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QUANTIFYING CRISES' EFFECTS ON ORGANIZATIONAL REPUTATION

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Abstract

Crisis communication research has been significantly advanced over the past 50 years with models and theories. But it lacks a method for assigning objective, numerical values to how severe a crisis is on an organization's image and the organization's likelihood to survive the crisis. The Crisis Score is the first model to attempt to fill this gap. However, the Crisis Score has been developed strictly from practice and has not been compared to literature in the crisis communication field. In a first attempt to validate this model by testing it against theory, this study utilized a 3 x 2 mixed factorial design with participants recruited from mTurk to determine the effects of brand (prior reputation and crisis history), cause (if crisis was caused by intentional act), and impact (damage inflicted to external stakeholders) on attitudes, purchase intentions, perception of crisis responsibility, and organizational reputation. Repeated-measures ANOVAs were conducted and findings suggest that a good brand, low cause, and low impact yield better attitudes, purchase intentions, organizational reputation, and less perceived crisis responsibility, than a bad brand, high cause, and high impact, respectively. Results contribute to crisis communication literature by reinforcing findings from previous studies and revealing new results that show the Crisis Score has potential to become a useful addition to crisis communication scholarship and practice.

Keywords: Crisis communication, Crisis Score, attribution theory, image repair theory, situational crisis communication theory, SCCT

Chapter 1. Introduction

In today's era of computers, widespread Internet availability, and digital media the world is moving at a faster pace than ever before. The news is not consumed strictly through newspapers, local radio stations, and three television networks. People can get the news whenever they want and often learn of crises and large scale events minutes after the events occur. Public relations (PR) professionals no longer have the luxury of time to craft a message following a crisis. Previous to the digital age, an organization had one hour to examine their situation, discuss options, and then act before having to address the media or public. Today, however, there are watch groups, citizen journalists, and people with the capability to post what is happening instantly, to almost the entire world. This new dynamic, brought on by digital and social media, has made PR professionals' and crisis communicators' jobs more challenging. Therefore, it is important to continue developing crisis communication through theory building and practical training.

This study was conducted to both improve the study of crisis communication theories and the tactical abilities of crisis communication practitioners in the field by refining and testing a revolutionary crisis communication model that is able to objectively assign numerical values to crises on a scale of 1-100 to reveal how difficult the crises will be to overcome.

Background of the Study

Crises are a commonly occurring phenomenon in today's world. Notable recent examples include Toyota's acceleration issue, General Motor's 2014 ignition switch problem, Penn State University's sexual abuse cover up, and natural disasters like

Superstorm Sandy on the East Coast of the United States and the tornadoes that wreaked havoc on Moore, Oklahoma (Hill, 2016; Ulmer, Sellnow, & Seeger, 2014, p. 3).

In this study, crisis was defined as a major occurrence that has potential to negatively affect an organization and its publics. Crises were addressed from the aspect of organizational image and reputation; in essence, how difficult crises are to overcome for an organization. With the increased variety of television news programs, and even more recently, digital media, it is becoming more important for companies to quickly react to crises. There are always groups watching, and they are equipped with the tools necessary to immediately share that information with the world (Hill, 2015b; Sellnow & Seeger, 2013). Current means of receiving news results in stakeholders receiving the information they want, when they want. Therefore, crisis communication experts must adapt to meet these new demands (Sellnow & Seeger, 2013).

To observe this constant demand for information in action, one can look to the increased speed in mass media reporting (Murray, 2017, p. 9), the growth in liability lawsuits (Mergenhagen, 1995; Settle & Spigelmyer, 1984), dependency theory and social media (Mazer et al., 2015), and the impact of crises on financial status, social status, and reputations (Herrero & Pratt, 1996). Crisis communication has been studied and practiced by a diverse group of people including those in the fields of medicine, sociology, psychology, engineering, logistics, political science, criminal justice, communication, and mathematics. These scholars and practitioners have greatly advanced the field of crisis communication (Sellnow & Seeger, 2013, p. 2), but these differing approaches have led to disjointed literature on the subject (Coombs, 2009, p.

103). Despite the abundance of literature on crisis communication, there is a lack of any model or system of measurement for evaluating and scoring the magnitude of an organization's ability to recover from a crisis.

Early crisis communication research was centered around learning lessons from case studies and advice given from practitioners (Coombs, 2015; Seeger, Sellnow, & Ulmer, 1998; Witkemper & Pritchard, 2007). Although the development of literature in this field has been somewhat disorganized (Coombs, 2009, p. 103), in the past 20 years, the crisis communication field has developed practical models that reflect the accrual of systematic knowledge (Coombs, 2015; Seeger et al., 1998; Witkemper & Pritchard, 2007). These models, such as image restoration theory and situational crisis communication theory (SCCT) have improved practitioners' and scholars' ability to assess crises and apply the best corrective measures to reduce or eliminate the impact on the affected company's image. Based on characteristics of the crisis, these models propose different response strategies (Coombs, 1999; Ulmer et al., 2014, p. 27). But no model has the ability to empirically evaluate the severity of a crisis on an organization's image, and therefore evaluate how difficult a crisis will be to overcome (Coombs, 1995, 2007, 2015; Herrero & Pratt, 1996; Hill, 2017; Seeger et al., 1998; Witkemper & Pritchard, 2007). With the aforementioned constant flow of information to people today, having the ability to objectively determine how bad a situation an organization is in during a crisis will be a game changing force in the crisis communication field. By evaluating each part of the Crisis Score, this capability will enable organizations to strategically assess what portion of the crisis is causing the most harm so that it can place resources where they will be most effective.

In 2010, Dan Hill, founder and CEO of Hill Impact, a communications and government affairs firm out of Washington, D.C., identified the lack of a practical way to quantitatively evaluate the severity of crises on a company's reputation. Hill, using his 20+ years of crisis communication experience, developed the Crisis Score. The Crisis Score is a model consisting of three sections that are subdivided into 15 attributes that Hill claims will reveal how difficult a crisis will be to overcome. Each attribute is weighted differently and Hill uses the Crisis Score to assign crises a number between 1 and 100; any situation that scores below a 50, according to Hill (2017), is not a crisis and anything with a score greater than 80 has an increased likelihood to have a permanent effect on the company's reputation and future success. With these numbers, public relations and crisis communication practitioners will know where to best focus their efforts.

Currently, there are a few problems with the Crisis Score. First, the Crisis Score was developed solely from Hill's experience. Practical experience is extremely valuable, but it lacks the accumulation of knowledge that can be obtained from studying theories and utilizing the scientific method. Additionally, the Crisis Score is calculated based on Hill's insight alone and no testing has been done to show that the weights assigned to each attribute is accurate, or that the categories he uses are appropriate. The outcome of a crisis run through the Crisis Score is subject to Hill's interpretation. The Crisis Score should be tested and defined in a way that yields consistent results no matter who uses it.

As Sellnow and Seeger (2013, p. 243) said, those who study and advance theory have an obligation to translate their findings into useful recommendations for crisis

communication practitioners. The opposite is also true; practitioners should share their findings and collaborate with those in academia. The pursuit of knowledge should be a joint effort between those in the academic world and those who practice. The Crisis Score is a unique opportunity to combine both worlds to the benefit of each. The intent of this study was to help both practitioners and academia by developing the Crisis Score model in a way that advances theory and helps practitioners in their day to day work.

Problem Statement

The field of crisis communication currently has no methods of empirically scoring crises. Such a model is unprecedented and can help theory and practice in many ways. The Crisis Score is the answer to this problem and has potential to be a groundbreaking tool in the crisis communication field. However, it first needs to be vetted through academic literature and theory to ensure that Hill's formulation is aligned with what scholarly research suggests. Additionally, the Crisis Score needs to be empirically tested to show that it can accurately measure what it intends to measure, that is, how difficult any given crisis will be to overcome. This study aimed to examine these two issues with a thorough literature review and experiment. The guiding research questions were: 1) What concepts of crisis determine how difficult the crisis will be for an organization to overcome, and 2) how much impact does each concept have?

Professional Significance of the Study

The implications of this study are two-fold. The Crisis Score has the potential to improve the crisis communication field theoretically and in practice. From a theoretical perspective, Avery's (2010) quantitative review of crisis communication research

indicated that the crisis communication field will benefit from the study of theory and practice when it gains more diverse and methodological approaches, which is exactly what the Crisis Score does (p. 192). Coombs (2009) recommends that scholars start testing prescriptive theories of crisis communication instead of speculating on descriptive theories that have no tested basis (p. 113). The Crisis Score is the first model to create a system that assigns numerical values that score how difficult crises will be to overcome. When the Crisis Score is shown to be a reliable instrument by vetting it through academic literature and testing, it can become a leading research tool that greatly assists crisis communication practitioners and scholars.

Theory development. The Crisis Score will add to theory development by making it possible to compare crises to one another. With the ability to place a numerical score that rates a crisis, scholars can objectively compare case studies. Additionally, the different components of the Crisis Score can be compared between crises to learn more about how the different components of crises interact. This capability will allow scholars to improve existing theories and to develop better ones.

Earlier it was mentioned that because such a variety of fields are involved with crisis communication study, the literature is somewhat disjointed. Coombs (2015) asserts that there have been many case studies of crises, but the predictive value of theories need to be tested (p. 471). The Crisis Score has potential to be a tool that can examine these models and theories from different areas of study to discover where they agree, where they diverge, how they can be used to further the development of more comprehensive crisis communication instruments, and be used to determine their predictive value. By running a past crisis through the Crisis Score and obtaining values

for the different causes for the crisis, other models and theories can be compared for where they accurately assess the attributes of the crisis and where they do not. These models and theories can then be revised, combined, and eliminated where necessary, to improve the research field.

Furthermore, scholars will be able to compare and contrast different aspects of crisis communication efforts of companies within and between specific industries. Having this capability, for example, can help scholars learn that, going into crises, car manufacturers tend to have positive reputations, but food manufacturers' reputations are low (situation hypothetical). With this knowledge, researchers can ascertain how beneficial those positive reputations are for companies in the car industry, and determine why food manufacturers vary and if it is important that they improve that attribute.

Informing practice. With the Crisis Score, crisis communicators will be able to assess the damage done to their clients' reputations more accurately, helping them prescribe the best responses to return their clients' companies back to "normalcy" (Herrero & Pratt, 1996, p. 82). For example, if the CEO of an organization does not want to spend any extra time or resources toward a crisis, the organization's PR professional can show the CEO that the crisis is actually an 80 out of a 100, much worse than the CEO gave the crisis credit for. Then the PR professional can advise the CEO on the best crisis response, determined by the section of the Crisis Score that shows the largest threat.

The Crisis Score can also be used by professionals and journalists to objectively report crises to the public. In this instance, by reporting a numerical value that explains

how serious a politician's scandal is, a journalist will have more tangible ways to report and analyze the crisis.

Last, the Crisis Score can be used as a tool to help organizational leadership create proactive plans that prevent future crises (Coombs, 1998; Fearn-Banks, 2001). From a crisis response and crisis communication perspective, prevention is the ideal outcome of any crisis communication plan (Coombs, 2009, p. 105). By dissecting historical crises and objectively analyzing them with the Crisis Score, new insights will be gained to help crisis managers prevent and minimize the damage from future crises.

Overview of Methodology

This experiment employed a 3 (category: brand/issue/impact) x 2 (magnitude: high/low) mixed factorial design. Exposure to crisis scenarios with attributes of brand, cause, and impact were manipulated within subjects, and magnitude of the categories was manipulated between. Each participant read one news story for each category in either the high or low condition, for a total of three messages. Independent variables were brand, cause, and impact. Dependent variables were attitude, purchase intentions, perceptions of responsibility, and organizational reputation.

Conclusion

The remainder of this study includes a literature review where the prevalent theories that help explain the concepts of the Crisis Score were examined, followed by a detailed view of each section of the Crisis Score, followed by the study's hypotheses. Then the methodology section explained the methods used to conduct this study, followed by a discussion of the findings.

Chapter 2. Review of the Literature

A broad overview of the literature that defines the crisis communication field will provide a starting point for this study. This chapter will begin with defining crisis and will then explain why crisis communication theories are important. Then it will explain the dominant theories of crisis communication today and how they compare to the Crisis Score. Next will be a more targeted examination of the Crisis Score, pointing out where the literature supports and opposes its concepts. The chapter will conclude with hypotheses that will guide the study.

Crisis Defined

There is no standard definition for crisis, but most definitions of crisis share a common theme around an event that causes harm and/or uncertainty (Coombs, 2010, p. 18). The Federal Emergency Management Agency (FEMA) has formed criteria for disaster declaration that include the amount of damage, concentration of damage, impact on infrastructure, insurance coverage, state and local government resources, and frequency of disasters in the area (FEMA, 2017)(Ulmer et al., 2014, p. 4).

The Public Relations Society of America's (2016) definition of crisis can be observed from its definition of crisis communication, which is protecting and defending organizations that face public challenges to its reputation.

Crises are major occurrences that have potential to negatively affect an organization and its publics. In worse case scenarios, a crisis will threaten an organization's existence (Fearn-Banks, 2001, p. 480). Crises are unanticipated events that disrupt norms, cause uncertainty, and threaten high priority goals (Sellnow & Seeger, 2013). Coombs and Holladay (2002) said crises are events that are

unpredictable and cause disruptions to an organization. In this study, the Fearn-Banks definition was used, and crisis was defined as a major occurrence that has potential to negatively affect an organization and its publics.

Because of the numerous fields that study crisis communication and the various approaches that are taken (discussed in Chapter 1), it has been difficult to integrate research and the practice of crisis communication (Pearson & Clair, 1998, p. 59). Creating an all-encompassing model that considers the most important aspects of crises and crisis communication from the perspective of all those disciplines will create an environment suitable for better theory development and improvement for practical uses.

Additionally, because crises are unpredictable, forming solid foundational frameworks for theorizing crisis communication is difficult (Coombs & Holladay, 2002; Sellnow & Seeger, 2013). This uncertainty with which crises occur makes it challenging to create systematic methods to quantify its different attributes (Ulmer et al., 2014, p. 8). One feature that aids in the study of crises is that they occur often, making them good targets for studying patterns that help scholars and practitioners learn to categorize, predict, prevent, and recover from them.

Crisis communication theories have been developed to address different problems. Some theories are intended to soften blows to corporate images while others emphasize lowering perceived responsibility for crises by using situation specific response strategies so that they can rebuild and continue to be profitable (Benoit & Dorries, 1996; Ulmer et al., 2014, p. 27). Others deal with issues such as handling product recalls or evacuations during natural disasters (Sellnow & Seeger, 2013, pp. 2–3). Another approach to crisis communication is studying how publics/stakeholders

respond to crises. Knowing how they respond can help researchers and practitioners better understand the publics' communicative behaviors so crises can be framed in a way that will result in less damage to the organization's image (Lee & Kim, 2016, p. 35).

Purpose of Study/Study Rationale

The study of crises has progressed for decades, stemming from studies as early as the 1970s (Witkemper & Pritchard, 2007, p. 9). Through this past half century, crises have been studied in a variety of ways. Trying to improve business, practitioners developed frameworks that revealed patterns and helped to plan for future events. Eventually, this approach emerged into formal case studies, which are still the dominant method for studying crises today (Sellnow & Seeger, 2013, p. 3). Since then, crisis communication scholars, including Coombs (2009) and Sellnow and Seeger (2013) have called for more scholars to join forces to refine and develop theories. Their goal is to help bridge the gap that has formed from the disjointed knowledge assembled from scholars and practitioners representing different professions (Coombs, 2007, 2009, p. 103). Because crisis communication theory construction has grown so significantly since the 1970s, the task of unifying research is even more important (Sellnow & Seeger, 2013, p. 22).

According to Sellnow and Seeger (2013), theories are fundamental tools which can be used to gain broader understanding of how processes work, helping researchers to identify causal actions. Theories also help explain phenomena people cannot otherwise explain, such as why people talk on cell phones or shoot live video during crises (Hill, 2015b; Mazer et al., 2015). Theories help to predict outcomes. More

accurate means of predicting crisis communication outcomes will be useful to a crisis communicator. For instance, they may be able to predict that not quickly addressing the necessary stakeholders will result in those stakeholders receiving misinformation from other sources during a time of crisis, ultimately damaging the company that is in crisis (Hill, 2015b). Additionally, by informing practice, theories help control behavior. In the previous example, thanks to theory, the crisis communicator knew that stakeholders needed to be provided with their informational needs in a timely matter, helping to control anxiety levels and the likelihood of panic. Last, theories guide research by serving as a catalyst for the generation of new areas of study, leading to new theories. As new theories are developed, other theories will be strengthened or shown to not be supported, improving knowledge in the field (Sellnow & Seeger, 2013, pp. 15–17).

According to Sellnow and Seeger (2013), “there is a critical need” for the development of wide ranging theoretical frameworks to predict and explain crises and to improve crisis communication practice (p. 4). The Crisis Score could be the next step in this development. The Crisis Score is the first model that can produce an objective numerical rating/score to determine how difficult a crisis is for an organization to overcome (Hill, 2015b). Having a method to quickly rate a crisis at any point in time is becoming more necessary with the changes in how people consume news (Hill, 2015b; Sellnow & Seeger, 2013). With the invention of digital and social media, people are learning of crises more quickly than ever before (Hill, 2015b). This means that public relations and crisis communication practitioners need a way to quickly gauge how serious a crisis is so they can quickly ascertain the best response method (Benoit, 2015; Coombs, 1998; Fishman, 1999; Hill, 2015b).

The biggest issue with the Crisis Score is its lack of theoretical backing. To address this concern, this study identified similarities and differences between theory and the Crisis Score, then tested it with an experiment. Next is an overview of the Crisis Score.

The Crisis Score

The Crisis Score is a model designed to objectively evaluate crises on a numerical scale. Any event that scores below a 50 is not a crisis, and any event that scores higher than 80 has a chance of causing permanent damage to an organization's reputation and survivability. Hill (2017) defines the Crisis Score as a measure of "how difficult the crisis is to overcome" in regard to a company's brand, image, or reputation. This is a unique way to evaluate crises, but has similarities to the concepts scholars use. These comparisons will be discussed later in the literature review.

Crisis Score definitions. The Crisis Score is divided into three categories: institution/individual, issue, and impact. These three categories are subdivided into a total of 15 different sections. Based on his experience, Hill (2015a) assigned weights of 40% to the institution/individual category, 50% to the issue category, and 10% to the impact category. See Figure 1.

Institution/Individual. The first section of the Crisis Score is institution/individual. This category of the Crisis Score evaluates how strong the organization's image is and its crisis history. Hill noted that certain individuals, including celebrities, politicians, and other people who are in the public eye, have a brand similar to organizations and therefore face the same issues from crises (Hill, 2015b). To improve the flow of reading, organization was used in place of institution,

individual, organization, and company, when referring to this concept of the Crisis Score.

| Institution/Individual | Weight |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <ul style="list-style-type: none"> – Profile – Reputation – Pattern – Sector/profession | 40 |
| Issue | |
| <ul style="list-style-type: none"> – Cause <ul style="list-style-type: none"> • Willfulness • Negligence • Incompetence – Effect <ul style="list-style-type: none"> • Physical • Financial • Environmental • Inconvenience • Insensitivity | 50 |
| Impact | |
| <ul style="list-style-type: none"> – Internal – Stakeholders – Public | 10 |

Figure 1. Crisis Score (Hill, 2015a)

Institution/individual is divided into profile, reputation, pattern, and sector/profession subsections. Profile addresses how well-known the organization is among its stakeholders. Reputation is how favorable the organization is looked upon by the public (Hill, 2015b). Pattern is an organization’s history of having the same type of crisis or problems that lead to a crisis (Hill, 2015b). Sector/profession denotes what profession or business sector the institution or individual is in. Examples include technology, airline, nonprofit, law enforcement, media, politics, etc. (Hill, 2017).

Issue. The second section in the Crisis Score is issue. Issue is divided into the cause and effect of the actual crisis or disaster. Cause consists of an organization's willfulness, negligence, and incompetence to the extent they are causal factors in initiating a crisis. It is an evaluation of how culpable an organization is for the original crisis/trigger event. Hill (2015b) defines willfulness as a crisis triggered by a purposeful act. Negligence occurs when a crisis is prompted by an accidental act. A crisis initiated by an action that resulted from improper training is labeled incompetence.

Effect addresses the type of harm that occurs from the crisis. It is broken down by whether a crisis caused physical damage, financial damage, environmental damage, inconvenience, or was a display of insensitivity.

Impact. The impact section of the Crisis Score examines how much damage a crisis inflicts. Originally, this section was more specific about addressing numbers of fatalities and the cost to repair damage. But over time, Hill (2017) evolved the impact section into a more general, three-part category: internal, stakeholder, and public. He maintains that damage done to personnel internal to the organization will affect the organization less than damage done to stakeholders, which will affect the organization less than damage done to the public.

Hill has identified many concepts that align with crisis communication literature. However, there are many cases where Hill uses different words to identify common concepts that are labeled differently in the literature. Other times, concepts are similar, but not exactly equivalent. Those instances have been noted throughout the

literature review. Following is a review of the prevalent theories that are relevant to the Crisis Score.

Attribution Theory

There are many ways of classifying different attributes of crises (Coombs, 1995). One angle crisis communication takes is altering how people view attribution dimensions as explained in attribution theory (Coombs, 1995; Russell, 1982; Weiner, Perry, & Magnusson, 1988; Wilson, Cruz, Marshall, & Rao, 1993). Attribution theory suggests that people systematically, even if unknowingly, make judgments about why others do what they do (Sellnow & Seeger, 2013, pp. 91–92). People tend to judge events based on three categories; locus, stability, and controllability (Coombs, 1995). In particular, locus and controllability are relevant to the Crisis Score. Locus classifies events as taking place inside (internal) or outside (external) the organization. Controllability measures whether the company has control over the crisis or if the crisis is outside the company's control. Stability refers to whether the cause of the crisis is always present or changes over time (Coombs, 1995, 1998; Russell, 1982; Wilson et al., 1993).

Although attribution theory focuses on interpersonal communication, Coombs (1995) expanded it to organizational communication in situational crisis communication theory (SCCT) (Sellnow & Seeger, 2013, p. 92). Of particular interest is how Coombs (1995) focuses on the locus and controllability portions of attribution theory in the crisis type matrix (Table 1), which places crises in categories of either internal or external (loci of control) and intentional or unintentional (controllability) actions.

Internal means the act was caused by the organization or someone in the organization, and external accounts for acts caused by an entity outside of the organization. Intentional is an act caused purposefully and unintentional is an act not committed on purpose.

Table 1
Crisis type matrix Coombs (1995)

| | Unintentional Controllability | Intentional Controllability |
|----------------|-------------------------------|-----------------------------|
| External Locus | Faux Pas | Terrorism |
| Internal Locus | Accidents | Transgressions |

Image Repair Theory

Image repair theory attempts to explain communication in terms of responsibility to an organization (Sellnow & Seeger, 2013). It focuses on repairing damage to the accused’s image, accounts for the actions that caused the crisis, and emphasizes communication management strategies (Ulmer et al., 2014, p. 27). Benoit originally labeled this theory as image restoration, but over time, decided it was not always possible or even desirable for an organization to restore its image. So, Benoit (2000) coined the term *image repair* (p. 40). However, scholars still use image restoration and image repair interchangeably in the literature today (Avery et al., 2010; Coombs, 2009; Koerber & Zabara, 2016).

Image repair theory assumes communication is a goal-directed activity that aims to keep a positive reputation for the organization by asking what accusations threaten the organization’s image and who the most important audiences are (Benoit, 2013, p. 436). It is important to understand who the stakeholders are because these publics will be who ultimately confirms credibility of what the organization says in its image repair efforts (Sellnow & Seeger, 2013, p. 168). Theorists and practitioners have applied

image repair theory to many different crises (Benoit & Czerwinski, 1997). According to image repair theory, there are five different crisis response strategies: 1) denial is claiming the organization is not involved; 2) evading responsibility is the act of reducing or eliminating the organization's responsibility for the crisis; 3) reducing offensiveness is an attempt to make the crisis seem not as serious; 4) corrective action is attempting to return everything to normal like it was before the crisis or to take some action to prevent the crisis from happening again; and 5) mortification is the act of accepting responsibility for the crisis and asking for forgiveness. See Table 2 for details (Coombs, 2009, pp. 108–110; Sellnow & Seeger, 2013, p. 169).

Table 2
Benoit's (1995) image restoration strategies

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Denial | Simple denial: there is no crisis Shift the blame: so other agent is responsible for the crisis, not the organization |
| 2. Evading Responsibility | Provocation: crisis was a result of response to someone else's actions Defeasibility: lack of information about events leading to the crisis situation Accidental: lack of control over events leading to the crisis situation Good intentions: organization meant to do well |
| 3. Reducing Offensiveness | Bolstering: remind stakeholders of the organization's positive qualities Minimize: try to reduce the perceived offensiveness of crisis by saying it was minor Differentiation: try to reduce offensiveness of crisis by comparing act to similar, more serious ones Transcendence: place act in a different, more favorable context Attack accuser: attack those who claim a crisis exists Compensation: organization offers money or goods to victims |
| 4. Corrective Action: | Organization tries to restore the situation to pre-act status and/or promise change and prevent a repeat of the act |
| 5. Mortification: | Organization admits responsibility, asks for forgiveness, and expresses regret |

Additionally, according to image restoration theory, a company is not facing a crisis to its image unless it is being accused of an offensive act and is being held responsible for the act. More specifically, perception is reality when it comes to crisis responsibility. It is less important that a company committed an act than if it is believed by relevant audiences that the company committed it. Similarly, the relevant stakeholders must believe the act to be offensive, regardless of how offensive it is to others (Benoit, 1997, p. 178).

SCCT

Situational crisis communication theory (SCCT) is another popular theory in the crisis communication field (Avery et al., 2010; Coombs, 1995; Hill, 2015b; Kim, Park, Cha, & Jeong, 2015; Liu, Kim, & Pennington-Gray, 2015; Sellnow, 2013; Xu & Li, 2013). Using attribution theory as a starting point, SCCT identifies crisis response strategies with the idea that stakeholders will attribute crises to certain causes (Coombs, 2009, pp. 109–110). The more stakeholders attribute control of a crisis to an organization, the higher the level of responsibility the stakeholder places on the organization (Coombs, 1995; Coombs & Holladay, 2002). From this idea of attribution, Coombs (1999) developed a list of crisis response strategies. Those strategies are deny, diminish, rebuild, and bolstering.

Deny involves removing any association between the organization and the crisis. The diminish approach consists of reducing the level of involvement the organization has with the crisis. Rebuild takes an active approach to correcting damage and improving relationships with stakeholders. Instead of being a fourth response strategy, bolstering is considered to be a supplemental approach to deny, diminish, and rebuild.

Bolstering is for organizations that have strong relationships with their publics at the onset of crisis (Coombs, 2009, p. 110).

SCCT uses three elements to gauge a crisis's reputational threat: crisis type, the organization's crisis history, and the organization's prior reputation. Coombs and Holladay (2002) identified three crisis types, or clusters (victim, accidental, and intentional), that most crises fall into (see Table 3 for explanation of each). Each crisis cluster produces a predictable amount of responsibility an organization usually has resulting from a crisis. As can be seen from Table 3, as a crisis type moves from victim, to accident, to preventable (preventable replaced intentional), the amount of responsibility placed on the organization increases. The crisis type is the starting point for determining reputational threat (Coombs, 2004b, 2009, p. 111; Coombs & Holladay, 1996).

Table 3
Crisis Types and Level of Crisis Responsibility (Coombs, 2009)

| |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Victim Crisis: Minimal Crisis Responsibility Natural disasters: acts of nature such as tornadoes or earthquakes Rumors: false and damaging information being circulated about your organization Workplace violence: attack by former or current employee on current employees on-site Product tampering/malevolence: external agent causes damage to the organization</p> |
| <p>Accident Crises: Low Crisis Responsibility Challenges; stakeholder claims that the organization is operating in an inappropriate manner Technical error accidents: equipment or technology failure that cause an industrial accident Technical error product harm: equipment or technology failure that cause a product to be defective or potentially harmful</p> |
| <p>Preventable Crises: Strong Crisis Responsibility Human-error accidents: industrial accident caused by human error Human-error product harm: product is defective or potentially harmful because of human error Organizational misdeed: management actions that put stakeholders at risk and/or violate the law</p> |

An organization's crisis history and prior crisis reputation aid the crisis type in ascertaining reputational threat. Companies that have experienced prior crises are more likely to suffer reputational damage than those that have not (Coombs, 2004a; Coombs & Holladay, 2001, p. 323). A larger crisis history will make it more likely that stakeholders will treat a crisis in the victim category as one in the accident category, and will treat accident type crises like they are intentional. In effect, a larger crisis history will increase the perception of the size of the crisis (Coombs, 2004a, 2004b). However, an organization with a good prior reputation could be shielded from the negative effects of a crisis, known as the halo or shield effect (Coombs & Holladay, 2006, p. 127). The halo effect is contested, and will be discussed in the institution/individual section below.

Based on the reputational threat assessments (crisis type, history, and prior reputation), SCCT recommends differing response strategies. As reputational threat increases, SCCT recommends more accommodative responses. Accommodation is the degree to which a response focuses on the victim and the organization accepts responsibility for the crisis (Coombs & Holladay, 2004).

Contingency theory uses a different continuum that works in a similar fashion. This continuum is on a scale from pure advocacy to pure accommodation (Cancel, Mitrook, & Cameron, 1999, pp. 172–173). Advocacy is when an organization defends and pleads the case of an organization. Accommodation (in this continuum) is defined as building trust with the public (Cancel, Cameron, Sallot, & Mitrook, 1997, pp. 35–36). Put another way, pure advocacy is when an organization does everything it can to meet its own needs and goals, whereas pure accommodation is when the organization willingly considers the public's needs and goals (Shin & Cameron, 2005, p. 319). Based on contingent factors developed by Cancel et al. (1997), organizations can select a stance on the pure advocacy—pure accommodation continuum.

Both these continua are important. By examining studies to compare where on the continua responses are given for different situations, SCCT response strategies and contingency theory stances can be walked backward to determine what characteristics are more detrimental to organizational reputation. For example, rebuilding strategies are most accommodative to external stakeholders. So, when viewing a study on an organization that successfully used this response strategy, it would suggest that the particular combination of crisis type, crisis history, and prior reputation present a relatively high level of reputational threat. Conversely, an organization that

successfully used a denial strategy probably experienced a much lower level of reputational threat across crisis type, crisis history, and prior reputation (Coombs, 2009, p. 111).

SCCT also addresses crises' effects on stakeholder emotions. In particular, anger's effect on stakeholder emotions is of interest because anger works similarly to attributions of crisis responsibility; as the amount of crisis responsibility increases, the level of stakeholder anger increases as well (Coombs & Holladay, 2005). An angry stakeholder will speak poorly of an organization, which results in reduced purchase intentions and a lower brand assessment (Brown & Reingen, 1987, p. 350; Laczniak, DeCarlo, & Ramaswami, 2001, p. 57).

As mentioned above, SCCT organizes crisis response strategies into different categories that are either intended to change the perception of the crisis or the perception of the organization in crisis. What is applicable to this study is not the responses as much as the implications that the responses suggest. The responses make assertions about how severe certain types of crises are.

The Crisis Score

Hill (2017) defined the purpose of the Crisis Score as a measure of “how difficult the crisis is to overcome” in regard to the company's brand, image, or reputation. Although there are no studies that conceptualize a dependent variable in this way, many studies have addressed this idea using different terms. Organizations will overcome crises better when their reputations are not greatly damaged and the public's trust is not lost. One popular measure is what Coombs and Holladay (2002, 2006) refer to as *organizational reputation*. When Coombs and Holladay measure organizational

reputation, they use the character portion of McCroskey's (1966) Ethos Scale.

Character in this scale is conceptualized by intention, goodwill, and trustworthiness (Coombs & Holladay, 2002, p. 174; McCroskey, 1966, p. 67).

In a discussion about how crisis communication research has been limited because of the lack of clear conceptual definitions for dependent variables, Fediuk, Pace, and Botero (2010) make an interesting distinction between using *reputation* and *damage to reputation* as dependent variables (pp. 228-230). Fediuk et al. (2010) get to Hill's intentions when they say, "The dependent variable, as it should be conceptualized in crisis studies, would more accurately be stated as the harm induced on the organizational reputation due to the crisis incident" (p. 229).

Attitude and *purchase intentions* are two more concepts related to Hill's (2015b) goal of the Crisis Score. Hill wants to enable organizations to measure how difficult it will be to rebound from a crisis, and many scholars have acknowledged the importance of attitudes and purchase intentions as outcome variables in how an organization has fared from a crisis. Brown and Reingen (1987) studied word of mouth's effect on consumers' attitudes and behaviors. Laczniak et al. (2001) studied negative word of mouth's effect on attitudes toward the brand. Lyon and Cameron (2004) evaluated crisis response and reputation's effects on attitudes and purchase intentions. VanSlyke Turk, Jin, Stewart, Kim, and Hipple (2012) examined reputation, crisis response, and CEO visibility's effects on attitude and purchase intentions.

Perceptions of crisis responsibility is another important outcome variable. Attribution theory and SCCT, both discussed above, address how people make judgments of others' actions and assigns responsibility to them (Coombs, 1995;

Coombs & Holladay, 2002; Sellnow & Seeger, 2013). The previous discussion on both theories reiterated how important peoples' perceptions of organizations are.

Based on these observations, the dependent variables for this study were attitude, purchase intentions, perception of crisis responsibility, and organizational reputation.

Institution/Individual. The first section of the Crisis Score is the institution/individual section and accounts for “who or what organization is involved” (Hill, 2015b) and is divided into profile, reputation, pattern, and sector/profession subcategories.

Profile and reputation. Profile addresses how well-known the institution or individual is among its stakeholders. Reputation is how favorable the individual or institution is looked upon by the public (Hill, 2015b). Hill's idea of reputation is more congruous with what Coombs and Holladay (2002) call prior reputation. Prior reputation is similar to organizational reputation, which was mentioned earlier, drawn from the character portion of McCroskey's (1966) Ethos Scale. The difference between prior reputation and organizational reputation is when it is measured. Prior reputation is the organization's reputation leading up to the crisis and organizational reputation is the reputation following a crisis.

There is a great deal written about the concepts that make up the Crisis Score's institution/individual category, particularly on reputation (Coombs, 2009; Coombs & Holladay, 1996, 2002, 2006; Davies, Chun, Vinhas da Silva, & Roper, 2003; Fediuk et al., 2010). The concepts of profile and reputation seem to overlap. Hill (2017) distinguishes between profile and reputation by what the stakeholders think about the

organization and what the public thinks about the organization, respectively. However, according to Davies et al. (2003), image is the view of a company from the perspective of the stakeholders external to an organization and reputation is the collective view of all stakeholders (both internal and external to the organization) (p. 61). For this study, Hill's concepts of profile and reputation were combined.

Reputation attracts employee talent, results in more positive media stories, improves job satisfaction, motivates employees, and has many other benefits (Alsop, 2004, p. 10; Davies et al., 2003). Coombs and Holladay (2006) and VanSlyke Turk et al. (2012) also say that a good prior reputation can protect organizations during crises, although it works best for those with particularly good reputations (p. 134). (VanSlyke Turk et al., 2012)

According to Ulmer, et al. (2014), a long history of success builds a reserve of goodwill, credibility, and a reputation that will help companies overcome crises (pp. 141-142). In addition to reputation, the mention of a long history of success parallels Hill's (2015a) pattern concept. This idea of good reputation and history (pattern) stems from Aristotle's virtue ethics that proposes that people are predictable in their honesty; if they were honest before, they will be honest in the future (Ulmer et al., 2014, p. 222). This idea of predictability mirrors the Crisis Score because it suggests if an organization has been honest before, there is no reason to believe it will not continue to be.

Coombs (2007) also uses the metaphor of a buffer that shields a company from reputational loss during a crisis (p. 165). The better the prior reputation (buffer), the bigger the crisis a company can withstand and maintain a favorable organizational reputation instead of destroying the company.

Some scholars have studied the halo effect, which claims organizations with good reputations and history will cause others to see their grievances as less negative (Ulmer et al., 2014, p. 222). VanSlyke Turk et al. (2012) conducted an experiment that examined corporate reputation, response type, and CEO's presence immediately following a crisis. The study found that perceptions of organizations after a crisis were better for companies that had a good prior reputation. However, others claim there is only limited support for the halo effect (Coombs, 2009, p. 112). Similar to the halo effect is the belief that a poor prior reputation yields a more negative perception of an organization while in a crisis. This is called Velcro effect because bad reputations are said to stick to organizations like Velcro (Coombs, 2009, pp. 111–112; Coombs & Holladay, 2006, p. 126).

Interestingly enough, Hill (2016) has recently observed a dynamic that seems counterintuitive, but agrees with those who have shown only limited support for the halo effect (Coombs, 2009, p. 112). According to Hill (2016), “there is an anomaly where certain organizations” with great reputations are affected more by a crisis than organizations with poor or no reputations because the organizations with stellar reputations have a higher expectation placed on them by stakeholders. Coombs and Holladay (2006) agree that more research should be done on whether companies with great prior reputations will have more expected from them in times of crisis, ultimately making a crisis harder to overcome (p. 135). However, at the present time, the majority of findings and assertions from Hill and SCCT research is that a good history and prior reputation will protect organizational reputation during a crisis.

Another way to examine reputation and profile in general can be by the CEO and top executives' behavior. According to Murray and Shohen (1992), decisive and quick acting CEOs who take command of difficult situations are a necessity for overcoming crises. The previously mentioned study by VanSlyke Turk et al. (2012) also found that CEO presence has a positive effect on stakeholder attitudes and purchase intentions.

Pattern. Pattern is the history of an organization having the same type of crisis or problems that lead to a crisis (Hill, 2015b). Coombs (2004b) conducted an experiment that sheds some light on Hill's pattern (or history) concept. Coombs examined the relationship between crisis history and attributions of crisis responsibility and perceived reputation. His results suggest that organizations with a history of crises resulted in stronger attributions of crisis responsibility and a lower perceived reputation compared to organizations with no history of crises. Organizations with unknown crisis histories produced the same reactions compared to those with no history of crisis, with the exception of crises in the accident cluster. In the accident cluster, organizations with unknown crisis histories did not result in stronger attributions of crisis responsibility (Coombs, 2004b, pp. 280–281).

In an article about persuasive attacks, Benoit and Dorries (1996) also addressed pattern by using attribution theory to show that stakeholders assign blame to organizations for acts that have been repeated by the same organization (pp. 465-466). When a crisis represents a recurring pattern, attributions of blame are more likely, and the image of the company suffers and stakeholders feel alienated (Koerber & Zabara, 2016, p. 2).

Ulmer et al. (2014) agreed that prior history is important for companies facing crises. They argued that companies who prioritize taking care of people above taking care of the business, will fare better in a crisis. Core values should be addressed, identified, established, and followed. Companies should also establish good relationships with stakeholders before a crisis begins. Taking these steps as part of normal operations will help organizations to recover during crises by improving stakeholder perceptions of the organization (Ulmer et al., 2014, pp. 221–223). These ideas by Ulmer et al. (2014) relate to pattern by suggesting that a history of prioritizing people before business success will improve organizational reputation.

Sector/profession. Sector/profession denotes what profession or business sector the institution or individual is in. Examples include technology, airline, nonprofit, law enforcement, media, politics, etc. (Hill, 2017). Studies of crises within sectors have resulted in conflicting results (Lee & Kim, 2016, p. 350; Mowen, 1980).

Lee and Kim (2016) describe Hill's conceptualizations of pattern and sector/profession as two different history types. They conducted an experiment to see how pattern and sector/profession influence buffering within the walls of SCCT (p. 347). Their findings suggested that an organization that experiences a crisis in a sector that has been plagued with crises will not receive as much damage to their image. More relevant to the pattern section above, Lee and Kim's findings suggest that an organization that has a pattern of crises in its history will likely have more damage done to its reputation (Lee & Kim, 2016, p. 350).

Mowen (1980) conducted an experiment investigating reactions to product recalls. The study included a variable that was manipulated for whether other

companies in that sector had experienced recalls as well. Mowen's results did not have any significant findings to suggest crises from a common sector had any effect on a company's organizational reputation following a crisis.

Institution/individual recap. Taken together, the literature review of the institution/individual section suggests the Crisis Score's profile and (prior) reputation sections are conceptually the same. Additionally, prior reputation and pattern have the most support as predictors for the damage done to organizational reputation. It appears that companies with better reputations and a history of no crises will fare better from a crisis than an otherwise equal company that has a lower reputation, a history of crises, or both. It is also worth noting that the concepts within the institution/individual section overlap in many ways, particularly when it comes to discussion of reputation. These observations were incorporated into this study's experimental design. For brevity purposes, institution/individual was labeled "brand" in the experiment.

Issue.

The second section in the Crisis Score is issue. Issue accounts for the cause and effect of the actual crisis or disaster. As Murray and Shohen (1992) noted, each individual crisis usually consists of two levels of crisis. The first level is the actual crisis that occurs, also referred to as a trigger event (Sellnow & Seeger, 2013, p. 31). The other level is the crisis on the organization's image. Hill's (2015b) cause consists of a company's willfulness, negligence, and incompetence to the extent they are causal factors in the first level of crisis. Effect addresses the type of harm caused from it. Hill (2017) has specifically noted the types of harm to be physical, financial, environmental, inconvenience, or insensitivity.

Cause. Cause is made up of willfulness, negligence, and incompetence. Hill (2015b) defines willfulness as a crisis triggered by a purposeful act. Negligence occurs when a crisis is prompted by an accidental act. A crisis initiated by an action that resulted from improper training is labeled incompetence. According to Hill (2015a, 2015b), willfulness has a more negative effect on an organization's reputation than negligence, while negligence has a more negative effect on an organization's reputation than incompetence. This hierarchy is the result of the level of intent involved in creating the crises.

Coombs (1998) conducted a study to test the relationships between attribution dimensions (internal and external control), performance history, and crisis damage and their roles in determining perceived crisis responsibility and organizational reputation. In the study, Coombs used the term image instead of reputation. But as noted earlier, image is similar to reputation and are combined concepts for the purposes of this study (Davies et al., 2003; Hill, 2017). Coombs' had eight varying crisis scenarios with differing combinations of attribution, performance history, and crisis damage. His results produced several findings that support the Crisis Score. First, results from this study suggested a negative relationship between crisis responsibility and reputation. In other words, the more responsible an organization is for a crisis, the worse the crisis is for that organization's reputation. Similarly, Coombs found that more internal control was related to an increase in crisis responsibility and reputational damage. Additionally, this study found that crisis history increased perceptions of responsibility and decreased the organization's image (reputation).

There are many ways of classifying different attributes of crises (Coombs, 1995). One way crisis communication repairs damage to a company's reputation is to alter how people view the attribution dimensions of attribution theory, as was discussed above in the attribution theory section (Coombs, 1995; Russell, 1982; Weiner et al., 1988; Wilson et al., 1993).

The Crisis Score is concerned with internal loci of control. Where controllability intersects with the internal locus of control is where the crisis type matrix represents the Crisis Score's concepts of willfulness, negligence, and incompetence (Table 1).

Accidents are unintentional acts that happen within the company. Examples include product defects and injuries (Benoit, 1992; Coombs, 1995). The fact it is unintentional and involves generally random accidents leads to a minimal amount of responsibility and a weak tie between the organization and the cause of the accident. Coombs (1995) suggests the diminish crisis-response strategy for this situation, and more specifically, excuse, because the organization has little to no responsibility for the accident (Benoit, 1992; Coombs, 2010). Based on Hill's (2015b) definitions of willfulness, negligence, and incompetence, this unintentional act (accidents) corresponds to the negligence and incompetence categories.

Transgressions are intentional (and internal) actions that knowingly place someone or something in harm. Examples include knowingly selling dangerous products and violating laws. Coombs (1995, 2010) prescribes mortification and rebuild crisis-response strategies to combat this type of crisis. Both strategies seek forgiveness and attempt to make up for the wrongdoing. Based on Hill's (2015b) definitions of

willfulness, negligence, and incompetence, these intentional acts best correlate with the willfulness category. Comparing the crisis-response strategies between accidents and transgressions, it can be concluded that transgressions (willful acts) are more detrimental to a company's image than accidents (negligence and incompetence), which concurs with the Crisis Score (Benoit, 1992; Coombs, 1995; Hill, 2015a, 2015b).

Benoit and Dorries (1996) address willfulness in an article about persuasive attacks where they describe four strategies for increasing the perceived responsibility for an act. Others also say that people are more likely to forgive when an act is performed accidentally (Benoit, 2015; Coombs, 2009, pp. 108–110; Sellnow & Seeger, 2013, p. 169). But, when an act was performed intentionally, people are not as likely to forgive the transgressor. Benoit and Dorries (1996) cited a case study in the airline industry to show that crises resulting from willful acts are looked upon less favorably. After a US Air plane crash, it was discovered that the company decided to use engines that were due for overhauls on shorter flights to get more use out of them as a cost savings technique. Although it cannot be proven that delayed maintenance caused the crash, the fact that US Air purposefully engaged in this money savings practice at the potential risk of its customers and crews, did not likely improve consumers' views of the company.

Additionally, when an organization benefits from a crisis, it will appear selfish and be looked upon as more severe (Benoit & Dorries, 1996, pp. 466–467). The Crisis Score does not address this beneficiary situation. But according to Benoit and Dorries, if the organization benefited, it will appear that the organization planned the act. Therefore, this situation would fall under the Crisis Score's willfulness category.

When an organization is involved in an act while knowing the negative consequences that could result from the act, the organization is given more blame for it. Benoit and Dorries (1996) indicate that crises involving any sort of hypocrisy, such as when a prosecutor that is known for being tough on prostitution gets arrested during a prostitution sting, results in increased damage to that person's or organization's image (Benoit & Dorries, 1996, pp. 466, 468).

The cause part of the Crisis Score is an evaluation of how culpable an organization is for the original crisis/trigger event. According to the literature, this section is better conceptualized as how intentional the act was. Below, the effect section of the Crisis Score is reviewed.

Effect. Effect addresses the type of harm that occurs. It is broken down by whether a crisis caused physical damage, financial damage, environmental damage, inconvenience, or was a display of insensitivity. The literature review revealed little on this concept; however, Benoit and Dorries (1996) did address it while discussing outcomes that can increase the perceived offensiveness of an act using a utilitarian theory approach. Specifically, they address the extent of the damage resulting from an offensive act. Benoit and Dorries gave examples of the Exxon oil tanker VALDEZ and the Union Carbide plant in Bhopal, India (Ulmer et al., 2014, pp. 92–93, 96). These crises had substantial negative effects on the environment and people, respectively, which greatly increased the threat to their reputations. The aftermath suggests that when there is long-lasting damage, organizational reputation will suffer more. However, this is more applicable to the impact section of the Crisis Score.

Issue recap. This section addresses the cause and effect of the crisis trigger event (Sellnow & Seeger, 2013, p. 31). It is divided into cause and effect subsections. Cause focuses on whether an organization caused a crisis by a willful act, a negligent act, or because of incompetence, and previous studies suggest this concept should be evaluated by how intentional the act was. Effect gauges the type of harm caused. The literature does not address how differences in type of harm affects organizational reputation. Therefore, the effect subsection of the Crisis Score was not included in the experiment. Literature suggests that it is more relevant to examine how a crisis affects people. This will be examined in the next section.

Impact

The impact section of the Crisis Score examines how much damage a crisis inflicts. There are three categories: internal, stakeholder, and public. According to Hill (2017), internal consists of employees of an organization; stakeholders are people who are affected by an organization that is not part of the internal group; and public is made up of everyone that has no direct tie to an organization. Hill says if a crisis reaches a point where stakeholders are affected, the crisis will be more difficult to overcome than if the crisis only affects internal personnel. If the crisis affects the public, it is more damaging for the organization than if the crisis only affects the internal or stakeholder level. Based on Hill's observations in the crisis communication field, he determined this approach more accurate than strictly looking at numbers of fatalities and the cost to repair damage.

The literature provides many different definitions and ways to classify stakeholders and publics. It is important to distinguish exactly what the Crisis Score

intends to evaluate with the *impact* section of the Crisis Score. According to Davies et al. (2003), stakeholders include employees, owners, and the public. Anyone who can be affected by an organization is a stakeholder. Davies et al. go on to further conceptualize stakeholders into two groups. One group is closely associated with and most directly affected by benefitting from or being harmed by the organization, including the employees, owners/trustees, local communities, suppliers, and management. This corresponds to the Crisis Score's internal portion of impact and some of what the Crisis Score labels as stakeholders. The other type of stakeholder as defined by Davies et al., are those who will be affected indirectly, over the long term, or who will have non-existent effects from the organization. This group includes media, governments, financial markets, competitors, pressure groups, and the national and international population (Davies et al., 2003, p. 59). This indirectly affected group of people are accounted for in the public and some of the stakeholder sections of the Crisis Score (Hill, 2017).

Rawlins (2006) warns that people often use stakeholder and public interchangeably, but that they are two different entities. Publics are affected by an organization through messaging whereas stakeholders can affect an organization's mission and objectives. Smith (2012) concedes that there are many similarities between stakeholders and public and adds that there are different types of relationships that can occur between an organization and its publics. This is called linkage, which was originally developed by Grunig and Hunt (1984). Although there are varying groups of linkages that different scholars have pointed to, Smith emphasizes the customer, producer, limiter, and enabler model. Customers are the group of people who receive

products or services from an organization. Producers provide services to an organization and include employees. Enablers set norms and standards and can include government entities and the media. Limiters are the opposite of enablers. They are groups that work to undermine an organization and attempt to cause it to fail.

Unfriendly media and activist groups are examples of limiters. Smith (2012) also mentions that some practitioners categorize publics into only two groups, internal and external. These two groups correlate closely to the producer and customer categories, respectively, and to the two groups of stakeholders discussed by Davies et. al (2003).

Just as Rawlins (2006) stated, it can be seen from Smith (2012) and Davies et. al (2003), that definitions of stakeholders and publics overlap. For the purposes of this study, Hill's (2015b) concepts of internal, stakeholders, and public were changed to two categories, internal and external stakeholders. Internal stakeholders are now conceptualized as those closely associated with and most directly affected by benefitting from or being harmed by an organization, including the employees, owners/trustees, local communities, suppliers, and management (Davies et al., 2003; Smith, 2012). External stakeholders are conceptualized as those who will be affected indirectly, over the long term, or who will have non-existent effects from the organization. This group includes media, governments, financial markets, competitors, pressure groups, and the national and international population (Davies et al., 2003, p. 59).

As mentioned in the image repair theory review above, the effect of a crisis is not as important as the perception of it happening. Just because a company committed an offensive act does not necessarily mean its image is damaged. The institution/individual must be believed responsible for committing the act and that act

must be perceived as offensive. If the stakeholders did not find the crisis offensive, then it might as well not be offensive when it comes to image repair with those stakeholders (Benoit, 1997, p. 178). Coombs (2009) agrees with the importance of perception, saying if stakeholders think an organization is in crisis, that organization is in crisis, despite if it believes itself to be in crisis or not (p. 99).

It is important for organizations to build relationships with their stakeholders prior to crises occurring. In addition to the people and groups most important to an organization's success, organizations should include what Ulmer et al. (2014) refer to as secondary stakeholders, which are groups that do not play as active of a role with the organization, but are still important to its success (p. 42). This distinction is similar to the indirect stakeholders concept that Davies et al. (2003) identified. Ulmer et al. (2014) emphasize the importance of having a relationship with stakeholders and knowing their expectations prior to a crisis. These prior relationships help during a crisis because they improve communication flow between the organization and secondary stakeholders. Companies in crisis that distance themselves or aggravate stakeholders, increase uncertainty and ambiguity in the midst of crisis (Ulmer et al., 2014, p. 52). Aggravating stakeholders is similar to the issue of stakeholder emotion that was discussed earlier in the review of SCCT. Anger will cause stakeholders to follow "a pattern similar to attributions of crisis responsibility" (Coombs, 2009, p. 113), resulting in higher levels of blame for an organization than if the stakeholders were not angry. The pre-crisis relationship with stakeholders and interaction during crises is probably better suited for the profile portion of the Crisis Score because profile addresses how well-known an organization is among its stakeholders.

Organizations often interact with multiple stakeholders from a wide range of interests. For example, a company might work with the local fire department, police department, victims, activist groups, stockholders, and politicians, all for one crisis. Although it is preferable to address and deal with all stakeholder concerns (Ulmer et al., 2014, p. 52), sometimes a company will need to prioritize which groups are most important and address their needs and concerns first (Benoit, 1997, p. 178).

There are connections between the responsibility for crises described in the cause section and how crises affect publics, which can harm an organization's reputation. When innocent people are harmed, perception of responsibility increases (Benoit & Dorries, 1996, p. 468). When the victims are innocent or helpless, the offensiveness of the act is intensified (Benoit & Dorries, 1996, p. 468). This is an area representative of the insensitivity part of the effect section discussed above. Benoit and Dorries (1996) discuss the obligation to protect victims. Whenever someone who is in a position of trust and is expected to look out for the welfare of others harms someone, the severity of the crisis increases for that person or organization. Examples include doctors, scout leaders, and leaders in religious organizations (Benoit & Dorries, 1996, p. 469).

Impact recap. Hill treats internal, stakeholder, and public as three varying levels of magnitude in the impact section. The literature addressing the impact section combines the Crisis Score sections of internal, stakeholder, and public into two sections of internal and external stakeholders (Davies et al., 2003, p. 59; Smith, 2012). Because this is the first examination of the Crisis Score, this study will investigate how the magnitude of damage done to external stakeholders, which is similar to Hill's definition

of public and the portion of the impact section he claims has the largest effect on the Crisis Score, affects organizational reputation.

Summary of Previous Research

The review of literature began with a brief synopsis of the state of crisis communication literature, followed by a review of the current theories that are most applicable to the concepts in the Crisis Score. That was followed by a more detailed description of each phase of the Crisis Score, with relevant literature included where it supported or contradicted the ideas of the Crisis Score. Each section concluded with how that Crisis Score section would be incorporated into the study. See Figure 2 for the revised version of the Crisis Score that will be used for this study.

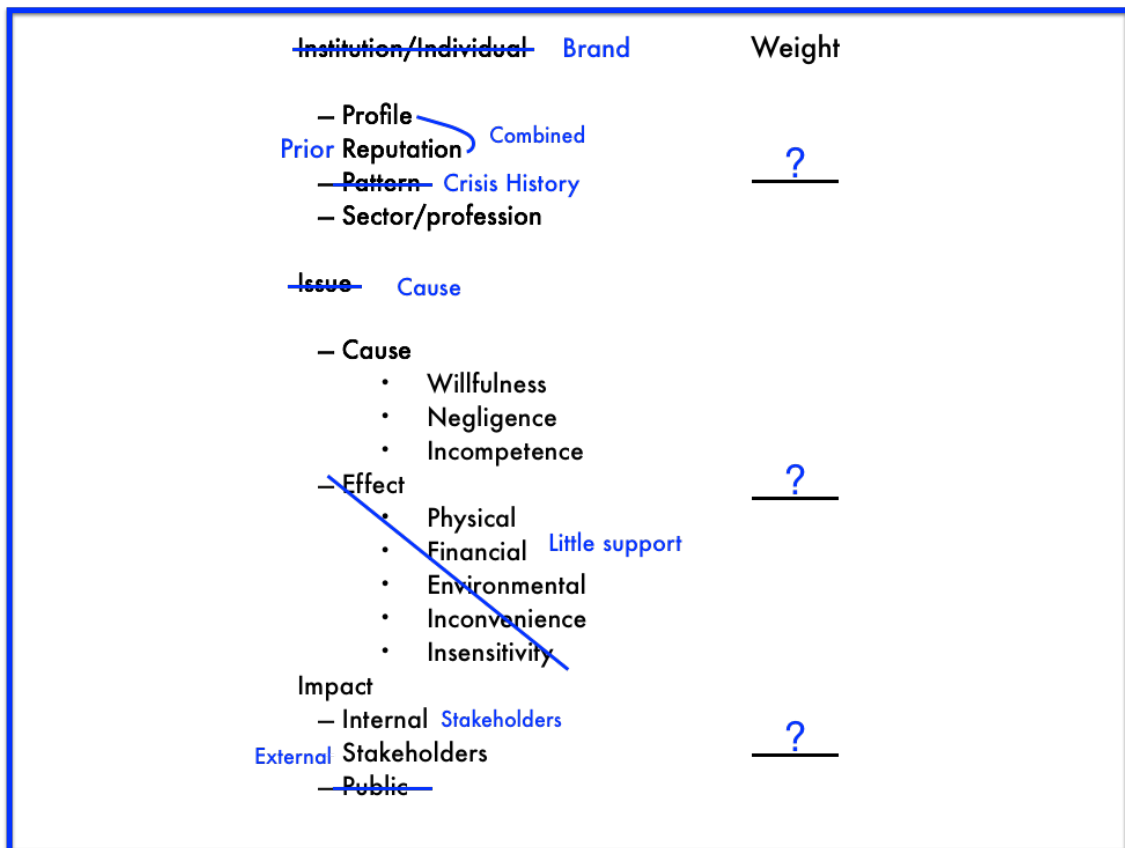


Figure 2. Crisis Score revised

Hypotheses

This study is the first attempt at testing the Crisis Score model against theory. It will take many studies to refine each section and subsection of this model with empirical testing. This study's goal is to start this process with a broad examination by testing the three main sections of the Crisis Score. The results of this study can then be used to test the sections of this model in more detail. The author suspects that the three main sections should be more equally weighted than the 40%, 50%, and 10% that are currently assigned to the institution/individual, issue, and impact categories (Hill, 2015a).

Institution/individual (brand). According to the literature review, the institution/individual section's most important variables are prior reputation and crisis history. Research suggests that attitudes toward organizations and intentions to purchase from organizations are better for those with good reputations prior to a crisis than for organizations with bad reputations prior to a crisis (VanSlyke Turk et al., 2012, p. 579). Additionally, the larger the crisis history, the larger the perception is of that organization's responsibility for the crisis. (Coombs, 2004b, pp. 280–281).

H1a: Organizations with a good prior reputation and no past crises (good brand) will yield more positive attitudes toward the organization in response to a crisis than organizations with a bad prior reputation and a history of crises (bad brand).

H1b: Organizations with a good prior reputation and no past crises (good brand) will yield higher purchase intentions in response to a crisis than organizations with a bad prior reputation and a history of crises (bad brand).

H1c: Organizations with a good prior reputation and no past crises (good brand) will produce weaker perceptions of crisis responsibility in response to a crisis than organizations with a bad prior reputation and a history of crises (bad brand).

H1d: Organizations with a good prior reputation and no past crises (good brand) will result in better organizational reputation in response to a crisis than organizations with a bad prior reputation and a history of crises (bad brand).

Issue (cause). Issue is divided into cause and effect. The literature suggests cause will be a better predictor of perceived crisis responsibility and organizational reputation than effect (Coombs, 1998). Since the literature review yielded little support for the effect subsection, the Crisis Score's label, *cause*, will replace *issue* in the experiment.

According to the Crisis Score, cause addresses if the crisis was caused by a willful, negligent, or incompetent act, and previous research specifically divides this into whether the crisis was initiated by an intentional act or not. This concept parallels attribution theory and how people make judgements about why others do what they do (Sellnow & Seeger, 2013, pp. 91–92).

H2a: Organizations that unintentionally trigger an action that leads to a crisis (low cause) will yield more positive attitudes toward the organization in response to a crisis than organizations that intentionally trigger an action that leads to a crisis (high cause).

H2b: Organizations that unintentionally trigger an action that leads to a crisis (low cause) will yield higher purchase intentions in response to a crisis than organizations that intentionally trigger an action that leads to a crisis (high cause).

H2c: Organizations that unintentionally trigger an action that leads to a crisis (low cause) will produce weaker perceptions of crisis responsibility in response to a crisis than organizations that intentionally trigger an action that leads to a crisis (high cause).

H2d: Organizations that unintentionally trigger an action that leads to a crisis (low cause) will result in better organizational reputation in response to a crisis than organizations that intentionally trigger an action that leads to a crisis (high cause).

Impact. The impact section of the Crisis Score addresses the damage inflicted to external stakeholders. The literature says the more offensive people find a crisis to be, the worse it is on organizational reputation (Benoit, 1997). The more people are harmed (impacted), or perceived to be harmed (impacted), regardless of what type of stakeholder they are, the more responsibility is attributed to the organization and the more organizational reputation is damaged (Benoit, 1992, p. 199; Benoit & Dorries, 1996; Coombs, 2009; Ulmer et al., 2014). As Davies et al. (2003) pointed out, any person affected by a company is a stakeholder in some aspect.

H3a: Crises that have little impact on external stakeholders (low impact) will yield more positive attitudes toward the organization in response to a crisis than crises that have great impact on external stakeholders (high impact).

H3b: Crises that have little impact on external stakeholders (low impact) will yield higher purchase intentions in response to a crisis than crises that have great impact on external stakeholders (high impact).

H3c: Crises that have little impact on external stakeholders (low impact) will produce weaker perceptions of crisis responsibility in response to a crisis than crises that have great impact on external stakeholders (high impact).

H3d: Crises that have little impact on external stakeholders (low impact) will result in better organizational reputation in response to a crisis than crises that have great impact on external stakeholders (high impact).

Chapter 3. Methodology

Methodology Description

This experiment employed a 3 (category: brand/cause/impact) x 2 (magnitude: high/low) mixed factorial design. Exposure to crisis scenarios with attributes of brand, cause, and impact were manipulated within subjects, and magnitude of the categories was manipulated between. Each participant read one news story for each category in either the high or low condition, for a total of three messages.

Independent Variables

Brand. Brand was operationalized by combining prior reputation and crisis history. An organization that was well-known/respected (prior reputation) with no history of crises was classified as good brand. An organization that was not well-known/respected (prior reputation) with a crisis history was classified as bad brand. See Appendices A and B.

Cause. Cause was operationalized by whether or not an organization triggered a crisis with an intentional act. An organization that did not intentionally commit an act that caused the crisis in question was classified as low cause and an organization that did intentionally commit an act that caused a crisis was classified as high cause. See Appendices C and D.

Impact. Impact was operationalized as grievances done to people, including mortalities, injuries, and financial harm. A crisis that caused harm to a small number of people was classified as low impact and a crisis that caused harm to a significant number of people was classified as high impact. See Appendices E and F.

Pre-test. Two pre-tests were conducted to determine the effectiveness of the experimental manipulations and to identify brand names that were not confounded by perceived previous knowledge of those organizations. The first pre-test included 44 people with characteristics similar to the group sampled in the experiment. After receiving results that some manipulations did not significantly vary from each other, a second pre-test was conducted with a similar sample of 41 different people.

After acknowledging the consent form, participants were asked how familiar they were with twelve fictional brand names anchored by 1 = *very unfamiliar* to 7 = *very familiar* (see Table 4). Based on the results, Min Speed ($M=1.39$), Tartan ($M=1.77$), and Cool Cream’s ($M=1.64$) were used as the organizations in the crisis stories for the main part of the study.

Table 4
Fictional company name means

| Company Name | Stats | | |
|------------------|-------|------|--------------------|
| | N | Mean | Standard Deviation |
| Bear | 44 | 1.84 | 1.64 |
| Spuds | 44 | 2.11 | 1.74 |
| Min Speed | 44 | 1.39 | 0.895 |
| Harls | 44 | 1.48 | 1.71 |
| Tartan | 44 | 1.77 | 1.57 |
| Jack Wagon | 44 | 1.82 | 1.66 |
| Tiger | 43 | 2.09 | 1.93 |
| Wagon Queen | 44 | 1.61 | 1.40 |
| Cool Cream’s | 44 | 1.64 | 1.40 |
| Fairy Bushes | 44 | 1.52 | 1.30 |
| Express Eat | 44 | 1.43 | 1.11 |
| Chicken Brothers | 44 | 1.82 | 1.65 |

For the pre-test, each participant was randomly assigned to the high or low group and read three news stories (brand, cause, and impact) in random order. After

each scenario, participants were asked questions to check the manipulations of the stories.

Brand. The manipulation check for brand was measured with a two-item scale anchored by *1 = strongly disagree to 7 = strongly agree*. The two items were (a) “[This organization] had a good reputation prior to this crisis” and (b) “[This organization] had a history of crises prior to this crisis” (reverse coded). A Pearson product-moment correlation coefficient was computed to assess the correlation of these two items. There was a positive correlation, $r=0.732$, $n = 44$, $p < 0.001$. These two items were combined and a one-way ANOVA found a significant difference between the good ($M=5.41$, $SD = 1.46$) and bad ($M=2.30$, $SD = 1.40$) brand stories [$F(1, 42) = 51.73$, $p < .001$].

Cause. The manipulation check for cause was measured by “This crisis was triggered by an intentional act of [the organization]” anchored by *1 = strongly disagree to 7 = strongly agree*. A one-way ANOVA found no significant difference between the high ($M = 6.14$, $SD = 0.96$) and low ($M = 6.09$, $SD = 1.04$) cause stories [$F(1, 42) = .034$, $p = .855$]. The news story was altered for a second pre-test that yielded better results. The manipulation check measure was also changed to better represent the manipulation. The new measure was “To what degree do you think the incident was caused by [the organization],” anchored by *1 = not at all caused to 7 = completely caused*. A one-way ANOVA found a significant difference between high ($M = 6.39$, $SD = 1.04$) and low ($M = 4.52$, $SD = 2.13$) cause stories [$F(1, 39) = 11.63$, $p = .002$].

Impact. The manipulation check for impact was measured by “This crisis caused a significant amount of harm to people” anchored by *1 = strongly disagree to 7 = strongly agree*. A one-way ANOVA found a significant difference between the high (M

=5.86, $SD = 1.24$) and low ($M = 4.96$, $SD = 1.22$) impact stories [$F(1, 42) = 5.89$, $p = .020$]. However, because the means for high and low impact were so close, it appeared that instead of low and high, the impact story was manipulated high and higher. The impact news story was altered for a second pre-test that yielded better results. The manipulation check measure was also changed to better represent the manipulation. The new measure was, “This crisis caused harm to a significant number of people” anchored by $1 = strongly\ disagree$ to $7 = strongly\ agree$. A one-way ANOVA found a significant difference between the high ($M = 6.11$, $SD = 0.96$) and low ($M = 3.70$, $SD = 1.80$) cause stories [$F(1, 39) = 26.52$, $p < .001$].

Dependent Variables

Attitude. Attitude was conceptualized by perceived friendliness, likeability, ethics, and management style of a company (VanSlyke Turk et al., 2012, p. 579). It was measured with a four-item scale ($\alpha = .97$) anchored by $1 = strongly\ disagree$ to $7 = strongly\ agree$. The four items on the scale were (a) “[This organization] is friendly,” (b) “[This organization] is likeable,” (c) “[This organization] has high ethical standards,” and (d) “[This organization] has a good management style.” Another study used a similar scale that had a Cronbach’s alpha of .96 (VanSlyke Turk et al., 2012, p. 579).

Purchase intentions. Purchase intentions was conceptualized as how likely consumers would purchase, use, or recommend an organization’s products or services. It was measured with a three-item scale ($\alpha = .97$) anchored by $1 = very\ unlikely$ to $7 = very\ likely$ (VanSlyke Turk et al., 2012, p. 579). The three items on the scale were (a) “I would purchase a product from or use [this company’s] services,” (b) “I would

recommend [this company's] product or services to a friend," and (c) "If in the market, I would be interested in requesting more information about [this company's] products or services." Another other study used a similar scale and had a Cronbach's alpha of .93 (VanSlyke Turk et al., 2012, p. 579).

Perception of crisis responsibility. Perception of crisis responsibility was conceptualized as how much blame an organization is attributed with (Benoit, 2015; Benoit & Dorries, 1996; Coombs, 1998). It was measured with a three-item scale (alpha = .95) for blame that was developed by Griffin, Babin, and Darden (1992) and used by Coombs and Holladay (Coombs & Holladay, 2002), anchored by *1 = strongly disagree to 7 = strongly agree*. The three items on the scale were (a) "Circumstances, not [the organization], are responsible for the crisis" (reverse coded), (b) "The blame for the crisis lies with [the organization]," and (c) "The blame for the crisis lies in the circumstances, not [the organization]" (reverse coded). At least four other studies used this scale and had Cronbach's alphas that ranged from .80 to .91 (Coombs, 1998, 1999, Coombs & Holladay, 2001, 2002).

Organizational reputation. Organizational reputation was found to be the closest conceptualization found in the literature for the dependent variable Hill used for the Crisis Score. Hill (2015b) defined the Crisis Score's score as how difficult a crisis will be to overcome. Organizational reputation was conceptualized in this study as how an organization is perceived by external stakeholders (Coombs & Holladay, 2001, 2010, p. 187). It was measured using a five-item organizational reputation scale (alpha = .96) that Coombs and Holladay (1996) developed, anchored by *1 = strongly disagree to 7 = strongly agree*. The five items were: (a) "[The organization] is concerned with the well-

being of its publics,” (b) “[The organization] is basically dishonest” (reverse coded), (c) “I do not trust [the organization] to tell the truth about the incident” (reverse coded), (d) “Under most circumstances, I would be likely to believe what [the organization] says,” and (e) “[The organization] is not concerned with the well-being of its publics” (reverse coded). At least two previous studies used this five-item scale and had a Cronbach’s alpha of .81 and .87 (Coombs & Holladay, 2002, pp. 174–1755; van der Meer & Verhoeven, 2014, p. 531).

Stimuli

The focus of this experiment was to determine the effects of brand, cause, and impact on attitude, purchase intentions, perception of responsibility, and organizational reputation. Three news stories from actual crises were used as stimulus material and were based on newspaper reports of the actual crises. Each category used a scenario based on the same crisis, with two variations (high vs. low). The names of the organizations and other identifying information were changed to reduce the chance of previous experiences confounding the results.

Information about the crisis in each story that was not relevant to the study was kept to increase believability (Isaacson, 2012, p. 22). All six scenarios were equal in length, and took approximately two minutes to read.

Brand. The brand (good/bad) scenarios were taken from a *Reuters News Service* article written about a 2005 British Petroleum (BP) refinery explosion (Reuters News Service, 2005). The good brand scenario included a sentence mentioning the organization’s good reputation within the oil industry and that this was its first accident (no crisis history). The bad brand scenario included a sentence mentioning a poor

reputation and three previous accidents similar to this one (crisis history). See Appendices A and B.

The manipulation check for brand was measured with a two-item scale anchored by 1 = *strongly disagree* to 7 = *strongly agree*. The two items were (a) “[This organization] had a good reputation prior to this crisis” and (b) “[This organization] had a history of crises prior to this crisis” (reverse coded). These were the same manipulation checks used for the first pre-test and were included immediately after the brand scenarios. A Pearson product-moment correlation coefficient was computed to assess the correlation of these two items. There was a positive correlation between, $r = 0.897$, $n = 209$, $p < 0.001$. These two items were combined and a one-way ANOVA found a significant difference between good ($M = 5.99$, $SD = 1.10$) and bad ($M = 2.13$, $SD = 1.29$) brand stories [$F(1, 207) = 542.89$, $p < .001$].

Cause. The cause (high/low) scenarios were taken from a *Wall Street Journal* article written about the Volkswagen emissions cheating scandal (Harder & Spector, 2015). Volkswagen was chosen because of the allegations that the CEO knew and approved of the software that enabled Volkswagen vehicles to pass emissions tests by detecting when the vehicle was being tested, and reducing output until the test was complete (Harder & Spector, 2015). The two versions of this scenario included different titles varying by whether the CEO approved of the cheating software (high cause) or was unaware of it (low cause). The high version had a sentence saying the company knowingly ignored regulations while the low version included a sentence blaming a parts vendor for the problem and stating the organization appeared to be clear of any wrongdoing. See Appendices C and D.

The manipulation check for cause was measured by “To what degree do you think the incident was caused by [the organization],” anchored by $1 = \textit{not at all caused}$ to $7 = \textit{completely caused}$. This was the same manipulation check used for the second pre-test and was included immediately after the cause scenarios. A one-way ANOVA found a significant difference between high ($M=6.56, SD = .82$) and low ($M=3.65, SD = 1.99$) cause stories [$F(1, 207) = 195.40, p < .001$].

Impact. The impact (high/low) scenarios were taken from a *New York Times* article written about the Schwan’s Sales Enterprises salmonella outbreak in 1994 (“Ice cream linked to salmonella in 15 states,” 1994). The Schwan’s food poison case was used because it was the largest outbreak of food poisoning from a single source in the United States (Ulmer, 1998). The title of the high impact scenario included “Poisoning of 224,000 People.” In the first paragraph, the high impact scenario again mentioned 224,000 cases of salmonella poisoning in 15 states, and later said more cases were expected as the investigation continued. The low scenario title said the outbreak was minor. The first paragraph blamed the organization for five illnesses in one city, and later mentioned that less than .001 percent of their customers had been affected. See Appendices E and F.

The manipulation check for cause was measured by “This crisis caused harm to a significant number of people” anchored by $1 = \textit{strongly disagree}$ to $7 = \textit{strongly agree}$. This was the same manipulation check used for the first pre-test and was included immediately after the impact scenarios. A one-way ANOVA found a significant difference between high ($M=5.99, SD = .89$) and low ($M=3.27, SD = 1.70$) impact stories [$F(1, 206) = 212.94, p < .001$].

Participants

Participants (N = 209), were recruited through Amazon Mechanical Turk (MTurk), an online marketplace that allows people to be hired for miscellaneous, computer based work (Buhrmester, Kwang, & Gosling, 2011, p. 3). This study followed the lead of Peer, Vosgerau, and Acquisti (2014), who found that using mTurk participants with a 95% and higher acceptance rate ensures high data quality and is a better alternative to implementing attention check questions. All participants were residents of the United States, representing 39 states, who reported to be at least 18 years of age. 56.5% were male and 43.5% were female. Age ranged from 21 to 85, with an average age of 36. Seventy-three percent of participants were White, 7% Black, 8% Hispanic, 9% Asian, 2% reported as other, and 2% did not report race. A script was used in mTurk to ensure no one participated in the pre-test and the main part of the study.

Reputations of organizations are made from public perception. Therefore, a more general sample of people from the public were recruited for this experiment, instead of recruiting crisis communication professionals and scholars. MTurk samples have been found to be more demographically diverse than standard internet samples and much more diverse than typical standards from college students. Additionally, questionnaire data collected via MTurk is as reliable as data collected through more traditional methods (Buhrmester et al., 2011, p. 3).

The experiment was administered with Qualtrics, an online program capable of making comprehensive questionnaires. Participants recruited through mTurk were

given a link to the experiment that began with a consent form that had to be acknowledged before beginning.

Procedure

The entire study was administered through Qualtrics. The study began with informed consent. Two groups were used, within categories (brand, cause, impact) and between magnitudes (low/high). Qualtrics randomly assigned each participant to a group. There were 107 people (51.2%) selected to the high group and 102 people (48.8%) selected to the low group. The high group was exposed to three stories, each representing a high attribute in one of the three categories in random order. The low group read three different stories, each representing a low attribute in one of the three categories in random order. Each category's story was similar with manipulations to make it exhibit high or low attributes in that category. This selection process meant that no participant read two stories about the same crisis.

Before reading the news stories, participants acknowledged an online consent form (see Appendix J) that informed each participant that they would receive seventy-five cents for completing the questionnaire. No personally identifying information was collected.

After acknowledging the consent form, the participants typed in their age. mTurk's policy states that all users are at least 18 years of age, but age was asked here as additional verification. If anyone entered a number less than 18 or more than 99, they were not allowed to complete the survey. All participants fell within the required age range.

After reading each scenario, participants answered a questionnaire containing manipulation checks and measures of the dependent variables. After the third scenario, participants also answered demographics questions including whether they used a computer or mobile device to complete the questionnaire, gender, education level, employment status, race, and what state they were currently located. Participants were then given a code to retrieve payment via mTurk.

Chapter 4. Results

Four repeated-measures ANOVAs were conducted to test each hypothesis.

There was statistical significance for all main effects and interactions. Post hoc t-tests were run on interactions and all hypotheses were supported.

Hypotheses

Attitude. H1a, H2a, and H3a, predicted that organizations with a good brand, low cause, and low impact would yield more positive attitudes toward the organization in response to a crisis than organizations with a bad brand, high cause, and high impact. After combining the attitude scales, a single-factor repeated-measures ANOVA was conducted. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(2) = 7.84, p = .02$, therefore Greenhouse-Geisser corrected tests are reported ($\epsilon = .96$). The main effect of attitude was statistically significant $F(1.93, 399.10) = 72.32, p < .001, \eta_p^2 = .259$. The attitude for brand was the highest ($M = 4.23, SD = 1.58$), followed by impact ($M = 3.96, SD = 1.16$), followed by cause ($M = 2.94, SD = 1.48$).

The interaction between attitude and group (high/low) was also statistically significant $F(1.93, 399.10) = 30.68, p < .001, \eta_p^2 = .129$. An independent samples t-test was conducted to test if attitudes in the high groups were statistically different than the low groups for brand, cause, and impact. See Figure 3.

Participants reported more positive attitudes toward organizations with a good brand ($M = 5.37, SD = 1.01$) than those with a bad brand ($M = 3.13, SD = 1.22$). This difference was significant $t(207) = -14.48, p < .001, d = -2.00$ (see Table 5). Therefore, H1a was supported.

Participants reported more positive attitudes toward organizations with low cause ($M = 3.80$, $SD = 1.36$) than those with high cause ($M = 2.12$, $SD = 1.07$). This difference was significant $t(207) = -10.00$, $p < .001$, $d = -1.38$ (see Table 5). Therefore, H2a was supported.

Participants reported more positive attitudes toward organizations with low impact ($M = 4.22$, $SD = 1.13$) than those with high impact ($M = 3.71$, $SD = 1.14$). This difference was significant $t(207) = -3.22$, $p = .001$, $d = -0.45$ (see Table 5). Therefore, H3a was supported.

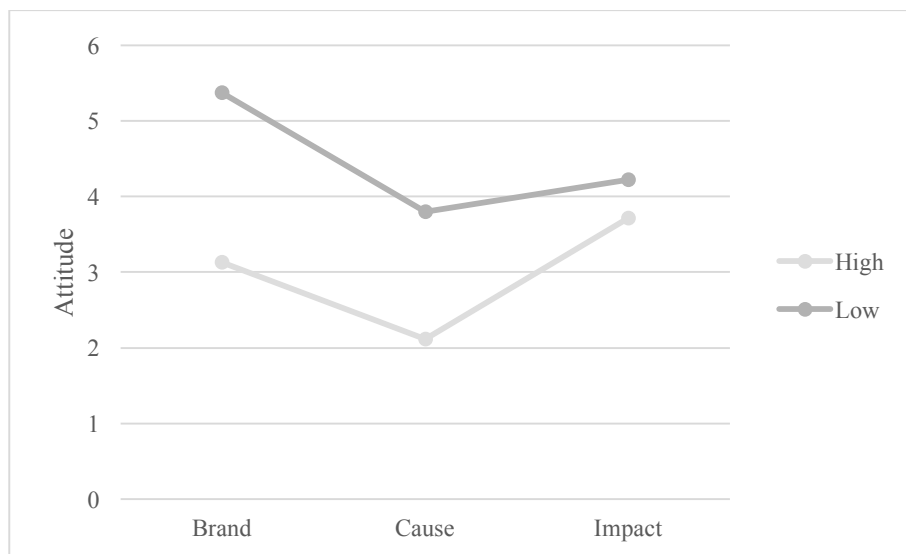


Figure 3. Means of attitudes across conditions

Purchase intentions. H1b, H2b, and H3b, predicted that organizations with a good brand, low cause, and low impact would yield higher purchase intentions in response to a crisis than organizations with a bad brand, high cause, and high impact. After combining the purchase intention scales, a single-factor repeated-measures ANOVA was conducted. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(2) = 10.61$, $p = .005$, therefore Greenhouse-Geisser corrected tests are reported ($\epsilon = .95$). The main effect of purchase intentions was statistically significant

$F(1.90, 394.22) = 111.32, p < .001, \eta_p^2 = .350$. The purchase intentions for brand was the highest ($M=4.51, SD = 1.76$), followed by impact ($M=3.27, SD = 1.62$), followed by cause ($M=2.52, SD = 1.58$).

The interaction between purchase intentions and group (high/low) was also statistically significant $F(1.90, 394.22) = 13.21, p < .001, \eta_p^2 = .060$. An independent samples t-test was conducted to test if purchase intentions in the high groups were statistically different than the low groups for brand, cause, and impact. See Figure 4.

Participants reported higher purchase intentions toward organizations with a good brand ($M=5.74, SD = 1.36$) than those with a bad brand ($M=3.33, SD = 1.21$). This difference was significant $t(207) = -13.54, p < .001, d = -1.87$ (see Table 5). Therefore, H1b was supported.

Participants reported higher purchase intentions toward organizations with low cause ($M=3.27, SD = 1.59$) than those with high cause ($M=1.81, SD = 1.18$). This difference was significant $t(207) = -7.55, p < .001, d = -1.05$ (see Table 5). Therefore, H2b was supported.

Participants reported higher purchase intentions toward organizations with low impact ($M=3.81, SD = 1.70$) than those with high impact ($M=2.76, SD = 1.35$). This difference was significant $t(207) = -4.97, p < .001, d = -0.69$ (see Table 5). Therefore, H3b was supported.

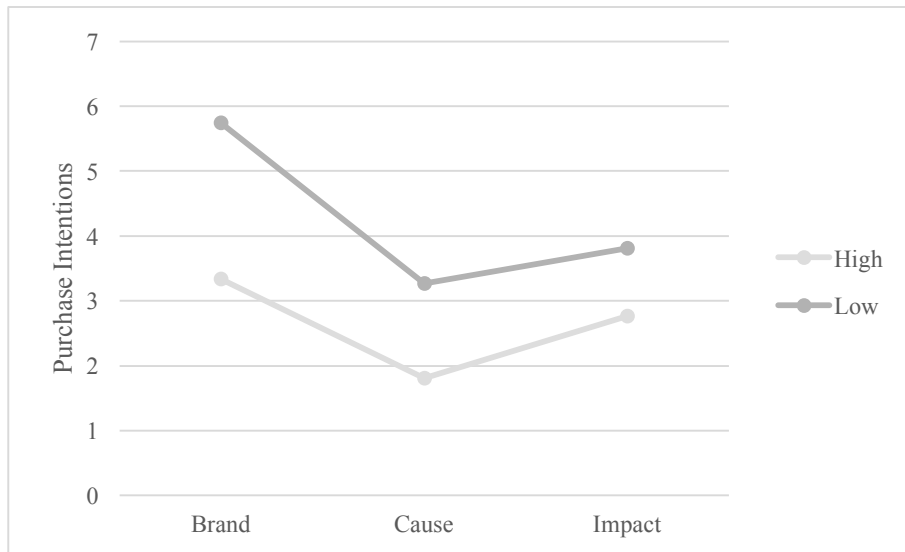


Figure 4. Means of purchase intentions across conditions

Perception of crisis responsibility. H1c, H2c, and H3c, predicted that organizations with a good brand, low cause, and low impact would produce weaker perceptions of crisis responsibility in response to a crisis than organizations with a bad brand, high cause, and high impact. After combining the responsibility scales, a single-factor repeated-measures ANOVA was conducted. Mauchly's test indicated that the assumption of sphericity had been met, $\chi^2(2) = 1.59, p = .453$. The main effect of perception of crisis responsibility was statistically significant $F(2, 410) = 60.59, p < .001, \eta_p^2 = .228$. The perception of crisis responsibility for cause was the highest ($M = 5.01, SD = 1.91$), followed by impact ($M = 4.08, SD = 1.53$), followed by brand ($M = 3.55, SD = 1.65$).

The interaction between perceptions of crisis responsibility and group (high/low) was also statistically significant $F(2, 410) = 10.27, p < .001, \eta_p^2 = .048$. An independent samples t-test was conducted to test if perceptions of crisis responsibility in

the high groups were statistically different than the low groups for brand, cause, and impact. See Figure 5.

Participants reported weaker perceptions of crisis responsibility toward organizations with a good brand ($M=2.46$, $SD = 1.33$) than those with a bad brand ($M=4.59$, $SD = 1.20$). This difference was significant $t(207) = 12.34$, $p < .001$, $d = 1.71$ (see Table 5). Therefore, H1c was supported.

Participants reported weaker perceptions of crisis responsibility toward organizations with low cause ($M=3.81$, $SD = 1.85$) than those with high cause ($M=6.16$, $SD = 1.10$). This difference was significant $t(205) = 11.14$, $p < .001$, $d = 1.55$ (see Table 5). Therefore, H2c was supported.

Participants reported weaker perceptions of crisis responsibility toward organizations with low impact ($M=3.46$, $SD = 1.59$) than those with high impact ($M=4.67$, $SD = 1.21$). This difference was significant $t(207) = 5.93$, $p < .001$, $d = 0.82$ (see Table 5). Therefore, H3c was supported.

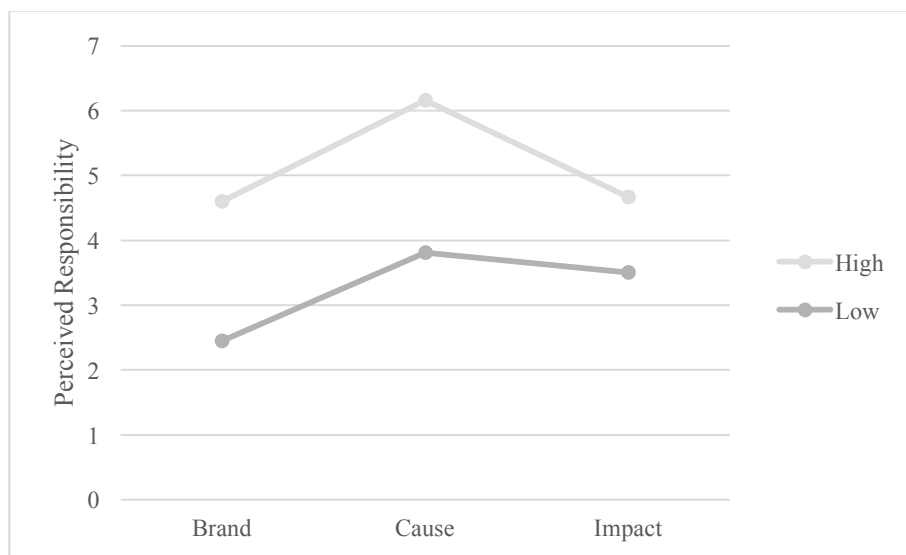


Figure 5. Means of perceived crisis responsibility across conditions

Organizational reputation. H1d, H2d, and H3d, predicted that organizations with a good brand, low cause, and low impact would result in better organizational reputation in response to a crisis than organizations with a bad brand, high cause, and high impact. After combining the organizational reputation scales, a single-factor repeated-measures ANOVA was conducted. Mauchly's test indicated that the assumption of sphericity had been met, $\chi^2(2) = 3.19, p = .203$. The main effect of organizational reputation was statistically significant $F(2, 414) = 65.92, p < .001, \eta_p^2 = .242$. Organizational reputation for impact was the highest ($M=4.37, SD = 1.30$), followed by brand ($M=4.04, SD = 1.59$), followed by cause ($M=3.03, SD = 1.58$).

The interaction between organizational reputation and group (high/low) was also statistically significant $F(2, 414) = 23.06, p < .001, \eta_p^2 = .100$. An independent samples t-test was conducted to test if organizational reputation in the high groups were statistically different than the low groups for brand, cause, and impact. See Figure 6.

Participants reported better perceptions of organizational reputation toward organizations with a good brand ($M=5.12, SD = 1.29$) than those with a bad brand ($M=3.00, SD = 1.09$). This difference was significant $t(207) = -12.85, p < .001, d = -1.78$ (see Table 5). Therefore, H1d was supported.

Participants reported better perceptions of organizational reputation toward organizations with low cause ($M=4.03, SD = 1.41$) than those with high cause ($M=2.08, SD = 1.07$). This difference was significant $t(207) = -11.31, p < .001, d = -1.56$ (see Table 5). Therefore, H2b was supported.

Participants reported better perceptions of organizational reputation toward organizations with low impact ($M=4.69, SD = 1.35$) than those with high impact (M

=4.07, $SD = 1.19$). This difference was significant $t(207) = -3.58, p < .001, d = -0.50$ (see Table 5). Therefore, H3b was supported.

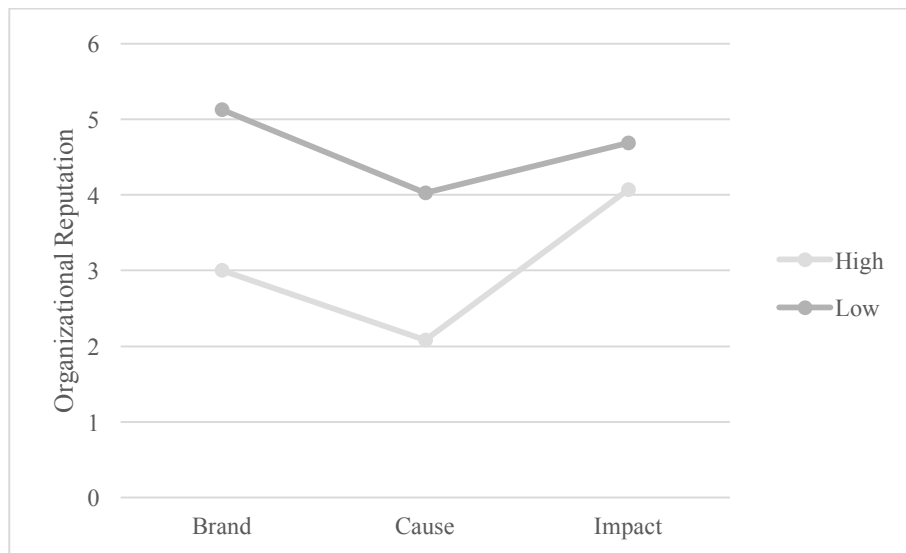


Figure 6. Means of organizational reputation across conditions

Table 5
Interaction means and power

| Group Statistics | Condition | Mean | Std. Deviation | Cohen's <i>d</i> |
|-------------------------------------|-----------|------|----------------|------------------|
| Attitude Brand | High | 3.13 | 1.01 | -2.00 |
| | Low | 5.37 | 1.22 | |
| Attitude Cause | High | 2.12 | 1.07 | -1.38 |
| | Low | 3.80 | 1.36 | |
| Attitude Impact | High | 3.71 | 1.14 | -0.45 |
| | Low | 4.22 | 1.13 | |
| Purchase Intention Brand | High | 3.33 | 1.21 | -1.87 |
| | Low | 5.74 | 1.36 | |
| Purchase Intention Cause | High | 1.81 | 1.18 | -1.05 |
| | Low | 3.27 | 1.59 | |
| Purchase Intention Impact | High | 2.76 | 1.35 | -0.69 |
| | Low | 3.81 | 1.70 | |
| Responsibility Brand | High | 4.60 | 1.19 | 1.71 |
| | Low | 2.45 | 1.33 | |
| Responsibility Cause | High | 6.16 | 1.10 | 1.55 |
| | Low | 3.81 | 1.85 | |
| Responsibility Impact | High | 4.67 | 1.21 | 0.82 |
| | Low | 3.50 | 1.62 | |
| Organizational Reputation Brand | High | 3.00 | 1.09 | -1.78 |
| | Low | 5.12 | 1.29 | |
| Organizational Reputation Cause | High | 2.08 | 1.07 | -1.56 |
| | Low | 4.03 | 1.41 | |
| Organizational Reputation Impact | High | 4.07 | 1.19 | -0.50 |
| | Low | 4.69 | 1.35 | |

Chapter 5. Discussion

As previously mentioned, the Crisis Score is a new model developed by Dan Hill, based on his 20 years of experience in the crisis communication field. The model lacks a theoretical background and this study took the initial step to test it against theory and determine its strengths and weaknesses. The Crisis Score has the potential to become the first crisis communication model to assign numerical values, quantifying the severity of crises on an organization's image. The Crisis Score is a complex model with 15 variables. Therefore, this first study utilized a broad approach by testing the model with the variables grouped into their three main categories.

Review of the Methodology

This experiment employed a 3 (category: brand/cause/impact) x 2 (magnitude: high/low) mixed factorial design. Exposure to crisis scenarios with attributes of brand, cause, and impact were manipulated within subjects, and magnitude of the categories was manipulated between. Each participant was randomly assigned into the high or low condition and then read one news story for each category in that condition.

Review of Independent Variables

The independent variables were brand, cause, and impact. An organization with a good reputation prior to a crisis and no history of crises was classified as a good brand and an organization with a poor reputation prior to a crisis with a crisis history was classified as a bad brand. An organization that did not intentionally commit an act that caused a crisis was classified as low cause and an organization that did intentionally commit an act that caused a crisis was classified as high cause. An organization involved in a crisis that caused harm to a small number of people was classified as low

impact and an organization involved in a crisis that caused harm to a significant number of people was classified as high impact.

Summary of the Results

Participants were randomly divided into two groups, high and low. Each person read three news stories based on real events that were manipulated high or low for brand, cause, and impact. The participants then answered a questionnaire to measure the dependent variables (attitude, purchase intentions, perception of crisis responsibility, and organizational reputation). Four single-factor repeated-measures ANOVAs were conducted, followed by post hoc t-tests to compare differences of means for each interaction. All hypotheses were supported. The results found that organizations with a good brand, low cause, and low impact yielded more positive attitudes toward the organization in response to a crisis than organizations with a bad brand, high cause, and high impact, respectively. Organizations with a good brand, low cause, and low impact yielded higher purchase intentions in response to a crisis than organizations with a bad brand, high cause, and high impact, respectively. Organizations with a good brand, low cause, and low impact produced weaker perceptions of crisis responsibility in response to a crisis than organizations with a bad brand, high cause, and high impact, respectively. Organizations with a good brand, low cause, and low impact resulted in better organizational reputation in response to a crisis than organizations with a bad brand, high cause, and high impact, respectively.

Theoretical Implications

The results from this study inform theory in several ways. First, the results help reinforce several previous studies. All dependent variables were derived from scales

used in other studies, but no studies have used this combination of independent variables (Coombs, 1998, 1999, Coombs & Holladay, 2001, 2002, 2010; van der Meer & Verhoeven, 2014; VanSlyke Turk et al., 2012). These results help reinforce previous experiments and can give ideas for future study.

Findings also directly support SCCT. According to Coombs (1995) and Coombs and Holladay (2002), the more stakeholders attribute control of a crisis to an organization, the higher the level of responsibility the stakeholder places on the organization. H2c, which said that organizations that unintentionally trigger an action that leads to a crisis will produce weaker perceptions of crisis responsibility in response to a crisis than organizations that intentionally trigger an action that leads to a crisis, supports this assertion. Additionally, H1d supports Coombs (2004a) and Coombs and Holladay's (2001, p. 323) assertion that organizations that have experienced prior crises are more likely to suffer reputational damage than those that have not. Coombs (2004a, 2004b) also claims that a history of crises will increase perceptions of crisis responsibility. This finding was supported by H1c. The results from this study produced practical implications as well, and they are discussed in the following section.

Practical Implications

All hypotheses were supported, which is not surprising since they were derived from theory and studies that examined similar relationships. What makes these findings unique, however, is how they inform and link theory with practice.

Main effects. There were significant main effects for each of the dependent variables. These main effects can be useful to practitioners when the sections of the Crisis Score are compared across the dependent variables (see Table 6). Brand

produced the highest mean for both attitude and purchase intentions compared to cause and impact. This suggests that an organization that wants to improve stakeholder attitudes or purchase intentions in the wake of a crisis should focus on their brand before a crisis occurs.

Cause resulted in the highest mean for perceptions of crisis responsibility. This finding suggests that cause, or how intentional an act was that triggered a crisis, will have the greatest impact on perceptions of responsibility, but not as much on attitude, purchase intentions, and organizational reputation. To lower perceptions of responsibility following a crisis, organizations must not commit willful acts that initiate crises. This means it is important for organizations to evaluate their procedures and policies before a crisis occurs, to ensure there are no organizational norms or practices that allow for actions that would appear to be intentional in hindsight.

Impact yielded the highest mean for organizational reputation. This finding suggests that evaluating how many people were harmed (impact) will improve organizational reputation more than it will improve attitude, purchase intentions, or increase perceptions of crisis responsibility. This finding is not as helpful to professionals, but it does highlight the importance of minimizing the damage that is occurring from a crisis as quickly as possible.

Table 6
Main effect means

| | | Attitude | | PI | | Responsibility | | Organizational Rep |
|--------|---|-----------------------|---|-----------------------|---|-----------------------|---|-----------------------|
| Brand | 1 | $M=4.23$ $SD=1.58$ | 1 | $M=4.51$ $SD=1.76$ | 3 | $M=3.55$ $SD=1.65$ | 2 | $M=4.04$ $SD=1.59$ |
| Cause | 3 | $M=2.94$ $SD=1.48$ | 3 | $M=2.52$ $SD=1.58$ | 1 | $M=5.01$ $SD=1.91$ | 3 | $M=3.03$ $SD=1.58$ |
| Impact | 2 | $M=3.96$ $SD=1.16$ | 2 | $M=3.27$ $SD=1.62$ | 2 | $M=4.08$ $SD=1.53$ | 1 | $M=4.37$ $SD=1.30$ |

Interactions.

Brand. Organizations with a good brand yielded more positive attitudes, higher purchase intentions, weaker perceptions of crisis responsibility, and better organizational reputation than organizations with a bad brand. These results show support for a good prior reputation and no crisis history being better for attitude, purchase intentions, perceptions of crisis responsibility, and organizational reputation than a bad reputation and a history of crises. Furthermore, Cohen's d for the interactions between brand and attitude, purchase intentions, perception of crisis responsibility, and organizational reputation were higher than the interactions between cause or impact and any of the respective DVs (see Table 5). These effect sizes can inform the Crisis Score's weight for brand. This finding suggests that brand should be weighted higher than cause and impact.

Cause. Organizations with low cause yielded more positive attitudes, higher purchase intentions, weaker perceptions of crisis responsibility, and better organizational reputation than organizations with high cause. These results show support for organizations that knowingly commit an act that causes a crisis damaging

the public's attitudes, decreasing purchase intentions, increasing perceptions of crisis responsibility, and damaging organizational reputation compared to when an organization does not knowingly commit an act that causes a crisis. Cohen's d for the interactions between cause and attitude, purchase intentions, perception of crisis responsibility, and organizational reputation were slightly lower than the interactions between brand and the respective DVs and higher than the interactions between impact and the respective DVs (see Table 5). These effect sizes can inform the Crisis Score's weight for cause. This finding suggests that cause should be weighted slightly lower than brand and higher than impact.

Impact. Organizations with low impact yielded more positive attitudes, higher purchase intentions, weaker perceptions of crisis responsibility, and better organizational reputation than organizations with high impact. These results show support for when a large number of people become harmed from a crisis, it will damage the public's attitudes, decrease purchase intentions, increase perceptions of crisis responsibility, and damage organizational reputation more than when fewer people are harmed. Cohen's d for the interactions between impact and attitude, purchase intentions, perception of crisis responsibility, and organizational reputation were much lower than the interactions between brand or cause and any of the respective DVs (see Table 5). These effect sizes can inform the Crisis Score's weight for impact. This finding suggests that impact should be weighted much lower than brand and cause.

As mentioned above, the effect sizes of groups within each dependent variable suggest how much each section of the Crisis Score should be weighted. When the Cohen's d statistic for each section of the crisis score is compared within a dependent

variable, a ratio can be created to determine a weighted score of the effect size of that section of the Crisis Score on that particular dependent variable. Table 7 shows the results of this analysis and includes an average of the scores and Hill's original weights. These calculated weights are similar to what Hill proposed. However, the original weights for the Crisis Score showed that brand was 40%, cause 50%, and impact 10%. The findings in this study suggest that brand be weighted 48%, cause 35%, and impact 16%, or rounded, 50%, 35%, and 15%, respectively. This is a noteworthy discovery because it links theory and practice, showing how they produce similar findings.

Table 7
Cohen's d percentages with Crisis Score sections

| | Attitude | PI | Responsibility | Organizational Rep | Average | Hill's weights |
|--------|----------|-----|----------------|--------------------|---------|----------------|
| Brand | 52% | 52% | 42% | 46% | 48% | 40% |
| Cause | 36% | 29% | 38% | 41% | 36% | 50% |
| Impact | 12% | 19% | 20% | 13% | 16% | 10% |

Directions for Future Research

Since each section of the Crisis Score was supported, future studies should examine each section individually. The interaction of all three parts of brand (prior reputation, pattern/crisis history, and sector/profession) can be looked at with a 2 (prior reputation: good/bad) x 2 (pattern: history of crises/no crisis history) x 2 (sector: crisis history in sector/no crisis history in sector) experimental design.

For the cause section, future studies should also test Hill's (2015a) concepts of willfulness, negligence, and incompetence to see if willfulness is worse than negligence, and negligence worse than incompetence on these dependent variables, as he suggests. This relationship has not been tested before, but it will be an interesting topic to

explore. These variables in cause should be studied separately from the variables of effect. The effect subsection (whether the damage was physical, financial, environmental, inconvenience, or insensitivity) was not tested in this study. However, future studies can implement types of damage incurred by creating additional messages that reflects Hill's different types of effects.

Hill's concepts of internal, stakeholders, and public that made up the impact section was changed to internal and external stakeholders for this study. Hill claimed a hierarchy between internal personnel, those with connections outside of the organization (stakeholders), and the general public, where harm to internal would have the least impact and harm to the public would have the worst. Future studies should combine the concepts used in this study (internal and external stakeholders) with Hill's idea of a hierarchy, and explore whether harm to internal stakeholders will cause less harm to organizations than harm to external stakeholders.

With the increasing popularity of social media, future studies should consider measuring the effect of social media. New dependent variables such as sharing information (Utz, Schultz, & Glocka, 2012) and intent to comply (Freberg, 2012) have been used. But Jiang, Luo, and Kulemeka (2016) have called for quantitative research to establish metrics to measure social media engagement.

Future research should include more connections to practice. This study made comparisons to attribution theory, image repair theory, and SCCT with the Crisis Score, a model developed solely from a practitioner's experience. There were differences in the definitions of some concepts, but there were many parallels, too. Scholars should make a concentrated effort to link theory and practice in future studies. After all, as

Sellnow and Seeger (2013, p. 243) said, scholars have an opportunity and an obligation to translate their findings into useful tools that practitioners can use.

Limitations

This study used news stories from crises in the oil, car, and food industry. Results might change based on the industry involved. Hill does address this in the sector/profession portion of the brand section. But, because this was the first study to test the Crisis Score, and because of the conflicting results in previous studies for this topic (Lee & Kim, 2016; Mowen, 1980), this study did not tackle this variable. Future experiments can cross other variables with different sectors to see how the Crisis Score is affected by industry.

Additionally, the results of the Crisis Score might be different depending on the type of organization involved. Celebrities, politicians, government organizations, businesses, and non-profits can all face crises (Hill, 2015b), and the Crisis Score might change for each one of those entities. Future studies can test the Crisis Score sections with these different types of organizations to learn if different weights need to be applied or if they are the same across the board.

The Crisis Model does not address crisis response strategies, which is a prevalent topic in crisis communication (Coombs, 2009; Sellnow & Seeger, 2013; VanSlyke Turk et al., 2012). However, Hill (2015a) has formulated what he calls multipliers that consist of duration, lies, revelations, and missteps. These multipliers could happen at any time during the crisis response. At the time of this study, multipliers had not been developed well enough to incorporate. Even without them, this model can inform what response strategies to utilize. By using the number given from

the Crisis Score, scholars and professionals can know where on the SCCT's accommodative spectrum they should go for a response strategy.

The sample of participants in this study was gathered from U.S. citizens recruited from mTurk, an online service that recruits people to perform computer based work (Buhrmester et al., 2011, p. 3). Although mTurk has been shown to provide high quality data and is more diverse than a typical sample of college students, it cannot be generalized to the public (Buhrmester et al., 2011; Gosling, Vazire, Srivastava, & John, 2004). Future studies would benefit from a representative sample from the United States, internationally, and other regions around the world to see how the Crisis Score might be different in other cultures and in an international setting (Thiessen & Ingenhoff, 2011).

The use of single-message designs is another limitation to this study. Each category of the Crisis Score used the same news story, manipulated into a high and low version. This resulted in only one concrete example for each category (brand, cause, impact). This design might not have provided good generalization across messages because there could be unnoticed properties of the messages that influenced the results (O'Keefe, 2015). However, in the author's opinion, the results from this study seem "sufficiently tantalizing" enough to replicate it with a multiple-message design (O'Keefe, 2015, p. 107).

Conclusion

This study's goal was to take the initial step of making the Crisis Score an established model in crisis communication literature. The Crisis Score was tested by combining its 15 variables into its three main categories. After making small changes to

the model based on the literature review, the model was tested with a 3 x 2 mixed factorial design. All hypotheses were supported with statistically significant results, and using effect sizes, new weights were recommended.

One of the most interesting findings was that each category of the Crisis Score had similar effect sizes across the dependent variables. For example, brand had a Cohen's *d* of -2.00, -1.87, 1.71, and -1.78 with attitude, purchase intentions, perception of crisis responsibility, and organizational reputation, respectively. The Cohen's *d*s for cause and impact were similar to each other as well (see Table 5). When a ratio of the Cohen's *d* statistics was calculated for each dependent variable across the Crisis Score categories, they yielded consistent results and were similar to what Hill (2015a) proposed (see Table 7 and Figure 7). This is a great example of how theory and practice have developed their own models that express similar findings. This was the first step toward developing the Crisis Score.

Stakeholder perception is a key attribute for organizations. The literature brought up this important topic several times. Perception is reality (Benoit, 1997, p. 178; Coombs, 2009, p. 99; Sellnow & Seeger, 2013; Ulmer et al., 2014, pp. 221–223). Scholars and practitioners should remember this when developing studies or making decisions about how to address stakeholders.

The model's three main sections should now be studied individually and crossed with the different types of organizations and cultural settings mentioned in the limitations section. Eventually, it will become evident if the Crisis Score weights remain constant or should be changed for different types of organizations like celebrities, non-profit organizations, governments, etc.

After more studies have been completed and a reliable weight is assigned to each section of the crisis score, it will be easier for scholars and practitioners to objectively assign weights and ultimately score crises with numerical values. The implications of a fully working model that can score crises in a way to evenly compare them to each other will be a great development to both theory and practice. Scholars will be able to improve existing theories and develop new ones. Organizations will receive more personalized help for their crises that before would have required hiring personal PR consultants to achieve.

In the meantime, just the study of the Crisis Score can serve a great purpose. It is a great way to link theory and practice. Testing this model will force scholars to look at theories in new ways and provide a platform to encourage new angles from which to approach crisis communication problems. This study provided a strong link between SCCT and practice, and future studies are sure to uncover and strengthen new associations. Even for those who are not interested in the Crisis Score, hopefully this study will encourage them to look for other ways to combine theory and practice. Paired together, scholars and practitioners will be able to advance the field in many new ways.

| | Hill's Weight | Study Informed Weight |
|-------------------------|---------------|-----------------------|
| Brand | | |
| – Profile | | |
| – Prior Reputation | <u>40</u> | <u>50</u> |
| – Crisis History | | |
| – Sector/profession | | |
| Cause | | |
| – Willfulness | | |
| – Negligence | <u>50</u> | <u>35</u> |
| – Incompetence | | |
| Impact | | |
| – Internal Stakeholders | <u>10</u> | <u>15</u> |
| – Internal Stakeholders | | |

Figure 7. Revised Crisis Score weights

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Appendix A

Good Brand Stim (no history of crises and good prior reputation)

Explosion at Min Speed Refinery Rocks City (Reuters News Service, 2005)

WINNSBORO, Texas (April 6, 2017) – A powerful explosion rocked Min Speed's sprawling oil refining complex here, *injuring many and* causing extensive damage.

The explosion comes as a surprise as Min Speed has a good reputation within the oil industry. This is the company's first accident.

The facility is about 35 miles southeast of *the metropolitan area*. The explosion took place on the western side of the sprawling 1,200-acre complex in one of the units used to make high-grade fuels.

Company officials said the cause wasn't immediately known but that a terrorist act wasn't suspected in triggering the blast, which caused several scattered fires at the plant that took firefighters about two hours to extinguish. "It's a sad day for Min Speed," said site director *Chris Parus*.

The company said damage had been limited to an isomerization unit, and other parts of the refinery remained in operation. News of the refinery explosion sent gasoline futures prices on the New York Mercantile Exchange to all-time peaks above \$1.60 a gallon in electronic trading and boosted cash prices in the Gulf Coast region. Prices receded to around \$1.58 later, however.

Note: Changes from original news story in italics. References to deaths and exact number of injuries were omitted from both Brand stims.

Appendix B

Bad Brand Stim (crisis history and bad prior reputation)

Explosion at Min Speed Refinery Rocks City (Reuters News Service, 2005)

WINNSBORO, Texas (April 6, 2017) – A powerful explosion rocked Min Speed’s sprawling oil refining complex here, *injuring many and* causing extensive damage.

The explosion comes almost a year to the day after another blast and fire at the refinery and chemical complex. *Min Speed has a poor reputation when it comes to safety, including a total of three previous accidents similar to this one.*

The facility is about 35 miles southeast of *the metropolitan area*. The explosion took place on the western side of the sprawling 1,200-acre complex in one of the units used to make high-grade fuels.

Company officials said the cause wasn't immediately known but that a terrorist act wasn't suspected in triggering the blast, which caused several scattered fires at the plant that took firefighters about two hours to extinguish. "It's a sad day for Min Speed," said site director *Chris Parus*.

The company said damage had been limited to an isomerization unit, and other parts of the refinery remained in operation. News of the refinery explosion sent gasoline futures prices on the New York Mercantile Exchange to all-time peaks above \$1.60 a gallon in electronic trading and boosted cash prices in the Gulf Coast region. Prices receded to around \$1.58 later, however.

Note: Changes from original news story in italics. References to deaths and exact number of injuries were omitted from both Brand stims.

Appendix C

Cause *High Stim* (did intentionally cause act)

Tartan CEO Approved the Cheating of EPA Exhaust Test (Harder & Spector, 2015)

WASHINGTON (April 6, 2017) – *Tartan CEO, Cory Schrader admitted yesterday that the company knowingly dodged air-pollution rules on nearly half a million cars sold since 2008. The admission followed charges by the U.S. Environmental Protection Agency, as the agency furthered its crackdown on auto makers suspected of flouting regulations intended to reduce tailpipe emissions.*

Officials *have* alleged Tartan used software, dubbed a “defeat device,” that activates full emissions controls only during testing but then reduces their effectiveness during normal driving. *The result is the cars can emit nitrogen oxides at up to 40 times the allowable standard, the agency said.*

Tartan’s motivations for fooling the emissions tests *became clear yesterday. “We were dishonest. We have been under extreme pressure to meet strict EPA standards and keep a healthy profit margin,” said Tartan CEO, Cory Schrader.*

"Using a defeat device in cars to evade clean air standards is illegal and a threat to public health," said Taylor Giles, assistant administrator for the agency's enforcement group who later added: "These violations are very serious. We expected better from Tartan."

The emissions allegations come as Tartan already faces tough challenges in the U.S. Analysts say Tartan’s key U.S. vehicles are too expensive and out of step with consumer tastes. Tartan has been planning to unveil new products in coming years to

stem share losses. It is unclear now whether Tartan executives will keep plans to host a launch celebration Monday for a new vehicle.

Note: Changes from original news story in italics.

Appendix D

Cause *Low Stim* (did *not* intentionally cause act)

Tartan CEO *Unaware of Cheating* EPA Exhaust Test (Harder & Spector, 2015)

WASHINGTON (April 6, 2017) – *The initial investigation into whether Tartan deliberately dodged air-pollution rules on nearly half a million cars sold since 2008 has revealed a vendor for the company supplied a faulty emission controller, which allowed Tartan vehicles to emit nitrogen oxides at up to 40 times the allowable standard. The investigation was launched as part of the U.S. Environmental Protection Agency crackdown on auto makers suspected of flouting regulations intended to reduce tailpipe emissions.*

Tartan appears to be clear of any wrong-doing. Officials initially alleged Tartan used software, dubbed a “defeat device,” that activates full emissions controls only during testing but then reduces their effectiveness during normal driving. “Using a defeat device in cars to evade clean air standards is illegal and a threat to public health,” said Taylor Giles, assistant administrator for the agency's enforcement group who later added: “We are glad to learn that Tartan is not responsible for this crisis.”

The emissions allegations come as Tartan already faces tough challenges in the U.S. Analysts say Tartan’s key U.S. vehicles are too expensive and out of step with consumer tastes. Tartan has been planning to unveil new products in coming years to stem share losses. On Monday, Tartan officials were planning to host a launch

celebration for a new vehicle. It is unclear now whether executives will keep those plans.

Note: Changes from original news story in italics.

Appendix E

Impact *High* Stim (significant harm to people)

Ice Cream Linked to Salmonella *Poisoning of 224,000 People in 15 States* (“Ice cream linked to salmonella in 15 states,” 1994; Ulmer, 1998)

Albuquerque, Oct. 15 — Ice cream made in New Mexico is being blamed for *224,000* cases of salmonella *in at least 15 states, and investigators are trying to figure out the bacteria's source.*

The manufacturer, Cool Cream's Sales Enterprises in Albuquerque, N.M., recalled its ice cream last week after the *first reports* of food poisoning. Investigators have found salmonella bacteria in samples of Cool Cream's ice *cream eaten by people who became ill.*

Dr. Reagan Harker, an epidemiologist with the Federal Centers for Disease Control and Prevention, said on Friday that reports of food poisoning had come from *15 states. More cases are expected as the investigation continues.*

The ice cream could have been contaminated in several ways, investigators said. Cool Cream's suppliers turn the raw ingredients of milk, sugar and cream into a pasteurized mix that the company uses to make the ice cream.

Experts say actual cases of food-borne illnesses far outnumber reported cases. About 40,000 cases of laboratory-confirmed salmonella infection are reported to the C.D.C. each year, Dr. Harker said. But the C.D.C. estimates 2 million to 4 million actual cases a year, many of which are mistaken for stomach flu.

Note: Changes from original news story in italics.

Appendix F

Impact *Low* Stim (little harm to people)

Ice Cream Linked to *Minor Salmonella Outbreak* (“Ice cream linked to salmonella in 15 states,” 1994)

Albuquerque, Oct. 15 — *The salmonella outbreak in New Mexico, responsible for five illnesses, has been contained.* The manufacturer, Cool Cream's Sales Enterprises in Albuquerque, N.M., recalled its ice cream last week after the report of food poisoning from investigators that found *salmonella bacteria in samples of Cool Cream's ice cream.*

Dr. Reagan Harker, an epidemiologist with the Federal Centers for Disease Control and Prevention, said on Friday that reports of food poisoning had come from *only one city and have affected less than .001 percent of Cool Cream's customer base.*

The ice cream was apparently contaminated by a truck that had transported eggs carrying the virus. Cool Cream's suppliers turn the raw ingredients of milk, sugar and cream into a pasteurized mix that the company uses to make the ice cream, *and that mix was placed in the truck after the eggs were offloaded.*

Experts say actual cases of food-borne illnesses far outnumber reported cases. About 40,000 cases of laboratory-confirmed salmonella infection are reported to the C.D.C. each year, Dr. Harker said. But the C.D.C. estimates 2 million to 4 million actual cases a year, many of which are mistaken for stomach flu.

Note: Changes from original news story in italics.

Appendix G

Pre-test

Fictitious Organization Check

How familiar are you with the following brands?

1. Bear
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
2. Spuds
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
3. Min Speed
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
2. Harls
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
5. Tartan
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
6. Jack Wagon
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
7. Tiger
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
8. Wagon Queen
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
9. Cool Cream's
1 2 3 4 5 6 7
Very Unfamiliar Neither Familiar or Unfamiliar Very Familiar
10. Fairy Bushes
1 2 3 4 5 6 7

| | | | | | | | |
|----------------------|-----------------|---|--------------------------------|---|---|---------------|---|
| | Very Unfamiliar | | Neither Familiar or Unfamiliar | | | Very Familiar | |
| 11. Express Eat | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Very Unfamiliar | | Neither Familiar or Unfamiliar | | | Very Familiar | |
| 12. Chicken Brothers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Very Unfamiliar | | Neither Familiar or Unfamiliar | | | Very Familiar | |

Manipulation Check Brand Good/Bad Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. Min Speed had a good reputation prior to this crisis.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree
2. Min Speed had a history of crises prior to this crisis.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

Manipulation Check Cause High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. To what degree do you think the incident was caused by Tartan?
1 2 3 4 5 6 7
Not at all Caused Neither Caused nor Did Not Cause Completely Caused

Manipulation Check Impact High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. This crisis caused harm to a significant number of people.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

Appendix H

Questionnaire Instructions and Items

Manipulation Check Brand Good/Bad Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. Min Speed had a good reputation prior to this crisis.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

2. Min Speed had a history of crises prior to this crisis.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

Items for Brand Good/Bad Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. Min Speed is friendly.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

2. Min Speed is likeable.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

3. Min Speed has high ethical standards.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

4. Min Speed has a good management style.
1 2 3 4 5 6 7
Strongly Disagree Neither Agree nor Disagree Strongly Agree

5. I would purchase a product from or use Min Speed's services.
1 2 3 4 5 6 7
Very Unlikely Neither Likely nor Unlikely Very Likely

6. I would recommend Min Speed's product or services to a friend.
1 2 3 4 5 6 7
Very Unlikely Neither Likely nor Unlikely Very Likely

7. If in the market, I would be interested in requesting more information about Min Speed's products or services.
- | | | | | | | |
|---------------|---|---|-----------------------------|---|---|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Very Unlikely | | | Neither Likely nor Unlikely | | | Very Likely |
8. Circumstances, not Min Speed, are responsible for the crisis.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
9. The blame for the crisis lies with Min Speed.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
10. The blame for the crisis lies in the circumstances, not Min Speed.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
11. Min Speed is concerned with the well-being of its publics.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
12. Min Speed is basically dishonest.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
13. I do not trust Min Speed to tell the truth about the incident.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
14. Under most circumstances, I would be likely to believe what Min Speed says.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |
15. Min Speed is not concerned with the well-being of its publics.
- | | | | | | | |
|-------------------|---|---|----------------------------|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | | Neither Agree nor Disagree | | | Strongly Agree |

Manipulation Check Cause High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. To what degree do you think the incident was caused by Tartan?
- | | | | | | | |
|-------------------|---|----------------------------------|---|---|-------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Not at all Caused | | Neither Caused nor Did Not Cause | | | Completely Caused | |

Items for Cause High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. Tartan is friendly.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

2. Tartan is likeable.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

3. Tartan has high ethical standards.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

4. Tartan has a good management style.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

5. I would purchase a product from or use Tartan's services.

| | | | | | | |
|---------------|---|-----------------------------|---|---|-------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |

6. I would recommend Tartan's product or services to a friend.

| | | | | | | |
|---------------|---|-----------------------------|---|---|-------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |

7. If in the market, I would be interested in requesting more information about Tartan's products or services.

| | | | | | | |
|---------------|---|-----------------------------|---|---|-------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |

8. Circumstances, not Tartan, are responsible for the crisis.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

9. The blame for the crisis lies with Tartan.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

10. The blame for the crisis lies in the circumstances, not Tartan.

| | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

11. Tartan is concerned with the well-being of its publics.

- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
12. Tartan is basically dishonest.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
13. I do not trust Tartan to tell the truth about the incident.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
14. Under most circumstances, I would be likely to believe what Tartan says.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
15. Tartan is not concerned with the well-being of its publics.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

Manipulation Check Impact High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. This crisis caused harm to a significant number of people.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |

Items for Impact High/Low Stories

For each of the statements below, select the response that best characterizes how you feel about the statement.

1. Cool Cream's is friendly.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
2. Cool Cream's is likeable.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
3. Cool Cream's has high ethical standards.
- | | | | | | | |
|-------------------|---|----------------------------|---|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
4. Cool Cream's has a good management style.

- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
5. I would purchase a product from or use Cool Cream's services.
- | | | | | | | | |
|--|---------------|---|-----------------------------|---|---|-------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |
6. I would recommend Cool Cream's product or services to a friend.
- | | | | | | | | |
|--|---------------|---|-----------------------------|---|---|-------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |
7. If in the market, I would be interested in requesting more information about Cool Cream's products or services.
- | | | | | | | | |
|--|---------------|---|-----------------------------|---|---|-------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Very Unlikely | | Neither Likely nor Unlikely | | | Very Likely | |
8. Circumstances, not Cool Cream's, are responsible for the crisis.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
9. The blame for the crisis lies with Cool Cream's.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
10. The blame for the crisis lies in the circumstances, not Cool Cream's.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
11. Cool Cream's is concerned with the well-being of its publics.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
12. Cool Cream's is basically dishonest.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
13. I do not trust Cool Cream's to tell the truth about the incident.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
14. Under most circumstances, I would be likely to believe what Cool Cream's says.
- | | | | | | | | |
|--|-------------------|---|----------------------------|---|---|----------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | Strongly Disagree | | Neither Agree nor Disagree | | | Strongly Agree | |
15. Cool Cream's is not concerned with the well-being of its publics.

1 2
Strongly Disagree

3 4 5
Neither Agree nor Disagree

6 7
Strongly Agree

Demographics

What is your age? (fill in the blank)

Did you complete this question on a computer or mobile device?

- Computer
- Mobile

What is your gender?

- Male
- Female

What is the highest level of education you have completed?

- Less than high school
- High School/GED
- Some College
- 2-Year College Degree
- 4-Year College Degree
- Master's Degree
- Doctoral Degree
- Professional Degree (JD, MD, etc.)

Currently are you

- Employed full-time
- Employed part-time
- Not currently employed

What is your race?

- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Pacific Islander
- Other (please specify) _____
- Prefer Not to Answer

State In what state are you currently located?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut

- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington

- West Virginia
- Wisconsin
- Wyoming
- U.S. Territory

The news stories you have just read were based on real news stories from the past 25 years. The news stories were altered to change different actions or attributes held by the organizations. The names of the organizations and people in the stories were changed to fictitious names.

Appendix I

Recruitment Material

I invite you to participate in my research project entitled Quantifying Crises' Effects on Organizational Reputation. This research is being conducted at the University of Oklahoma-Norman campus. You must be at least 18 years of age to participate in this study.

The purpose of this research is to understand how difficult it is for organizations with different characteristics to overcome crises.

You will be asked to read three news articles and answer questions on your feelings about the companies in the articles.

Your participation will take 10-15 minutes to complete.

You will be reimbursed for your time and participation in this research. Each participant will be paid \$0.75 for satisfactorily completing the questionnaire.

There will be no information that will make it possible to identify you. This is an academic not-for-profit research project. Data are collected via Qualtrics, an online survey system that has its own privacy and security policies for keeping your information confidential. Please note no assurance can be made as to the use of the data you provide for purposes other than this research.

The University of Oklahoma is an Equal Opportunity Institution.

MAKE SURE TO LEAVE THIS WINDOW OPEN AS YOU COMPLETE THE SURVEY. When you are finished, you will return to this page to paste the code into the box.

Appendix J

Online Consent Form

Would you like to be involved in research at the University of Oklahoma?

I am Ace Castle from the Gaylord College of Journalism & Mass Communication at the University of Oklahoma and I invite you to participate in my research project entitled Quantifying Crises' Effects on Organizational Reputation. This research is being conducted at the University of Oklahoma-Norman campus. You were selected as a possible participant because you meet the age qualification. You must be at least 18 years of age to participate in this study.

Please read this document and contact me to ask any questions that you may have BEFORE agreeing to take part in my research.

What is the purpose of this research? The purpose of this research is to understand how difficult it is for organizations with different characteristics to overcome crises.

How many participants will be in this research? About 450 people will take part in this research.

What will I be asked to do? If you agree to be in this research, you will be asked to read three news articles and answer questions on your feelings about the company in each.

How long will this take? Your participation will take approximately 10-15 minutes to complete.

What are the risks and/or benefits if I participate? There are no risks and no benefits from participating in this research.

Will I be compensated for participating? You will be reimbursed for your time and participation in this research. Each participant will be paid \$0.75 for satisfactorily completing the questionnaire. To be a satisfactory completion, you must read all three news stories and read and answer all questions.

Who will see my information? In research reports, there will be no information that will make it possible for the researcher to identify you. Research records will be stored securely and only approved researchers and the OU Institution Review Board will have access to the records.

In addition, this is an academic not-for-profit research project. Data are collected via mTurk, an online survey system that has its own privacy and security policies for keeping your information confidential. Please note no assurance can be made as to the use of the data you provide for purposes other than this research. Qualtrics and mTurk will have access to information you choose to give them, but I do not have access to any personally identifiable information other than what you choose to submit in the survey.

Do I have to participate? No. Participation in this study is voluntary. If you do not participate, you will not be penalized or lose benefits or services unrelated to the research. If you decide to participate, you are free to not answer any question or discontinue participation at any time. However, there will be questions designed to check if you are reading them. Failing to answer these correctly will result in nonpayment.

Who do I contact with questions, concerns or complaints? If you have questions, concerns or complaints about the research or have experienced a research-related injury, contact me at (405) 325-2721 or ace@ou.edu. Dr. Glenn Leshner can be reached at (405) 325-4143 or leshnerg@ou.edu.

You can also contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu if you have questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than the researcher(s) or if you cannot reach the researcher(s).

Please print this document for your records. By providing information to the researcher(s), I am agreeing to participate in this research.

This research has been approved by the University of Oklahoma, Norman Campus IRB.

IRB Number: 7939

Approval date: 4.4.17

Appendix K

IRB Approval Letter



Institutional Review Board for the Protection of Human Subjects
Approval of Initial Submission – Exempt from IRB Review – AP01

Date: April 04, 2017

IRB#: 7939

Principal Investigator: Ace Vernon Castle

Approval Date: 04/04/2017

Exempt Category: 2

Study Title: Quantifying Crises' Effects on Organizational Reputation

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

A handwritten signature in black ink, appearing to read 'Ioana A. Cionea'.

Ioana Cionea, PhD
Vice Chair, Institutional Review Board

Appendix L

IRB Modification Approval (for Second Pre-test)



Institutional Review Board for the Protection of Human Subjects
Approval of Study Modification – Expedited Review – AP0

Date: April 07, 2017 **IRB#:** 7939
Principal Investigator: Ace Vernon Castle **Reference No:** 664496

Study Title: Quantifying Crises' Effects on Organizational Reputation

Approval Date: 04/07/2017

Modification Description:

Manipulation Check Change in news story and increasing number of participants to 650.

The review and approval of this submission is based on the determination that the study, as amended, will continue to be conducted in a manner consistent with the requirements of 45 CFR 46.

To view the approved documents for this submission, open this study from the My Studies option, go to Submission History, go to Completed Submissions tab and then click the Details icon.

If the consent form(s) were revised as a part of this modification, discontinue use of all previous versions of the consent form.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or irb@ou.edu. The HRPP Administrator assigned for this submission: Nicole A Cunningham.

Cordially,

A handwritten signature in black ink, appearing to read 'Ioana A. Cionea'.

Ioana Cionea, PhD
Vice Chair, Institutional Review Board