or sufficient will influence perceptions of the individual's failure or success.

Hewstone and Jaspars (1987) proposed their own attribution theory in response to Kelley's ANOVA model. These authors proposed the Logical Model, which addresses flaws they perceived in McArthur's (1972) test of the ANOVA model. Hewstone and Jaspars' concern with McArthur's study was that the analyses focused on the main effects of person, stimulus, and circumstance rather than the patterns of information (i.e., the interaction effects; high vs. low consensus, distinctiveness, and consistency). This model can be used to explain how information obtained from attributional vignettes might be coded so that causal inferences can be formed (Hewstone & Jaspars, 1987). Based on the information that is presented, the individual codes the material in terms of behaviors, circumstances, people, and stimuli. The individual then uses consistency, consensus, and distinctiveness cues to determine if the behavior generalizes across circumstances, persons, and stimuli.

Next, the person must determine if the causal stimuli are necessary and/or sufficient conditions for the behavior to occur. If the outcome is present when the condition is also present, this is a sufficient condition. On the other hand, if the outcome is absent when the condition is

absent, this is a necessary condition. A necessary and sufficient condition requires that the behavior occurs only when a specific condition is present and not when it is absent.

Making use of this voluminous research on attribution-making, understanding the processes affecting attributions regarding performance errors (specifically workplace performance), is the next step. Kelley's ANOVA model looks at the main effects of the informational aspects of the situation, which should provide insight into how performance errors are viewed and how attributions of blame are made using these factors. Given the large body of research that supports the ANOVA model, an opportunity exists to expand the research in new directions while also maintaining a strong theoretical framework. However, the element of consistency has bias toward external attributions regardless of other factors; essentially it overpowers consensus and distinctiveness factors (Pruitt & Insko, 1980). Low consistency information will result in circumstantial attributions, which are typically assumed by the individual making a judgment to be temporary. For this reason, consistency will be left out of the proposed study and instead consensus and distinctiveness will be manipulated to determine the effect these aspects of the workplace error have on the outcome decisions. Consensus and distinctiveness can be very salient aspects of a workplace incident, and so for the purpose of this research, Kelley's (1967) model was determined to be the most appropriate theory for the current study. Not only is there an abundance of information regarding this theory, with research supporting it, but this theory addresses the main effects of consensus and distinctiveness in a scenario (as well as consistency). These contextual factors were anticipated to be important for understanding how employees and co-workers interpret a workplace error and Kelley's ANOVA model allowed for manipulation and examination of these factors in the desired manner.

#### **Core Self-Evaluations**

One personality construct that may be particularly relevant in studying attribution making following a workplace error is core self-evaluations, or CSE (Judge, Locke, Durham & Kluger, 1998). CSE consist of four personality traits: self-esteem, generalized self-efficacy, locus of control, and neuroticism (Judge, Locke, & Durham, 1997). A relatively new concept in psychology, CSE were first discussed by Judge et al. (1997) in relation to job satisfaction. Essentially, CSE are fundamental assessments that individuals make about their ability, success, and self-worth (Judge, Bono & Locke, 2000; Van Doorn, Lang & Weijters, 2010).

CSE have been studied in a variety of contexts. Research has shown a positive relationship between high CSE and job and life satisfaction (Judge et al., 1998). Judge et al. (2000) found that CSE that were measured in both childhood and early adulthood were related to job satisfaction measured in middle adulthood, mediated in part by job complexity. Furthermore, a 2009 meta-analysis by Kammeyer-Mueller et al. found that high CSE were correlated with less avoidance and emotion-focused coping and greater problem-solving coping. Additionally, participants with positive CSE perceived fewer stressors and reported lower strain (Kammeyer-Mueller et al., 2009).

Research conducted by van Doorn et al. (2010) found that participants with lower CSE tended to report a greater rate of mistakes over the course of the day, as measured by the cognitive failures questionnaire (CFQ), a 25-item self-report instrument that measures an individual's tendency to make daily errors. People who score high on the CFQ tend to have low self-worth and a negative self-image, as well as more depressive symptoms. Individuals who report a higher CFQ score are also more likely to express higher levels of stress and burnout and judge their performance less favorably than others. The CFQ not only correlates with self-reported daily errors, it has also been found to be consistent with officially registered accidents

and mistakes.

The CFQ is related to an individual's self-image, as reflected by CSE. Because individuals scoring high in daily mistakes also have lower CSE, it is logical that more negative CSE would be associated with attributing blame to oneself for these errors. In a workplace situation, the individual would be attributing blame to him or herself for the workplace error. When an individual low in CSE is attributing blame for an error caused by a co-worker, the individual's pessimistic self-view can be projected onto the co-worker, thus the individual would form a more negative, internal attribution about the co-worker. Conversely, a person having high CSE, with more positive thoughts and self-image, may make less negative internal attributions about the employee who made the error.

Adding to attribution research is the fundamental attribution error (FAE). The FAE would indicate that when humans evaluate another person's error, the error will be attributed more to the individual and not the context of the situation (Harvey, Town, & Yarkin, 1981). This means that people typically make more internal attributions about others following an incident rather than external attributions; dispositional explanations for behavior are more often made as opposed to situational explanations.

If a person has a low CSE, this individual has negative beliefs about his or her performance and self-worth; this in turn may cause him or her to internalize his or her feelings to the employee who made the error, and hold that person more to fault. This ties into Weiner's (1974) attribution theory and the effect that individual differences have on attributing outcomes. Furthermore, because of the FAE and how individuals may differ in evaluating an event and deciding blame, the perspective of who is making the evaluation (the person who made the error or an outside party) and his or her CSE is of importance and needs to be researched. Therefore,

establishing a link between attributions for errors and CSE is one objective of the current research.

#### The Current Research

The current study utilized the ANOVA attribution model to investigate how blame for workplace errors is attributed by individuals when assuming the role of the employee who made the error compared to when the employee's co-worker made the error. Furthermore, the possible influence that an individual's CSE has on how he or she interprets a workplace error and subsequently attributes blame was researched within this model. Therefore,

Hypothesis 1: Individuals with lower CSE will be more likely to make internal attributions than individuals with higher CSE.

Hypothesis 2: Participants evaluating the scenario from the co-worker's perspective will report greater personal blame and internal attributions than participants evaluating the scenario from the perspective of the employee who made the error.

Hypothesis 3: Workplace accidents that occur under conditions of high consensus and high distinctiveness will result in less personal blame and more external attributions. This effect will be moderated by CSE, such that the effect will be stronger for individuals having higher CSE than for those with lower CSE.

Hypothesis 4: Workplace accidents that occur under conditions of low consensus and low distinctiveness will result in greater personal blame and internal attributions. This effect will be moderated by CSE, such that the effect will be stronger for individuals having lower CSE than for those with higher CSE.

## **Chapter 2 - Method**

### **Participants**

In this study, 155 Kansas State University (KSU) undergraduates were recruited for participation. The power analysis tool G\*Power was used to determine the necessary number of participants (138) required in order to achieve a power value of .95, assuming an effect size of .15; this specific test was a linear multiple regression fixed model with four predictors, looking at the deviation of  $R^2$  from zero (Faul, Erdfelder, Lang & Buchner, 2007). Participants were recruited over the course of one semester from the online SONA research introductory psychology participant pool, and in person from other undergraduate psychology courses at KSU. The participant pool was mostly female (62%) and Caucasian (87%), with a mean age of 20.4 years (SD = 3.4). Participants had worked an average of 4.25 years since getting their first job and 49.7% of the participants were employed at the time of the survey. All participants were treated in accordance with American Psychological Association ethical principles, in addition to KSU's Institutional Review Board guidelines.

#### Measures

Demographic information was obtained using a survey consisting of eight questions (see Appendix A). Participant sex, age, ethnicity, major or intended major, and class ranking (freshman, sophomore, junior, senior, or other) were determined using this form. Furthermore, information regarding the participant's employment history was obtained. Participants were asked if they were currently employed, how many years they have worked since their first job, and in what areas of work they have been employed, with the options of "sales," "food service," "administration," "labor," and "other." Participants were also instructed to mark down their job title next to the appropriate category selection, in order to assure correct classification.

The four components of CSE (self-esteem, generalized self-efficacy, locus of control and neuroticism) were measured using the Core Self-Evaluations Scale (CSES), designed by Judge, Erez, Bono, and Thoresen (2003; see Appendix B). Though the CSES measures a single-dimension construct, the four components of CSE were represented in the scale development. Judge et al. used items from Rosenberg's (1965) self-esteem scale, the generalized self-efficacy scale by Judge, Locke, Durham, and Kluger (1998), Levenson's (1981) locus of control scale, and Eysenck and Eysenck's (1968) measure of Neuroticism. From 65 items, 12 were retained for the current version of the CSES. For the purpose of this proposal, the Core Self-Evaluations Scale was obtained from the following author webpage: http://www.timothy-judge.com/CSES.htm

This study required several versions of a scenario that described a workplace error. In half of the conditions, the participant was instructed to assume the perspective of the employee who had made the error. The participant then answered a series of questions aimed at determining how he or she attributed blame for the accident (see Appendices C, E, G, and I). In the remaining conditions, the participant was instructed to adopt the perspective of a co-worker of the employee who made the error and then read the same scenario from this point of view (see Appendices D, F, H, and J). The participant then answered the same series of questions regarding attribution of blame for the accident. Orthogonally to the perspective factor described above, the scenarios were manipulated so that high consensus and high distinctiveness of the workplace accident was described in half of the scenarios (see Appendices C, D, E, and F) and low consensus and low distinctiveness of the workplace accident was described in the other scenarios (see Appendices G, H, I, and J). Finally, orthogonal to both of the above factors, there were two types of workplace accidents: one accident being more severe (see Appendices C, D, G, and H)

and the other being less severe (see Appendices E, F, I, and J).

In all conditions, in addition to measuring participants' attributions for the workplace error described in the scenario, a series of questions were asked to address the hypotheses regarding attribution making (see Appendices C-J). These questions determined how participants felt regarding the outcome of the event, if they would have personally felt responsible for the accident, how they would have felt having actually made the workplace error, and how she or he would have coped with this experience.

Three of these questions were designed to be the dependent variable of this study. The second question, "[a]s the employee, I would take total and complete responsibility for this accident," or "[y]our co-worker should take total and complete responsibility for this accident," measures the degree to which the participant assigns responsibility for the error to the actor in the vignette (evaluated from the employee's or co-worker's perspective, respectively). Both the fourth question, "[a]s the employee, I feel this was clearly a mistake and not simply carelessness on my part," or "I feel this was clearly a mistake and not simply carelessness on the part of the employee," and the ninth question, "I feel that there may have been external factors that should have been considered in resolving this issue," measure the degree to which the participant feels that external factors should be considered in making attributions.

#### **Procedure**

Participants were recruited either online from the Kansas State University SONA system or in-class from various undergraduate psychology courses at KSU (participants recruited in-class filled out a pen-and-paper version of the online surveys and scales found on SONA). Participants initially filled out a demographic survey and the CSES. Participants were then randomly assigned to a condition defined by three independent variables, each with two levels

(i.e., a 2 x 2 x 2 design). In half of the conditions, the participants were instructed to assume the role of the employee and to read a scenario describing a workplace accident in which the employee's actions resulted in his or her suspension. The other participants were instructed to assume the role of the co-worker of the employee who made the error and then read a scenario describing the same workplace accident ending in the suspension of the participant's co-worker. The second independent variable described the consensus and distinctiveness of the event. In half of the conditions the scenario described high consensus and high distinctiveness (e.g. high distinctiveness: it was the grand re-opening and the restaurant was extremely busy), whereas in the other conditions the scenario described low consensus and low distinctiveness (e.g. low distinctiveness: it is an exceptionally slow day with few customers). The final independent variable involved the severity of the workplace accident, with some conditions describing a severe accident resulting in a hospital visit, and the others a more moderate accident, involving an upset customer. Participants then answered questions attributing blame for the incident, their feelings about the resolution of the issue, how they would feel if they had in fact made the error, and how they feel they would cope with that knowledge and experience. Participants were then debriefed and told the purpose of the study.

### Chapter 3 - Results

The three dependent variable questions were combined to form one composite variable. Question nine was reverse scored to be a measure of agreement with a strong internal attribution. The composite dependent variable was found to have a very low Cronbach's alpha of .213. The Chronbach's alpha was shown to increase to .445 if question four ("As the employee, I feel this was clearly a mistake and not simply carelessness on my part," or "I feel this was clearly a mistake and not simply carelessness on the part of the employee") was deleted, so this was done. The final dependent variable was made up of two questions measuring participants' perceptions of agreement with the internal attribution of blame for the workplace error. The Cronbach's alpha for the CSES was found to be .794.

To test Hypothesis 1 (that individuals with lower CSE will be more likely to engage in internal attribution-making than individuals with higher CSE) intercorrelations were computed with the composite dependent variable (See Table 1). This test was found to be statistically significant, (r = .251, p < .01). As participants' CSE increased, so too did their agreement with forming internal attributions of blame. This was contrary to the expected outcome, so Hypothesis 1 was not supported.

Correlations were also used to test Hypothesis 2 (See Table 1). The second hypothesis stated that participants evaluating the scenario from the co-worker's perspective would report greater personal blame and internal attributions than participants evaluating the scenario from the perspective of the employee who made the error. The same dependent variable measuring internal attributions of blame was used. This test was not found to be statistically significant, (r = -.110, p = .173). Therefore, Hypothesis 2 was not supported.

Hypothesis 3 stated that workplace accidents that occurred under conditions of high

consensus and high distinctiveness would result in less personal blame and more external attributions. This effect was expected to be stronger for individuals having higher CSE than for those with lower CSE. Hypothesis 4 stated that workplace accidents that occurred under conditions of low consensus and low distinctiveness would result in greater personal blame and internal attributions. It was expected that the effect would be stronger for individuals having higher CSE than for those with lower CSE. To look at the moderating effect of CSE, a regression analysis was conducted using Baron and Kenney's (1986) three-step procedure.

Control variables included the severity of the error and the participants' perspective (self or co-worker). Next, the high or low consensus and distinctiveness condition was entered into the regression analysis along with participants' CSE scores. The incorporation of these variables significantly increased explained variance in the model,  $R^2$  Change = .09, F(2, 150) = 7.549, p < .01 Then the interaction term of these two variables (which was created by multiplying participants' CSE by the high or low consensus/distinctiveness variable) was entered into the regression. The dependent variable was the measure of how much participants agreed with the internal attribution of blame for the workplace error. The analysis was non-significant,  $R^2$  Change = .007, F(1, 149) = 1.217, p = .272. Therefore, Hypotheses 3 and 4 were not supported.

**Table 3.1 First Table in Chapter 3**Correlations Between Variables

Measure	1	2	3	4	5
1. Consensus/Distinctiveness		04	17*	.05	15
2. CSES			.03	03	.25**
3. Self/Co-worker pe	erspective			.08	11
4. Severe/Moderate	error				04

## 5. Internal Attribution

*Note.* \* *p* < .05, \*\* *p* < .01

## **Chapter 4 - Discussion**

It was expected that individuals with lower CSE would be more likely to engage in internal attribution-making than individuals having more positive CSE; this supposition was not supported by the data. Additionally, it was believed that participants would be more likely to make more internal attributions about the employee when evaluating from the co-worker's perspective. However, the current data did not support this hypothesis. It was also anticipated that when the workplace accident had high consensus and distinctiveness, participants would attribute less personal blame; it was expected that this effect would be stronger in participants with higher CSE scores than participants with lower CSE scores. It was further predicted that participants would place greater personal blame under conditions of low consensus and distinctiveness, more so if they had lower CSE scores than those with higher CSE scores. Unfortunately, none of these suppositions were supported by the data.

In looking at the first hypothesis, the data did not provide significant support that those individuals lower in CSE had made more internal attributions than individuals having higher CSE. In fact, the opposite was found to be true; as participants' CSE increased and became more positive, they agreed more with statements indicating internal attributions of blame for a workplace error. Despite Hypothesis 1 not being supported, the significant results of this hypothesis test provide a very relevant and valuable finding, although it is in the opposite direction of what was expected: the current study found support for a positive correlation between CSE and internal attributions of blame for workplace errors.

CSE measures a person's self-esteem, his or her generalized self-efficacy, the extent to which the person's possesses an internal locus of control, and the individual's level of neuroticism. This is a complicated measure of how positive a person feels about him or herself.

It measures how the individual feels about his or her ability, success, and essentially, one's self-worth. People who have a high CSE have positive perceptions of self-worth and view themselves in a more positive light. Because they feel self-assured and confident in their efficacy and self-worth, they may be more likely to impress those outlooks on others and hold others to the same standards as themselves. Therefore, if another person makes an error, the individual, who feels confident in himself and feels that he would be able to be successful in a similar venture, may view the other person's errors with more internal blame.

For instance, if an individual has high CSE, he scores highly in self-esteem, so he has a good opinion of himself. He also has a high score in general self-efficacy, so he believes he is a capable individual and can accomplish tasks. This person is also likely to have a more internal locus of control. This is a benefit because it allows the individual to feel that he is in control of his own environment and the master of his destiny; in this way, the person feels he has control in the outcomes pertaining to him. Finally, this individual would score low in neuroticism, showing high emotional stability. He is not likely to experience negative emotions too readily and doesn't get too anxious or upset at the drop of a hat. All of these factors influence the individual and his perceptions of the world around him.

When this individual sees his co-worker make an error, if he is trying to determine the cause of the event, he may draw upon his own thoughts and feelings to come to a conclusion. The individual perceives his co-worker make the error and—because he himself is confident, self-assured, believes he is in control of his actions and outcomes, and feels that he is a very capable person—thinks that he would not make that same error himself. Therefore, the individual believes that the co-worker is at fault for the error because he or she is not as capable and in control. This line of thinking does not account for external factors, which may or may not be

present. Because of this, individuals with high CSE might be more prone to making more internal attributions of blame. Further elaboration of this relationship would be an important contribution to both attribution research and CSE research.

The second hypothesis dealt with the fundamental attribution error (FAE). It was believed that participants would be more likely to make internal attributions about the employee who made the error when evaluating from the co-worker's perspective. This supposition follows the logic behind the FAE, in that people tend to make more internal attributions about the failures of others and more external attributions regarding their own failures or mistakes. Quite surprisingly, Hypothesis 2, and subsequently the FAE, was not supported in the current study.

The nature of the experiment could be one explanation for the lack of support for the FAE; because this study dealt only with vignettes, the contextual information was made available to the participant (this information had to be available to the participant, as it was a manipulated IV). Typically, it is believed that the FAE occurs in part because contextual information, which is usually salient to the individual making judgments about him or herself, is more ambiguous in the instance of judging another person. When a person makes a judgment about him or herself, this individual is aware of the situation and can factor in those external factors when deciding where to place blame for an error. When making judgments about another, sometimes that contextual information is unknown or given little weight, which can make the person making judgments assume more internal attributions of blame regarding the other individual. In this study, which utilized vignettes, all the information was presented, so the ambiguous context was not an issue and the FAE did not occur as it normally would in an organic situation.

Another possibility is that the manipulation did not work as anticipated. That is to say, participants may have had a difficult time trying to adopt a different (co-worker) perspective.

Because participants are already in a hypothetical situation, further removing them from the event by asking them to evaluate someone else may have led to failure in assuming the coworker's perspective. This could contribute to the failed support for Hypothesis 2.

Finally, the data were analyzed to determine how Kelley's ANOVA model and CSE might interact. Recalling that the consistency aspect of the ANOVA model was excluded for this study due to its overwhelming influence, only the consensus and distinctiveness of the situation surrounding the vignette error was manipulated. Therefore, it was expected that when the error situation had high consensus and high distinctiveness, participants would place less personal blame (making external attributions). It was further believed that this effect would be stronger for participants who had higher CSE. In contrast, it was expected that participants would be more likely to place more personal blame (making internal attributions) when the consensus and distinctiveness conditions were low. This was expected to be stronger for participants with lower CSE. Neither of these hypotheses were supported.

One explanation for the failure of these hypotheses could be in the nature of the dependent variable. Unfortunately, the dependent variable for this experiment consisted of only two items, which contributed to the low reliability. Because of the weak and unreliable dependent variable, the expected effect may have been missed. Additionally, the manipulation could have been at fault. If the manipulation between conditions of high and low consensus and distinctiveness was not clear enough to participants, the experiment would not work as expected. A proper manipulation check before collecting data would have been helpful in avoiding this possible problem.

Despite Hypotheses 3 and 4 not being supported, some important information can be obtained from this analysis. The distinctiveness/consensus variable was a significant unique

predictor of internal attribution making, b = -.16, p < .05. This is expected, as the purpose of the manipulation of the high and low consensus and distinctiveness of the scenarios was to influence participants to make more internal or external attributions of blame. The information from this regression supports that the manipulation of these two aspects of the vignettes was successful at influencing participants' attribution decisions. Despite there being no manipulation check in this study, the relationship revealed in this analysis lends support to the idea that the manipulation was successful.

Additionally, CSE was a significant predictor of internal attribution making, b = .25, p < .01. This regression outcome coincides with the results of the correlation testing Hypothesis 1. That is, participants with higher CSE make more internal attributions of blame for the workplace error. A very interesting and unexpected finding, the nature of this relationship should be examined in future research.

#### Limitations

As previously mentioned, a manipulation check for the attribution theory condition as well as the self/co-worker perspective condition would have been helpful and possibly ruled out confounds in the current experiment. The condition of moderate error or severe error was not found to produce any significant effects either, so perhaps that condition could have been more intently manipulated as well. A stronger manipulation (perhaps a fatal workplace error) may have made this condition a much stronger predictor.

Another limitation lies in the nature of the vignette study. While convenient and easy to create, vignettes were perhaps not the best way to collect data for the current project, especially when trying to test a hypothesis dealing with the FAE. The nature of this study provided participants with access to all of the pertinent information to make attributions about the

workplace error. However, part of the basis of the FAE is the ambiguity of circumstances, so by providing participants with all of the relevant information this element was removed, which in turn may have contributed to the failure of the second hypothesis.

A further limitation can be found in the dependent variable for this study. A stronger, multi-faceted, multi-item dependent variable with a much higher reliability would strengthen the current study immensely. A dependent variable especially designed to measure participants' internal judgments of blame would be very valuable in any future experiments of this nature. This dependent variable would ideally have multiple questions regarding the internal attributions that are made by participants and their satisfaction with the scenario outcome.

Finally, there is some additional thought regarding the manipulation of distinctiveness in the study vignettes. To manipulate distinctiveness of the scenario, the work demand of the situation was manipulated. In the high distinctiveness condition, the scenario read: "One day, your restaurant has a grand re-opening and is crowded with customers; it is extremely busy in the kitchen." In the low distinctiveness condition, it read: "You start your shift and it is an exceptionally slow day; there are hardly any customers at all." There are two reasons that this manipulation was limiting and did not meet the intended purpose.

First, in trying to maximize the differences between the scenarios, the distinctiveness of the event was lost. A restaurant grand re-opening is a distinctive event, but an "exceptionally slow day" might be viewed as distinctive as well. A more appropriate manipulation would have to compare the grand re-opening to a "typical day." In that way, the grand re-opening remains distinctive and the other scenario shows low distinctiveness. However, the manipulation of the event in and of itself was the second limitation. The event should not have been distinct; the behavior of the individual involved in the workplace error should have been what was distinctive. For instance, if the cook

involved in the workplace error usually always checked with the waiter for any allergy-related order specifications, but didn't on that day, this would be a high distinctiveness condition. If the cook usually always checked with the waiter for allergy-related order specifications and did on this day and still failed to change the order, this would be a high distinctiveness condition. Because the manipulation of the distinctiveness condition was not entirely appropriate, this may have contributed to some of the unsupported hypotheses.

#### **Future Research**

In looking at expanding this research, a future study of interest would be to gain further clarity into the relationship between CSE and attributions of blame. The data obtained in this study indicates a positive correlation between CSE and internal attributions of blame for workplace errors; obtaining more information about this finding and determining if there is a underlying pattern to the relationship between these two variables would be a valuable addition to the current body of literature on these subjects. One possible study could be a quasiexperiment in which participants were separated into high and low groups according to their CSES. Participants would then be asked to work on a project with a partner who is actually a confederate instructed to "accidentally" mess up the project. Additionally, different factors about the situation (room temperature, noise level, timing the task, etc.) could be manipulated. This would provide opportunity to manipulate the distinctiveness and consensus of the situation such that participants might be more or less likely to make internal or external attributions regarding the cause of the confederate error. Participants would then be given an exit interview or questionnaire addressing many of the similar attribution questions that were asked in the current study. Though not a true experiment, this study may provide greater support for a strong positive relationship between CSE and internal attributions of blame.

#### Conclusion

Though no hypotheses were supported, the current study does reveal some significant findings. Perhaps most interesting is the positive relationship between CSE and internal attribution making regarding workplace errors. It is of great interest to know that CSE is indeed related to how individuals interpret and assess blame for a workplace error. Knowledge of one's CSE and that it correlates to how blame is attributed can provide a platform for more research aimed at determining the exact nature and mechanisms driving this relationship. A person's fundamental assessment about him or herself, that is, the way that individual feels about his or her ability, success, and self-worth, can relate to how he or she judges and places blame in a workplace error situation. This can be a huge influence in the workforce and in everyday life and deserves special consideration.

Specifically, managers can have the understanding of how individual differences may have a large impact in how people interpret a workplace error and lay blame. Following a workplace error, being aware of how different employees will clue into different aspects of the situation and come away with different understandings of who or what is responsible is an important factor to keep in mind when dealing with disciplinary decisions. Additionally, the current research implies that contextual factors of the situation should be considered following a workplace error. Any members of a disciplinary committee should be alerted to aspects of a situation relating to the consensus and distinctiveness. With fully informed disciplinarians, it is hoped that the most appropriate outcome will be decided upon for an employee following a workplace error. This would be ideal so that other employees might perceive the system as just and feel confident that their organization will treat workers fairly when addressing workplace errors.

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### **Appendix A - Demographic Survey**

Sex:	
Age:	_
Ethnicity (plea	ase circle one):
	Caucasian/White
	African American/Black
	Hispanic/Latino/Latina
	Asian
	Other
Major or inten	nded major of study or "undeclared":
Class ranking	(please circle one):
	Freshman
	Sophomore
	Junior
	Senior
	Other
Do you curren	atly have a job/are employed:
What areas of	work experience do you have?
	Sales
	Food service
	Administration
	Labor
	Other
Since getting	your first job, how many years have you worked:

#### **Appendix B - Core Self-Evaluation Survey**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I am confident I get the success I deserve in life.
2.	Sometimes I feel depressed. (r)
3.	When I try, I generally succeed.
4.	Sometimes when I fail I feel worthless. (r)
5.	I complete tasks successfully.
6.	Sometimes, I do not feel in control of my work. (r)
7.	Overall, I am satisfied with myself.
8.	I am filled with doubts about my competence. (r)
9.	I determine what will happen in my life.
10.	I do not feel in control of my success in my career. (r)
11.	I am capable of coping with most of my problems.
12.	There are times when things look pretty bleak and hopeless to me. (r)
	r = reverse-scored items; participant did not see

# Appendix C - Severe Error Vignette/Employee Perspective/External Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you would feel as the employee being discussed in the scenario.

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very inept co-workers (also cooks) who are constantly making mistakes and messing up orders. One day, your restaurant has a grand re-opening and is crowded with customers; it is extremely busy in the kitchen. You receive an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. You refrain from adding chopped peanuts to the dish, but forget to use a non-peanut oil to cook the food in. The customer eats the dish and becomes extremely ill and is rushed to the hospital. Following protocol, your supervisor suspends you immediately.

Using the response scale below, please indicate your agreement or disagreement with each item in

this survey by placing the corresponding number on the line preceding that item.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	I feel that the suspension was an appropriate outcome to the situation.
2	As the employee, I would take total and complete responsibility for this accident.
3	I feel that the suspension was too drastic of a response to the incident. (r)
4	As the employee, I feel this was clearly a mistake and not simply carelessness on my part.
5.	As the employee, I would be devastated if I had done this.

6.	As the employee, I would have a very hard time coping with this event.
7.	As the employee, I would be comfortable returning to work after this event. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)
	r = reverse-scored items; participant did not see

### Appendix D - Severe Error Vignette/Co-worker Perspective/External Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the co-worker of the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very inept co-workers (also cooks) who are constantly making mistakes and messing up orders. One day, your restaurant has a grand re-opening and is crowded with customers; it is extremely busy in the kitchen. Your co-worker receives an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. Your co-worker refrains from adding chopped peanuts to the dish, but forgets to use a non-peanut oil to cook the food in. The customer eats the dish and becomes extremely ill and is rushed to the hospital.

Following protocol, your supervisor suspends this employee immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	I feel that this was an appropriate outcome to the situation.
2	Your co-worker should take total and complete responsibility for this accident.
3	I feel that this was too drastic of a response to the incident. (r)
4	I feel this was clearly a mistake and not simply carelessness on the part of the employee.

5.	I would be devastated if I had done this.
6.	I would have a very hard time coping with this event if I had done this.
7.	I would be comfortable returning to work after this event if I had done this. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

### Appendix E - Moderate Error Vignette/Employee Perspective/External Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you would feel as the employee being discussed in the scenario.

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very inept co-workers (also cooks) who are constantly making mistakes and messing up orders. One day, your restaurant has a grand re-opening and is crowded with customers; it is extremely busy in the kitchen. You receive an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. You refrain from adding chopped peanuts to the dish, but forget to use a non-peanut oil to cook the food in. The customer eats the dish and becomes breaks out in hives and is very angry. Following protocol, your supervisor suspends you immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I feel that this was an appropriate outcome to the situation.
2.	As the employee, I would take total and complete responsibility for this accident.
3.	I feel that this was too drastic of a response to the incident. (r)
4.	As the employee, I feel this was clearly a mistake and not simply carelessness on my part.
5.	As the employee. I would be devastated if I had done this

6.	As the employee, I would have a very hard time coping with this event.
7.	As the employee, I would be comfortable returning to work after this event. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

### Appendix F - Moderate Error Vignette/Co-worker Perspective/External Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the co-worker of the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very inept co-workers (also cooks) who are constantly making mistakes and messing up orders. One day, your restaurant has a grand re-opening and is crowded with customers; it is extremely busy in the kitchen. Your co-worker receives an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. Your co-worker refrains from adding chopped peanuts to the dish, but forgets to use a non-peanut oil to cook the food in. The customer eats the dish and breaks out in hives and is very angry. Following protocol, your supervisor suspends this employee immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

l.	I feel that this was an appropriate outcome to the situation.
2.	Your co-worker should take total and complete responsibility for this accident.
3.	I feel that this was too drastic of a response to the incident. (r)
1.	I feel this was clearly a mistake and not simply carelessness on the part of the employee.

5.	I would be devastated if I had done this.
6.	I would have a very hard time coping with this event if I had done this.
7.	I would be comfortable returning to work after this event if I had done this. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

# Appendix G - Severe Error Vignette/Employee Perspective/Internal Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very competent co-workers (also cooks) who rarely make mistakes and always get lots of praise from their customers. You start your shift and it is an exceptionally slow day; there are hardly any customers at all. You receive an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. You refrain from adding chopped peanuts to the dish, but forget to use a non-peanut oil to cook the food in. The customer eats the dish and becomes extremely ill and is rushed to the hospital. Following protocol, your supervisor suspends you immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I feel that this was an appropriate outcome to the situation.
2.	As the employee, I would take total and complete responsibility for this accident.
3.	I feel that this was too drastic of a response to the incident. (r)
4.	As the employee, I feel this was clearly a mistake and not simply carelessness on my part.

5	As the employee, I would be devastated if I had done this.
6	As the employee, I would have a very hard time coping with this event.
7	As the employee, I would be comfortable returning to work after this event. (r)
8	I feel this incident should have been resolved more leniently. (r)
9	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

# Appendix H - Severe Error Vignette/Co-worker Perspective/Internal Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the co-worker of the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very competent co-workers (also cooks) who rarely make mistakes and always get lots of praise from their customers. You start your shift and it is an exceptionally slow day; there are hardly any customers at all. Your co-worker receives an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. Your co-worker refrains from adding chopped peanuts to the dish, but forgets to use a non-peanut oil to cook the food in. The customer eats the dish and becomes extremely ill and is rushed to the hospital. Following protocol, your supervisor suspends this employee immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I feel that this was an appropriate outcome to the situation.
2.	Your co-worker should take total and complete responsibility for this accident.
3.	I feel that this was too drastic of a response to the incident. (r)
4.	I feel this was clearly a mistake and not simply carelessness on the part of the employee.

5.	I would be devastated if I had done this.
6.	I would have a very hard time coping with this event if I had done this.
7.	I would be comfortable returning to work after this event if I had done this. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

### Appendix I - Moderate Error Vignette/Employee Perspective/Internal Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very competent co-workers (also cooks) who rarely make mistakes and always get lots of praise from their customers. You start your shift and it is an exceptionally slow day; there are hardly any customers at all. You receive an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. You refrain from adding chopped peanuts to the dish, but forget to use a non-peanut oil to cook the food in. The customer eats the dish and breaks out in hives and is very angry. Following protocol, your supervisor suspends you immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I feel that this was an appropriate outcome to the situation.
2.	As the employee, I would take total and complete responsibility for this accident
3.	I feel that this was too drastic of a response to the incident. (r)
4.	As the employee, I feel this was clearly a mistake and not simply carelessness or my part.

5.	As the employee, I would be devastated if I had done this.
6.	As the employee, I would have a very hard time coping with this event.
7.	As the employee, I would be comfortable returning to work after this event. (r)
8.	I feel this incident should have been resolved more leniently. (r)
9.	I feel that there may have been external factors that should have been considered in resolving this issue. (r)

### Appendix J - Moderate Error Vignette/Co-worker Perspective/Internal Attribution Scenario

Please read the following scenario and then answer the subsequent questions based on how you	
would feel as the co-worker of the employee being discussed in the scenario.	

You work as a cook at a local restaurant. You enjoy your job and have never made any serious mistakes. You work with several very competent co-workers (also cooks) who rarely make mistakes and always get lots of praise from their customers. You start your shift and it is an exceptionally slow day; there are hardly any customers at all. Your co-worker receives an order with explicit instructions to avoid any peanut items, as the individual who ordered it is allergic. Your co-worker refrains from adding chopped peanuts to the dish, but forgets to use a non-peanut oil to cook the food in. The customer eats the dish and breaks out in hives and is very angry. Following protocol, your supervisor suspends this employee immediately.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	I feel that this was an appropriate outcome to the situation.
2.	Your co-worker should take total and complete responsibility for this accident.
3.	I feel that this was too drastic of a response to the incident. (r)
1.	I feel this was clearly a mistake and not simply carelessness on the part of the employee.

5	I would be devastated if I had done this.
6	I would have a very hard time coping with this event if I had done this.
7	I would be comfortable returning to work after this event if I had done this. (r)
8	I feel this incident should have been resolved more leniently. (r)
9	I feel that there may have been external factors that should have been considered in resolving this issue. (r)